

Compliance Assurance Monitoring Rulemaking (40 CFR Parts 64, 70, and 71)
Responses to Public Comments (Part III)

(Comments Submitted in Response to 1996 Part 64 Draft)

October 2, 1997

Compliance Assurance Monitoring Rulemaking (40 CFR Parts 64, 70, and 71)
Responses to Public Comments (Part III)

Table of Contents

	<u>Page</u>
INTRODUCTION	1
Section 1: Definitions	4
Section 1.1: Control Device Definition	4
Section 1.2: Capture System Definition	18
Section 1.3: Continuous Compliance Determination Method Definition	20
Section 1.4: Other Definitions	22
Section 2: Applicability	34
Section 2.1: Applicability of 1996 CAM Draft Subpart B	34
Section 2.2: Subpart C Applicability	61
Section 2.3: Exemptions	66
Section 2.4: Miscellaneous Applicability Issues	96
Section 3: Implementation	102
Section 3.1: Timing of Implementation	102
Section 3.2: CAM Elements in Permits	123
Section 3.3: Operation of Monitoring	148
Section 3.4: Existing Monitoring	152
Section 3.5: Costs to Permittees/Programmatic Option	154
Section 3.6: Information for Permittees	160
Section 3.7: Approval Procedures	162
Section 4: Recordkeeping and Reporting	165
Section 4.1: Semiannual Reports	165
Section 4.2: Reporting-QIP Notice	167
Section 4.3: Records to be Kept	171
Section 4.4: Alternative Recordkeeping Formats	172
Section 4.5: Off-site Storage of Records	173
Section 4.6: Other Reporting and Recordkeeping Issues	174

Compliance Assurance Monitoring Rulemaking (40 CFR Parts 64, 70, and 71)
Responses to Public Comments (Part III)

Table of Contents

	<u>Page</u>
Section 5: Savings Provisions	176
Section 6: Monitoring Design Criteria	178
Section 6.1: Subpart B-General Criteria	178
Section 6.2: Subpart B Performance Criteria	198
Section 6.3: Use of CEMS, COMS, PEMS in Subpart B	211
Section 6.4: Cost/Source Features as Factors in Monitoring Selection	218
Section 7: Subpart B CAM Plans	222
Section 7.1: General Comments	222
Section 7.2: Permit Interface	224
Section 7.3: Ability to Add Elements	226
Section 7.4: Corrective Action Provisions	226
Section 7.5: Miscellaneous Comments	229
Section 8: Documentation Requirements	232
Section 8.1: Rationale for Monitoring	232
Section 8.2: Indicator Range Verification	234
Section 9: Subpart C Requirements	246
Section 9.1: General Comments	246
Section 9.2: No Monitoring Option	251
Section 9.3: More Stringent State/Local Requirements	252
Section 9.4: Miscellaneous Comments	252
Section 10: Quality Improvement Plans (QIPs)	254
Section 10.1: QIPs - Need for More Flexibility	254
Section 10.2: Threshold for Requiring a QIP (64.10)	258

Compliance Assurance Monitoring Rulemaking (40 CFR Parts 64, 70, and 71)
Responses to Public Comments (Part III)

Table of Contents

	<u>Page</u>
Section 10.3: Elements of QIPs (64.11(a))	267
Section 10.4: Timing of QIPs (64.11(b))	269
Section 10.5: Recordkeeping and Reporting for QIPs (64.11(c))	272
Section 11: [Reserved]	273
Section 12: Part 70/71 Revisions	274
Section 12.1: Monitoring Revisions	274
Section 12.2: Compliance Certification	278
Section 12.3: Deviation Definition	290
Section 13: General Statutory Issues	294
Section 14: Enforcement Concerns	302
Section 14.1: Effect on Existing Standards	302
Section 14.2: Relationship of CAM and Credible Evidence (CE) Rule	308
Section 14.3: Purpose of CAM and its Role in Enforcement	317
Section 14.4: Effectiveness of CAM Information for Enforcement	324
Section 14.5: CAM Shield	328
Section 14.6: Miscellaneous	331
Section 15: Procedural Issues	332
Section 15.1: Administrative Procedures Act	332
Section 15.2: OMB Review/Regulatory Impact Analysis (prior to release of RIA sections)	343
Section 15.3: Regulatory Impact Analysis (Reopened Comment Period)	346
Section 15.4: Paperwork Reduction Act	354
Section 15.5: Unfunded Mandates Reform Act	355
Section 15.6: Regulatory Flexibility Act	355
Section 16: Guidance	357

October 2, 1997

Compliance Assurance Monitoring Rulemaking (40 CFR Parts 64, 70, and 71)
Responses to Public Comments (Part III)

Table of Contents

	<u>Page</u>
Section 17: General Comments	365
Section 17.1: CAM Approach	365
Section 17.2: General Comments on the Current Proposal	367
Section 17.3: Complexity and Clarity of CAM	370
Section 17.4: CAM Rulemaking Process	372
Section 17.5: Other General Concerns	373
Section 17.6: Comments on Credible Evidence Rulemaking	374
Section 17.7: Benefits and Burdens of CAM Rule	377
Section 17.8: Delegation of Authority to States	381
Section 17.9: Implementation Concerns and Recommendations	383
Appendix III-A: List of Comment Letters for Response (Part III): EPA Air Docket A-91-52	

October 2, 1997

INTRODUCTION

This Part III of the three part Compliance Assurance Monitoring Rulemaking Responses to Public Comment Document summarizes the written comments submitted during the comment period on the 1996 part 64 Draft and the comment period on the impact analyses for the rulemaking and the credible evidence relationship (see 61 FR 41991, August 13, 1996 and 60 FR 20147, April 25, 1997).

The Compliance Assurance Monitoring Rule contained in part 64 and the conforming amendments to parts 70 and 71 are being promulgated in response to the direct mandate in section 114(a)(3), as well as the supporting authority in sections 504(b) and 113, of the Clean Air Act (the "Act"). Part 64 builds on existing regulatory monitoring approaches in order to provide a reasonable assurance that owners and operators are complying with emissions limitations or standards. The regulations require owners and operators to meet minimum monitoring requirements designed to ensure that control measures are operated and maintained in a manner consistent with good air pollution control practices. The amendments to parts 70 and 71 clarify the relationship between part 64 and the compliance certification process under the title V operating permits program.

The EPA proposed these regulations on October 22, 1993, at 58 FR 54648. The proposal announced the opportunity for written public comment until December 20, 1993, which date was subsequently extended until January 31, 1994. The proposal also provided notice of a public hearing, which was conducted in Washington, D.C. on November 19, 1993. The public comment period was reopened from December 28, 1994 until February 3, 1995 to take additional comment on a limited number of specific issues.

The Agency decided to redesign elements of the part 64 rulemaking in April 1995. On May 31, 1995, the EPA held a public hearing to discuss the potential redesign of part 64. Follow-up meetings were held in June 1995 in Washington, D.C., Cincinnati, Dallas, and Portland, Oregon. An initial draft of the compliance assurance monitoring rule and preamble were made available for public discussion and comment at another public meeting held in September 1995. Based on the public comment received on that interim draft, EPA released a second draft in August 1996 and once again took comment on the draft part 64 rule. In addition, a public meeting was held to obtain oral input as well.

A complete transcript of the initial public hearing, summaries of all subsequent public meetings, the full text of each comment letter, and the supporting information used in developing the regulations, are contained in Docket No. A-91-52. This docket is available for public inspection and copying between 8:00 a.m. and 5:30 p.m. Monday

through Friday, excluding government holidays, at Room M-1500, Waterside Mall, 401 M Street S.W., Washington, D.C. The public comments on the original enhanced monitoring proposal are found at Section IV-D of the docket and are numbered from IV-D-1 through IV-D-772. When the Agency determined to redesign the original proposal in April 1995 to reflect the CAM approach, new material relied on for the rulemaking was placed in Section VI of the docket. The public comments are included in section VI-D of the rulemaking docket.

In March 1996, EPA decided to proceed with the credible evidence provisions proposed with the original enhanced monitoring requirements. The Agency took additional public comment on those provisions and those comments are included in the docket as items IV-D-774 through IV-D-843. The Agency has responded to those comments as well as comments submitted in response to the original proposal that related to the credible evidence provisions in finalizing the credible evidence provisions on February 24, 1996 (62 FR 8314). See Docket A-91-52-V-C-2 for a copy of that response to comments document, which is referred to as the "CE Response Document" throughout the remainder of this document.

Because of the extended time period over which comments have been submitted on this rulemaking, this document is divided into three parts. First, Part I addresses the comments received during the initial public comment period (docket items IV-D-1 through IV-D-542). Part II then addresses the comments submitted during the December 1994-February 1995 reopened comment period (docket items IV-D-547 through IV-D-762). Finally, Part III addresses the comments submitted in response to the August 1996 Part 64 draft (docket items VI-D-114 through VI-D-243), as well as comments submitted during the reopened comment period in April-May 1997 (VI-D-244 through VI-D-274). Comments submitted early in the development of the CAM approach were considered by the Agency in formulating both the 1995 Part 64 Draft and the 1996 Part 64 Draft. The details of those comments related to preliminary staff-level ideas about possible rule structures. Comments on major structural issues have remained generally consistent over time (i.e., use of Part 64 data for enforcement, implementation through Part 70 permits, scope of applicability, and the level of justification and testing needed to support proposed monitoring). Thus, the Agency believes that the release of follow-up drafts of the rule and accompanying discussion materials, and the responses to comments included in Parts I-III of this document adequately address these additional comments.

The reader should note that many of the most significant comments from these comment periods are also responded to in the preamble to the final rule, and the

responses in this document cross-reference the appropriate discussion in the preamble where appropriate.

This document also includes appendices. Appendices I-A, II-A and III-A are lists of all comment letters received in the rulemaking docket during the initial comment period, the 1994-1995 reopened comment period, the comment period following release of the 1996 part 64 Draft, and the 1997 reopened comment period, as well as all oral testimony provided at the public hearing. (Comments submitted to the docket use a "IV-D-" or a "VI-D" prefix, while comments from the public hearing use a "IV-F" prefix.)

This document includes many citations to other authorities outside of part 64 or the conforming amendments. These citations are generally not followed by their origin, such as "of the Clean Air Act." Rather, the reader can recognize the origins of the sections by their nature: sections of existing EPA regulations are preceded by 40 CFR, except in the case of 40 CFR part 70, which is frequently cited only as "part 70," and sections therein cited as, e.g., "§ 70.2." Sections of the Act are referenced by a three digit number, such as "114" or "504." This document also often refers to "State" or "permitting authority." The reader should assume that where the document refers to a "State," the reference 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.

Section 1: Definitions

Section 1.1: Control Device Definition

1.1.1: Breadth of Control Device Definition

Comment a: Many commenters argued that the control device definition included in the 1996 CAM Draft was too broad. The concerns described by these commenters and the recommendations made are described below.

One of these commenters expressed concern that too many emissions units would be subject to subpart B of the 1996 CAM Draft, resulting in higher costs without any significant environmental benefit.

Response: The Agency disagrees that the rule would require monitoring on too many emission units with no environmental benefit. The Agency believes that the CAM approach results in tangible benefits to the general public health and welfare. A primary benefit of implementing part 64 will be a reduction in overall emissions through increased compliance with the requirements of the Act. The key elements of part 64 that will result in these reductions are monitoring that alerts owners or operators to deteriorating control conditions and the associated requirement that the owner or operator take the steps necessary to correct those conditions. This approach emphasizes minimizing emissions by avoiding or quickly remedying situations that may involve emissions in excess of applicable requirements. In addition to the direct environmental benefit of decreased emissions, increased compliance rates also achieve a corollary economic benefit. As a general matter, increased compliance rates with existing rules will lower the long-term overall cost of air pollution control by decreasing the need for additional regulations to obtain necessary emission reductions, especially for nonattainment areas.

The Agency believes that there is adequate evidence that monitoring control performance will improve continuing compliance with applicable requirements. Studies conducted by the Agency have shown that control device operation and maintenance problems are a significant factor in creating excess emissions (see docket items II-A-22 and VI-A-2). In

addition, these studies have documented that assumptions about compliance status are often inaccurate when detailed inspections of control devices are conducted (see, for example, docket item VI-A-2).

Letter(s): American Petroleum Institute (VI-D-146)

Comment b: One commenter argued that the broad definition would cause confusion over the application of other air rules by introducing doubts about what is process equipment and what is a control device. This commenter pointed out that a broad control device definition would illegally change the applicability of underlying rules by imposing control device requirements on a device defined in an underlying rule as process equipment.

Response: To address this concern, the final rule specifies that if an applicable requirement establishes that particular equipment which otherwise meets the definition of a control device does not constitute a control device as applied to a particular pollutant-specific emissions unit, then that definition shall be binding for purposes of part 64.

Letter(s): Exxon Chemical Americas (VI-D-128)

Comment c: Several commenters noted that it was difficult to distinguish between control devices and process equipment under the definition of control device in the 1996 CAM Draft. Chemical industry commenters stated that the incorporation of chemical unit operations and process units in the list of control devices opens the door to a potential claim that any chemical unit operation or process which involves VOCs is a control device and subject to CAM. Other commenters noted that the rule language in the 1996 CAM Draft did not reflect the criteria for making judgments on the classification of devices that can be either process or control equipment provided in that draft's discussion and recommended including those criteria listed in the rule definition itself.

Chemical industry and other commenters proposed revisions to the definition of control device and accompanying revisions to the guidance document to consider the purpose of the device including such factors as the cost savings from recovered product compared to the cost of the equipment and whether the device would be installed in the absence of

air regulations. A commenter discussed the use of cyclone separation on FCCUs used to recover catalyst and catalyst fines as an example of the need to distinguish control devices from process equipment that incidentally may remove pollutants but are used to make the process work not to comply with emission limits. One chemical industry commenter requested that EPA establish that chemical processes which handle materials that would be pollutants if released to the atmosphere are not control devices in order to fulfill the preamble's promise of a narrow definition.

However, one commenter argued that the criterion based on cost comparisons is inappropriate because cost aspects can change over time and others pointed out that a control measure may be installed for a safety reason even though its cost is disproportionate to the value of product recovered. These commenters argued that the criteria in the preamble may be inappropriate and that the sole basis for considering equipment to be a control device is whether the only purpose of such equipment is to destroy or remove air pollutants.

Another commenter stated that, at a minimum, the definition should include the requirement that the primary function of the equipment is to remove air pollutants. The commenter requested that equipment that has a secondary function of removing pollutants should be specifically exempted and gave examples including: mechanical collectors used to remove pneumatically conveyed material from the conveying air stream or used to capture product prior to final control by another piece of equipment; wet scrubbers used to capture product prior to final control by other equipment; sulfuric and nitric acid plants which use double contact and extended absorption processes as inherent process equipment to enhance product recovery; and process condensers used in chemical manufacturing and other industries to recover product.

Other commenters noted that adding language that refers to the purpose for which a device is installed to the control device definition would serve the purpose of excluding recovery devices that are integral to a process from the CAM definition of "control device." Several commenters proposed specific language to be added to definition of the "control device" to exclude recovery devices and discussed the appropriate distinction between a recovery device as an integral part of a process and as an add-on control by using a distillation column example where the

vent condenser may or may not fall within the equipment monitored by the source to maximize the economic benefit of product recovery.

One commenter added a request that EPA establish a presumption that a source's determination that particular equipment is process equipment instead of a control device is correct and require the permitting authority to meet a significant burden to overcome that presumption.

A number of commenters focused on how recovery devices would be treated under the control device definition in the 1996 CAM Draft. Two commenters argued that the CAM definition of "control device" should be consistent with recent rules such as the HON or the Refinery MACT and should not include devices such as adsorption devices and condensers which are defined as recovery devices in many current regulations. One of these commenters felt that although MACT standards are exempt from CAM, the definition in the 1996 CAM Draft could cause confusion leading to regulatory uncertainty or overlaps. The commenter pointed to units such as sulfur recovery plants as devices that are part of the refinery process and should not be treated as control devices for purposes of CAM. The other commenter pointed out that the HON rule demonstrates EPA's recognition that control devices are operations that destroy air pollutants or collect air pollutants for destruction, since the calculation of the TRE takes place after the last recovery device. The commenter recommended that CAM be made consistent with this current, progressive view which encourages pollution prevention by not subjecting product recovery operations to air pollution control requirements. One commenter added that an upstream recovery device should not be considered an active control since the operator has every incentive to maintain and operate it properly.

Response: The Agency generally agrees with these concerns and, based on the comments received, the final rule defines "inherent process equipment" as "equipment that is necessary for the proper or safe functioning of the process, or material recovery equipment that the owner or operator documents is installed and operated primarily for purposes other than compliance with air pollution regulations." In addition, the control device definition has been revised to include a list of several control techniques that do not constitute "control devices" as defined in part 64. Part 64 makes clear that the responsibility to identify process equipment is that of the source owner or operator in preparing the permit application. In most

cases, this activity is already part of the permitting process (see, e.g., 40 CFR 70.5). However, EPA does not believe it would be appropriate to create a presumption that a source owner's determination of equipment as inherent process equipment is correct without permitting authority review.

Letter(s): Air Products and Chemicals, Inc. (VI-D-186); American Automobile Manufacturers Association (VI-D-157); American Gas Association (VI-D-154); American Petroleum Institute (VI-D-146); Chemical Manufacturers Association (VI-D-152); Clean Air Implementation Project (VI-D-153); Coalition for Clean Air Implementation (VI-D-164); Coastal Corporation (VI-D-123); Colorado Association of Commerce and Industry (VI-D-182); DuPont Engineering (VI-D-127); Eastman Chemical Company (VI-D-173); Eli Lilly Company (VI-D-124); Exxon Chemical Americas (VI-D-128); Exxon Company, USA (VI-D-135); General Electric Company (VI-D-156); Independent Liquid Terminals Association (VI-D-178); KBN Engineering and Applied Sciences, Inc. (VI-D-229); Kennecott Corporation (VI-D-119); Mobil Corporation (VI-D-115); Ohio Chamber of Commerce, et al (VI-D-160); Pennzoil Company (VI-D-133); Texaco Environment Health & Safety (VI-D-199)

Comment d: Some commenters recommended adding a definition of "active control device" to fulfill the Agency's stated intent to focus the rule on active controls and to provide clarity on a term often used by the Agency in connection with this rule. Certain commenters stated that the definition should turn on whether or not the device requires attention to maintain good operation.

Response: The Agency agrees with these concerns and has provided in the final rule that the requirements of part 64 apply only to pollutant-specific emissions units that rely on a control device to achieve compliance. The final rule provides a definition of "control device" that reflects the focus of part 64 on those types of control devices that are usually considered as "add-on controls." This definition does not encompass all conceivable control approaches but rather those types of control devices that may be prone to upset and malfunction, and that are most likely to benefit from monitoring of critical parameters to assure that they continue to function properly. In addition, a regulatory obligation to monitor control devices is appropriate because these devices generally are not an inherent part of

the source's process and may not be watched as closely as devices that have a direct bearing on the efficiency or productivity of the source.

The control device definition is based on similar definitions in some State regulations (see, e.g., North Carolina Administrative Code, title 15A, chapter 2, subchapter 2D, section .0101 (definition of "control device"); Texas Administrative Code, title 30, section 101.1 (definition of "control device"). The definition is in contrast to broader definitions of "control device," "air cleaning equipment," "control measure," or similar terms included in other States' regulations (see, e.g., Codes, Rules, and Regulations of the State of New York, title 6, chapter III, section 200.1 (definition of "air cleaning device" or "control equipment")). These broader definitions often include any method, process or equipment which removes, reduces or renders less noxious air contaminants released to the ambient air. Those types of controls could include material substitution, process modification, operating restrictions and similar types of controls. The definition in part 64 relies on the narrow interpretation of a control device that focuses on control equipment that removes or destroys air pollutants.

Letter(s): Chemical Manufacturers Association (VI-D-152); Coastal Corporation (VI-D-123); Colorado Association of Commerce and Industry (VI-D-182); Exxon Chemical Americas (VI-D-128)

Comment e: A few commenters criticized the criteria included in the discussion accompanying the 1996 CAM Draft because they do not distinguish equipment which reduces the formation of pollutants from control devices. They asked that EPA clarify in the rule that pollution prevention devices, such as low NO_x burners, are not considered control devices and also argued that this clarification is consistent with the intent stated in the CAM preamble to adopt a narrow definition of control device. These commenters added that this clarification is necessary to prevent the imposition of CAM requirements on units not intended to be covered and to promote consistent national implementation of CAM. Finally, they noted that the clarification is consistent with EPA's Common Sense Initiative to reduce unnecessary regulation that can impede pollution prevention. One commenter proposed clearly excluding these devices by adding a definition of pollution prevention referring to any activity that reduces the release of air pollutants prior to recycling, treatment, or

disposal and noted that the proposed definition is similar to the definition proposed for the PSD/NSR rule. 61 Fed. Reg. 38250, 38324 (July 23, 1996.)

Response: The Agency generally agrees with the commenters concerns as far as the use of low-NO_x burner technology and certain other types of combustion control measures. These technologies were not included in the control device definition in the August 1996 Draft CAM rule and are not included in the definition of "control device" in the final rule. For most large emissions units that employ such measures, such as utility boilers, separate applicable requirements already require the use of CEMS or similar monitoring for such units. Under part 70, that monitoring will have to be included in the permit and considered in certifying compliance with applicable requirements. Some types of combustion units (e.g., package boilers and engines) that may use low-NO_x burner technology do not use the same types of technology used by utility and large industrial boilers. The technology used for many units with automatic combustion control does not provide significant operational flexibility that could afford the owner or operator with an opportunity or incentive to manipulate NO_x control levels. For these types of units, the recordkeeping of regular inspection and maintenance of the low-NO_x burners (e.g., annular flow ratio adjustment settings, burner replacement, etc.) in combination with periodic checks of emission levels with appropriate test methods, as necessary, are very likely sufficient to ensure that the unit is being operated in a manner consistent with good air pollution control practices and that the low-NO_x technology continues to reduce emissions at least to the level of the standard. The general monitoring requirements in part 70 are adequate to assure that this type of appropriate monitoring is employed.

For these reasons, EPA believes that monitoring for this control technology is best addressed through part 70 periodic monitoring requirements and not through expansion of part 64 to units with these types of control measures. Of course, if there are particular units which raise a significant continuous compliance concern, such as units with an historically poor compliance history, the permitting authority can require more detailed monitoring under the general part 70 monitoring provisions given that the permit must include appropriate monitoring for assuring compliance with the permit. In those cases, permitting authorities may

want to consider elements of part 64 as potentially appropriate, but they would not be bound to satisfy each element of part 64.

Letter(s): American Gas Association (VI-D-154); Columbia Gas System Service Corporation (VI-D-175); Enron Operations Corp. (VI-D-235)

1.1.2: General Supporting Comments

Comment a: One commenter stated general support for the definition of control device and/or guidance document as being accurate and consistent with other regulations. A commenter who found the control device definition in the 1996 CAM Draft to be too broad indicated that it was an improvement over the previously proposed definition of "control technology" since the control device definition is limited to "equipment" rather than "methods," and eliminates specific references to "process elements" or "other forms of limiting emissions." Other commenters summarized and offered support for Agency positions reflected in the definition, such as a determination that various pollution prevention techniques, including NO_x control techniques such as modified furnace/burner design, staged combustion, reduced combustion-air preheat, and low excess air firing, are not active control devices, and recognition that permitting authorities should exercise discretion to exclude equipment that in a particular case is an inherent element of the process even though in other cases it may be considered a control device.

Response: No response necessary.

Letter(s): Chemical Manufacturers Association (VI-D-152); Kennecott Corporation (VI-D-119); Pennsylvania Chamber of Business and Industry (VI-D-114); The Fertilizer Institute (VI-D-145)

1.1.3: Comments on the Control Device Guidance

Comment a: A number of commenters objected to identification of certain types of equipment as "control devices" in EPA's control device guidance document. General recommendations included clarifying that some of the equipment types in Table 1 can also be recovery devices that are integral to a process and expanding the guidance to include descriptions of each

device that help to distinguish between process equipment and control equipment.

Response: As noted in responses to several comments in section 1.1.1 (Part III) above, the Agency recognizes that some equipment identified as control equipment may, in some applications, be more correctly characterized as inherent process equipment. The final rule provides for the owner or operator to identify such situations in the permit application and indicate that monitoring under part 64 is not required. The permitting authority will evaluate whether a determination that such equipment qualifies as inherent processing equipment is correct upon permit application review.

Letter(s): Eastman Chemical Company (VI-D-173); Exxon Chemical Americas (VI-D-128)

Comment b: A group of comments were submitted on the issue of how certain NO_x controls should be treated for the purposes of CAM. One commenter stated that low NO_x burners on gas-fired turbines and controllers for the adjustment of air to fuel ratio should be included on the list of equipment which is not considered a "control device" under CAM because this equipment neither destroys nor removes air pollutants. Another commenter argued that FGR and water injection for NO_x control likewise should not be included in the definition as control device equipment adding that these procedures are integral to the combustion system design.

Other commenters stated that treating clean burn combustion control utilized in internal combustion engines as outside the CAM control device definition would be consistent with EPA's inclusion of both increased air flow (air injection, AIRS Code 031) and precombustion chambers (staged combustion, AIRS code 025) on the list of technologies not considered control devices. Two commenters listed several basic engine combustion control techniques, such as timing retard, lean combustion modifications, turbo charging, after-cooling and fuel injection enhancements which EPA should exclude from the concept of "control device." They added that the use of low emitting raw materials should be explicitly excluded (such as fuel sulfur limits), as should retrofitting with certain equipment, such as a "lean-burn" kit installed on a "rich-burn" spark-ignited engine.

An association of state and local agencies recommended adding Selective Catalytic Reduction (SCR) and components of low-NO_x burners to the list of control devices.

Response: See response to Comment e, section 1.1.1 (Part III), above, regarding the use of low-NO_x burner technology. The Agency disagrees that some of the technology mentioned including FGR, SCR, and water or steam injection, should not be considered active control technology for the purposes of part 64. Even though the technologies mentioned are directed at modifying the process operation rather than an end-of-pipe pollutant removal, these technologies are active in nature and do require generally continuous operator attention in order to assure proper operation (e.g., monitoring of water or steam flow rates relative to fuel input rates, monitoring of catalytic temperatures to assure reduction activity, monitoring of gas flow rate to assure proper recirculation ratios). With respect to the comments concerning basic engine combustion control techniques, the Agency notes that the final rule specifically excludes combustion design characteristics from the definition of a control device.

Letter(s): American Gas Association (VI-D-154); Engine Manufacturers Association (VI-D-117); Hawaiian Electric Company, Inc. (VI-D-165); NESCAUM (VI-D-192); NorAm Gas Transmission Company (VI-D-142)

Comment c: Comments on the classification of various types of devices included a state commenter's identification of a number of types of equipment (with Aerometric Information Retrieval System codes included) as being listed as control devices in the guidance document (Docket Item VI-I-3) and objection to their classification as such. These examples included control devices for particulate matter, such as gravity collectors (004, 005, 006), centrifugal collectors (007, 008, 009), mist eliminators (014, 015), spray towers (052), filters (058, 059, 063, 064), cyclones (075, 076, 077), wet cyclonic separators (085), and high efficiency particulate air filters (101); sulfur plants (045) which the commenter described as primarily a manufacturing process; sulfuric acid plants (043, 044) which the commenter stated typically satisfy emission limits through proper design. The commenter also stated that any system which utilizes vapor collection equipment to route VOC to a control device that reduces VOC emissions and equipment used to recover VOC for the purpose of recycling to the

process (under Vapor recovery system (047)) should not be considered an active control device and that water curtains (086) and nitrogen blankets (087) are work practice techniques rather than control devices.

Other commenters stated that "no equipment" and numerous processes, including catalytic reduction, chemical oxidation, chemical neutralization, "process change" and process gas recovery, were improperly included as control devices.

Response: See response to Comment c, section 1.1.1 (Part III), above, for general control device definition. The final rule includes a provision for the owner or operator to identify certain types of product collectors and process operations as inherent process equipment and, thus, may not be subject to the monitoring requirements in part 64. The devices mentioned by the commenter may fall into this category depending on application including gravity collectors, centrifugal collectors, mist eliminators, spray towers, filters, cyclones, wet cyclonic separators, and high efficiency particulate air filters, sulfur plants, sulfuric acid plants, organic vapor collectors, as well as, catalytic reduction, chemical oxidation, chemical neutralization, "process change" and process gas recovery. On the other hand, the Agency believes that such devices installed and operated in order to meet an applicable emission limit should be subject to appropriate monitoring to provide a reasonable assurance of compliance.

Letter(s): Chemical Manufacturers Association (VI-D-152); Exxon Chemical Americas (VI-D-128)

Comment d: One commenter asserted that the requirements of 40 CFR 60.18 are sufficient to assure compliance for flares (023).

Response: The Agency agrees that certain types of monitoring specified through rulemaking and other publicly available documents, but not designated as continuous compliance determination methods, may be presumptively acceptable monitoring under part 64. The preamble to the final rule provides that the monitoring for flares as defined in § 60.18 qualifies as presumptively acceptable monitoring under § 64.4(b)(5).

Letter(s): Texas Natural Resource Conservation Commission (VI-D-189)

Comment e: One commenter argued against considering multiclones or centrifugal collectors to be control devices pointing out that these devices are static and there are no performance parameters that apply to cyclones that can be manipulated by the operator once they are installed.

Response: The Agency believes that cyclones and multiclones that are installed and operated to comply with applicable emission limits should be subject to monitoring under part 64. The argument that such devices are static is not persuasive given the need for the operator to maintain sufficient inertial conditions for adequate pollutant removal. On the other hand, the Agency agrees that the monitoring of the operation of cyclones and multiclones is generally a relatively simple matter of assuring that proper gas flow is maintained to ensure adequate pollutant removal velocity and that regular inspection and cleaning or other maintenance is conducted. For purposes of part 64, the Agency believes that monitoring to assure that proper flow rates are maintained (e.g., minimum pressure drop across the device) and recordkeeping of other maintenance practices would be sufficient and appropriate monitoring. The frequency of such monitoring may be reduced based on the level of control the owner or operator has over the operation of the devices.

Letter(s): Niagara Mohawk (VI-D-168)

Comment f: A few commenters requested that the control device guidance document include some POTW-unique control methods, such as certain process/equipment modification used to reduce air emissions, so that it is clear that these methods are not control devices.

Response: The Agency believes that this concern is adequately addressed in the revised definition of control device, which states that "...a control device does not include passive control measures that act to prevent pollutants from forming, such as the use of seals, lids, or roofs to prevent the release of pollutants, use of low-polluting fuel or feed stocks, or the use of combustion or other process design features or characteristics."

Letter(s): California Association of Sanitation Agencies (VI-D-206); County Sanitation Districts of Orange County, California (VI-D-231); Tri-TAC (VI-D-225)

Comment g: Some commenters recommended including the materials found in the guidance document in the rule or an Appendix to the rule. One commenter recommended adding a definition of "control method" to § 64.1 referring to equipment, processes, work practices and other methods of controlling emissions that should not be considered control devices. This commenter preferred incorporating the list of technologies not to be considered control devices currently included in the guidance document in the body of the regulation itself because permitting authorities would not be bound by the guidance materials. The commenters asserted that these approaches would increase the consistency of CAM implementation and reduce burdens on both states and the regulated community.

Response: The EPA has not included an exhaustive list of control devices that may be inherent process equipment in the rule to preserve the flexibility of permitting authorities to deal with individual situations. The Agency believes the specificity of the control device definition and EPA-developed guidance will assure consistent CAM implementation. The Agency also believes that the commenters' suggestion to include a negative list of process operations that would not be considered control devices is addressed in the revised definition of control device - "...a control device does not include passive control measures that act to prevent pollutants from forming, such as the use of seals, lids, or roofs to prevent the release of pollutants, use of low-polluting fuel or feed stocks, or the use of combustion or other process design features or characteristics."

Letter(s): American Gas Association (VI-D-154); NorAm Gas Transmission Company (VI-D-142)

1.1.4: Miscellaneous Requests for Clarification

Comment a: A commenter requested clarification as to whether passive control devices, such as lids, primary and secondary seals for storage tanks, etc., are included in the CAM definition of "control device" and whether EPA considered emission units employing such passive control devices to be subject to subpart B or subpart C of the 1996 CAM Draft.

Response: The passive control devices as described by the commenter are not included in the definition of control device for part 64 purposes, as explained in response to Comment f under section 1.1.3 (Part III), above.

Monitoring for such pollution control measures would be more appropriately addressed by the periodic monitoring requirements of part 70.

Letter(s): Ohio EPA, Division of Air Pollution Control (VI-D-180)

Comment b: A commenter asked whether equipment must meet one or all three of the criteria mentioned in the discussion accompanying the 1996 CAM Draft to be considered a control device and suggested including an "and" or "or" in the criteria to clarify how many criteria must be met.

Response: The Agency has revised and clarified the definition of control device in the rule. The determination of what constitutes a control device is provided in examples and additional discussion in the rule text.

Letter(s): South Dakota Department of Environment and Natural Resources (VI-D-223)

Comment c: One commenter requested clarification on the terms "discharge" and "ambient air," and another stated generally that the definition should be clarified. A commenter pointed out that the definition should refer to discharge to the atmosphere not the ambient air because other EPA rules define the ambient air to be places to which the general public has access.

Response: The definition of control device has been changed to "... equipment, other than inherent process equipment, that is used to destroy or remove air pollutant(s) prior to discharge to the atmosphere." The definition has been expanded with examples and suggestions as to what pollution control measures are not generally control devices for the purposes of part 64.

Letter(s): KBN Engineering and Applied Sciences, Inc. (VI-D-229); PPG Industries, Inc. (VI-D-136); Wisconsin Electric Power Company (VI-D-130)

Comment d: A commenter stated that flue gas recirculation is not an active control for NO_x since it prevents NO_x formation, but that it may be an active control

for VOCs and CO to the extent that it brings about more complete combustion.

Response: See response to Comment b of section 1.1.3 (Part III).

Letter(s): Kennecott Corporation (VI-D-119)

Section 1.2: Capture System Definition

1.2.1: Need for Capture System Monitoring

Comment a: One commenter argued that the definition of capture system should be deleted because the rule should not require monitoring of capture systems. The commenter stated that the definition is too broad and further broadens the scope of the rule as illustrated by an example based on a catalytic cracking unit. Since it would be difficult to define capture system for a regulation that has such wide applicability, the commenter recommended that the Agency focus CAM on monitoring "control devices" and, where appropriate, process variables directly related to emissions, and not on monitoring "capture systems."

Response: The Agency disagrees for many situations for which fugitive emissions capture is required in order to route emissions to the control device. The monitoring requirements for control devices extend to capture systems as well because they are essential to assuring that the overall emission reduction goals associated with the control device are achieved.

Letter(s): Texaco Environment Health & Safety (VI-D-199)

1.2.2: Breadth of Capture System Definition

Comment a: A few commenters stated that the definition of capture system was too broad. One commenter pointed out that many capture systems do not transport pollutants to a control device. Other commenters argued that the definition of capture system was too inclusive in that it failed to take into account unique capture systems and operational practicality. One commenter recommended allowing the permitting authority discretion to recognize unique circumstances such as sewage treatment plant

sedimentation tank covers that need frequent removal for inspection and maintenance. Utility industry commenters specified that boiler flue gas duct work should be expressly excluded from the definition of capture equipment. One of these commenters stated that including duct work in the definition may be appropriate for those processes that have a high probability of emitting fugitives, but it is not appropriate to monitor the effectiveness of boiler flue gas duct work in transporting pollutants to a control device.

Response: The final rule includes a definition of a "capture system" because the rule requires, where applicable, monitoring of a capture system associated with a control device. The Agency notes that duct work, ventilation fans and similar equipment are not considered to be a capture system if the equipment is used to vent emissions from a source to the atmosphere without being processed through a control device. For instance, roof vents that remove air pollutants from inside a building but do not transport the pollutants to a control device to reduce or destroy emissions would not be subject to the rule. Boiler flue gas duct work would not constitute a "capture system" because the duct work is not used to "capture" the pollutants prior to discharge. The boiler is self-contained from the point at which emissions are generated to the point at which emissions are discharged, and as such a boiler does not employ a "capture system" as commonly understood. The Agency notes that the definition of "capture system" used in part 64 is consistent with other regulations that use this definition. (see, e.g., 40 CFR Part 60, subparts Z, AA, AAa, DD, LL and OOO)

Letter(s): Class of '85 Regulatory Response Group (VI-D-161); County Sanitation Districts of Los Angeles County (VI-D-232); Niagara Mohawk (VI-D-168) Rubber Manufacturers Association (VI-D-149)

Section 1.3: Continuous Compliance Determination Method Definition

1.3.1: Recommends Increasing the Scope of the Continuous Compliance Determination Method Definition

Comment a: Two commenters recommended that EPA delete the caveat for assumed control factors because almost any compliance method may be interpreted to include some assumptions. The commenters stated that,

for example, an incinerator temperature may be approved as a compliance method for some mass limits or percent reduction requirements, but could be interpreted to include assumptions about flow rates or other operating parameters. These commenters recommended that the permitting authority be given the discretion to consider any compliance method to be a continuous compliance determination method.

Response: The exemption allowed in the rule for the use of a continuous compliance determination method specifies that the exemption is not available" (if the applicable compliance method includes an assumed control device emission reduction factor that could be affected by the actual operation and maintenance of the control device" (emphasis added). The Agency believes this makes clear that other assumptions used in determining compliance (e.g., an assumed emission factor, F-factor, for a given fuel type) are not included in this definition. The rule discussion also includes more specific example language to help clarify this point.

Letter(s): American Automobile Manufacturers Association (VI-D-157); General Electric Company (VI-D-156)

1.3.2: Requests for Clarification

Comment a: Several commenters stated that EPA should clarify that a continuous compliance determination method is not limited to continuous monitoring and gave examples of particular methods they would like to see specifically included. These commenters asked that the definition make it clear that the following methods are continuous compliance determination methods: certifying sulfur content in coal to meet a percent sulfur in coal standard for a boiler supplier certifications of material content and properties such as fuel sulfur content or VOC content of coatings, and continuous metering of natural gas usage where the unit is subject to a natural gas usage restriction. Two of the commenters argued that it would be a waste of resources for sources to have to propose that the exemption applies for these situations on a case-by-case basis.

Response: The example compliance determination situations described by the commenters can indeed be continuous compliance determination methods; however, the control technology applied in these situations are not subject to part 64 monitoring, but to other part 70 monitoring (periodic

monitoring). As such, there is no need to justify such monitoring for part 64 purposes on a case-by-case basis.

Letter(s): American Automobile Manufacturers Association (VI-D-157); Chemical Manufacturers Association (VI-D-152); General Electric Company (VI-D-156); Los Alamos National Laboratory (VI-D-210); PPG Industries, Inc. (VI-D-136)

Comment b: Another commenter proposed the addition of language to the definition of "continuous compliance determination method" to clarify that the term includes all emission limitations or standards promulgated under section 111 or 112 of the Act for which the standard provides a compliance determination method. The commenter described this change as necessary to reflect the list of example continuous compliance determination methods in the 8/2/96 CAM technical guidance document, most of which are NESHAP and NSPS standards.

Response: The Agency does not believe that all 111 or 112 standards that include compliance determination methods, which is all of the standards, also provide continuous compliance determinations. The definition applies to a specific category of methods that provide data for all averaging times that may be used directly to determine compliance with the emission limitation. Most compliance methods provide data only from periods of the applicable performance testing, not at all times.

Letter(s): Eli Lilly Company (VI-D-124)

1.3.3: Proposed Limitations for Continuous Compliance Determination Method Definition

Comment a: State commenters recommended limiting the definition of continuous compliance determination method. One commenter requested that the definition be limited to reference methods and argued that this change was necessary to prevent attempted exemptions from CAM requirements based on permit terms such as those which establish that parameter monitoring excursions can be used for compliance determination. An association of states argued that continuous compliance determination method should be defined as a "direct measurement or a direct

correlation between emissions and the parameters monitored" which would include monitoring methods such as CEMS and fuel sampling and analysis. The association stated that a more narrow definition was necessary to ensure that the "continuous compliance determination method" exemption is available only to those sources required by permit to use more rigorous monitoring methods than the minimum required under CAM.

Response: The Agency agrees with this intent and believes that the definition in the final rule reflects this position.

Letter(s): Georgia Department of Natural Resources (VI-D-193); NESCAUM (VI-D-192)

Section 1.4: Other Definitions

1.4.1: Favors Defining Cost-effective

Comment a: A few commenters argued that part 64 should include a definition for the term cost-effective that is consistent with EPA's statement in the CAM preamble that the goal of CAM is to provide a cost-effective means of filling gaps in existing regulations where they are not consistent with the statutory requirements of Titles V and VII of the CAAA. This definition should also reflect the Clinton Administration's stated goal in "Reinventing Environmental Regulation" of "minimizing costs, providing flexibility in implementing programs, and tailoring solutions to the problem." These commenters also proposed revisions to §§ 64.6, 64.7, and 64.9 to clarify that cost-effectiveness is a factor to be considered in determining what monitoring is required by CAM.

Response: See response to Comment a of section 6.4 (Part III).

Letter(s): American Gas Association (VI-D-154); Coastal Corporation (VI-D-123); Colorado Association of Commerce and Industry (VI-D-182)

1.4.2: Breadth of Emission Limitation or Standard Definition

Comment a: A number of commenters stated that there is no reason why design, equipment, operational, or operation and maintenance requirements should be subject to CAM since they do not involve an ongoing activity that must be monitored to determine that it is operating correctly. Another commenter added that Title V certification is all that is necessary for assuring compliance in these cases. One commenter also noted that the part 64 definition appears to go beyond the definitions of "emission limitation" and "emission standard" in section 302(k) of the Act which focus on continuous reduction and therefore do not cover these types of operation requirements. Finally, a commenter emphasized the importance of narrowing the definition of "emission limitation or standard" for subpart C applicability because the number of record keeping, reporting, work practice, design, and similar requirements at a source is large relative to the small number of real emission limitations.

Some commenters offered specific revisions to the definition designed to limit applicability. The commenters noted that the definition suggests that all record keeping and reporting requirements, except those associated with monitoring, are subject to CAM although the preamble states otherwise. The commenters argued that there is no need to subject self-documenting requirements to CAM monitoring. One of the commenters also argued that by failing to specify otherwise, the definition makes monitoring requirements subject to CAM although the preamble states otherwise.

In particular, one commenter stated that leak detection and repair (LDAR) programs should be excluded from the definition of "emission limitation or standard" because they are self-contained and self-enforcing. The commenter pointed out that there are thousands of LDAR applicable requirements which would cause a tremendous burden if considered on a case-by-case basis and argued that this illustrates the need for a programmatic approach to CAM.

Another commenter argued that applicability and exemption provisions (such as a requirement that a particular NSPS applies to tanks storing liquids above a particular vapor pressure threshold) and minor NSR, registration and similar requirements should be specifically excluded from the definition. (See also summaries under section 2.3.4 (Part III).)

One commenter recommended that the definition include an appropriate acknowledgment that an emission limitation or standard includes not only the numerical emission limit, but also a corresponding averaging period and test method for determining compliance.

Response: The Agency has slightly modified the definition of emission limitation or standard to address some of these comments. The final rule states explicitly that requirements "to keep records, submit reports, or conduct monitoring" do not constitute emission limitations or standards for purposes of part 64. For the remaining comments, however, EPA disagrees. If a pollutant-specific emissions unit relies on a control device to achieve compliance, the form of the emission limitation or standard is generally immaterial to the need to assure that the control device continues to function properly, reduce emissions and achieve compliance. The Agency notes that most pollutant-specific emissions units with control devices are not subject to the type of standards which the commenters suggested should be deleted (such as LDAR requirements). There are, however, some types of design requirements that require installation of a control device, and in those cases, EPA believes that monitoring the control device is appropriate (see, e.g., 40 CFR 60.112(b)(a)(3) and (b)(2), design standards for vapor recovery and control systems, and corresponding monitoring requirements at 60.113b(c)(1) and (2)).

Letter(s): American Automobile Manufacturers Association (VI-D-157); Chemical Manufacturers Association (VI-D-152); Electronic Industries Association (VI-D-137); Exxon Chemical Americas (VI-D-128); General Electric Company (VI-D-156); KBN Engineering and Applied Sciences, Inc. (VI-D-229); Ohio Chamber of Commerce, et al (VI-D-160); The Fertilizer Institute (VI-D-145); The Society of the Plastics Industry, Inc. (VI-D-148)

1.4.3 Comments on Definition of Deviation, Excursion and Exceedance

Comment a: Several commenters argued that a definition of "deviation" should be added to part 64 that reflects EPA's statements in the preamble that deviations are not necessarily violations.

Two of the commenters stated that interpretation of "deviation" for purposes of CAM and the federally-enforceable portions of the Title V permit should not be left to the State's discretion. Another commenter

suggested that a definition of "deviation" similar to the definition in section 71.6(a)(3)(iii)(C) should be added to § 64.1 to clearly establish that a deviation is not necessarily a violation under CAM. (See additional comments in section 12.3 Part (III).)

One commenter requested that EPA clarify that excursions, exceedances or deviations are not violations of the permit. The commenter explained that it appears that the rule is set up to encourage sources to establish indicator values below the regulatory limit so that corrective action can occur prior to any permit violation. However, the commenter pointed out that the definitions of excursion and exceedance refer to levels "in excess of" standards and to failures to stay within an indicator range which creates confusion on this issue.

Response: The Agency has deleted the definition of deviation from the final rule and references to excursions or exceedances as deviations. The final rule does not refer to "deviations" and thus does not include a definition of "deviation." The 1996 part 64 Draft did contain a revised definition of "deviation" to be included in the part 71 provisions covering the federal operating permits program. This definition would have clarified that a deviation is not always a violation and that types of events that were to be considered deviations included "exceedances" and "excursions" as defined under part 64. The state operating permit programs authorized by part 70 of this chapter allow permitting authorities to define the term "deviation" in the context of their individual programs. The 1996 part 64 Draft did not include a definition of "deviation" to be included in part 70 because the Agency did not want to restrict the permitting authorities' ability to define this term.

Several commenters pointed out that there are permitting authorities which define a "deviation" as a violation of the underlying emission limitation or standard. The provisions in the 1996 part 64 Draft which stated that exceedances and excursions are to be considered deviations without necessarily being violations arguably conflict with those definitions of "deviation." In response to these concerns, the Agency has eliminated all references to "deviations" from part 64. The Agency has also made clear in the preamble to the rule and in the reporting status of excursions from CAM indicator ranges that excursions are not necessarily indications of excess emissions or violations of applicable emission limits but are reported as possible exceptions to compliance.

Letter(s): American Furniture Manufacturers Association (VI-D-203); American Gas Association (VI-D-154); Cinergy Corp. (VI-D-141); Utility Air Regulatory Group (VI-D-140)

Comment b: Many commenters also argued for changes to the proposed definitions of "exceedance" and "excursion." Several commenters stated that to be consistent with the definition of "continuous compliance determination" and to assure that exceedances/excursions are reported only when appropriate, these definitions should expressly refer to the appropriate averaging period established for a given emission limitation or standard. These commenters proposed additional definition language to address this concern.

One commenter requested that exceedance only refer to instances in which a numerical emissions limit is actually exceeded, as indicated by a monitoring method providing numerical emissions data. The commenter argued that other information which suggests that a numerical emission limit has been exceeded (such as failure to follow a work practice standard) would be better included in the definition of "excursion." A corresponding change in the definition of "emission limitation or standard" was also recommended. Two commenters objected to language in the discussion accompanying the 1996 part 64 Draft which equated the term "exceedance" with the concept of "excess emissions" used in the NSPS. The commenters described the term "excess emissions" as a misnomer which should not be used out of context.

Response: These two terms are closely related. Section 64.1 defines an "exceedance" as a condition detected by monitoring which provides data in terms of an emission limitation or standard and which indicates that emissions or opacity are greater than that limitation or standard, consistent with the applicable averaging period. An "excursion" is defined as a departure from an indicator range established as part of part 64 monitoring, also as consistent with the applicable averaging period as determined for purposes of part 64. The Agency continues to believe that the term "exceedance" is comparable to the term "excess emissions" commonly used in the NSPS to define what types of CEMS or COMS data need be reported.

Letter(s): Baltimore Gas & Electric Company (VI-D-177); Chemical Manufacturers Association (VI-D-152); Chemical Manufacturers Association (VI-D-258); Cinergy Corp. (VI-D-141); Houston Lighting & Power Company (VI-D-228); KBN Engineering and Applied Sciences, Inc. (VI-D-229); Occidental Chemical Corporation (VI-D-261); Southwestern Public Service Company (VI-D-224); Utility Air Regulatory Group (VI-D-140); Virginia Power (VI-D-226); Wisconsin Electric Power Company (VI-D-130)

Comment c: A commenter also suggested that EPA clarify the definitions to reflect statements at the September 10, 1996 meeting indicating that EPA did not intend periods of startup and shutdown to be counted as exceedances or excursions, but would simply exclude these periods from the calculation of CAM "downtime." The commenter noted that this would mirror EPA policy in all of NSPS, and recognize the reality of operating any industrial source of emissions.

Response: The Agency has noted in the past that certain exceedances or excursions may be excused because of startup or shutdown conditions, which is consistent with the NSPS. However, it is incorrect that periods of startup, shutdown or malfunction excuse the owner or operator from recording data and reporting the data as exceedances or excursions. See further discussion related to this topic in the Final Rule Preamble, section II.G.1.

Letter(s): Houston Lighting & Power Company (VI-D-228)

Comment d: Commenters particularly objected to "excursions" being defined as "deviations." Several commenters stated that there is no basis for defining excursions as deviations since there is no independent obligation to stay within the range unless the indicator range is itself an enforceable permit limit, and if the required further action is taken, there is no basis for suggesting that the permit may not have been complied with. The commenters suggested requiring reporting of excursions (which would eliminate the negative connotations associated with deviations) noting that the current definition of excursions defeats the purpose of CAM by discouraging sources from establishing conservative indicator ranges that might detect problems sooner. One of the commenters also added that the approach taken in the 1996 CAM Draft is inconsistent with the known

and accepted imprecision between the monitored indicators and actual emissions.

Specific changes recommended for the definition included deleting the sentence stating that an excursion shall be considered a deviation in annual compliance certifications, and including a reference to the sections under which an excursion may be established as an independent permit condition and language stating that only under those circumstances would an excursion be a deviation. Another commenter proposed the development of a non-exclusive list of excursions which should not be considered deviations including exceedances due to start-up or shutdown periods that are excused by the rule.

One commenter stated that excursions should not trigger EPA action. This commenter believed that notice should be required if failure to respond to an excursion triggers an exceedance.

Response: See the response to Comment a in this section. Further, the Agency believes that the preamble to the rule adequately emphasizes that a failure to stay within the indicator range does not automatically indicate a failure to satisfy applicable requirements. The failure to stay within an indicator range does indicate the need for the owner or operator to follow up and determine whether corrective action is necessary to return operations within design parameters, and to act upon that determination as appropriate.

Letter(s): Air Control Techniques, P.C. (VI-D-202); American Gas Association (VI-D-154); Baltimore Gas & Electric Company (VI-D-177); Cinergy Corp. (VI-D-141); Eli Lilly Company (VI-D-124); KBN Engineering and Applied Sciences, Inc. (VI-D-229); Southern Company Services (VI-D-171); Utility Air Regulatory Group (VI-D-140); Wisconsin Electric Power Company (VI-D-130)

Comment e: One commenter recommended that the definition of excursion explicitly acknowledge that an excursion does not by itself constitute noncompliance with an applicable emission limitation or standard. The

commenter argued that such an addition is consistent with EPA's statements about the meaning of an excursion in the draft CAM preamble.

Response: The Agency believes that the definition of excursion and the rule discussion of the appropriate response to excursions adequately establish the status of excursions related to compliance obligations. In addition, as noted in Section I.E. of the Final Rule Preamble, the Agency intends to draw no firm inferences as to whether excursions from CAM parameter levels warrant enforcement of underlying emission limits without further investigation into the particular circumstances at the source.

Letter(s): The Fertilizer Institute (VI-D-145)

Comment f: A state commenter expressed concern that the proposed definitions of "excursion" and "exceedance" could conflict with state definitions and that future changes in state definitions of those terms might be required which would have a negative effect on successful monitoring and enforcement programs already in effect.

Response: See response to Comment a of this section.

Letter(s): Ohio EPA, Division of Air Pollution Control (VI-D-180)

1.4.4: Comments on Monitoring Definition

Comment a: Several commenters felt that the definition of "monitoring" should be more flexible. These commenters argued that the current definition of monitoring, combined with the Subpart C requirement that all units do some kind of monitoring unless they can make a special showing under § 64.9(c)(2) that no monitoring is required to provide a reasonable assurance of compliance, essentially recreates the inflexible requirements for periodic monitoring that currently apply under Part 70. The commenters stated that this provision does not appear to provide permitting authorities discretion not to require additional monitoring (stack testing) based on criteria like the size of the source or frequency of operation. Based on the commenters' understanding that one of the purposes of integrating CAM and periodic monitoring was to allow

permitting authorities the discretion not to impose periodic stack testing on small sources that do not currently perform ongoing monitoring and that do not use active control devices, they argued that EPA should either adopt a more flexible definition of monitoring or revise Subpart C to include consideration of criteria such as source size, actual emissions, and cost of available monitoring. However, one commenter offered support for the definition of "monitoring" as being appropriately flexible.

Another commenter stated that the words "on a routine basis" should be deleted from the definition because this phrase disallows non-routine or one-time data collection from being considered "monitoring."

Other commenters pointed out that the definition of "monitoring" in the 1996 CAM Draft was an improvement over the previously proposed definition. One commenter based this evaluation on the fact that the definition clarifies that required conduct of performance tests is not considered monitoring. Another commenter suggested that changing the words "provided that" to "except that" would improve the clarity of this provision.

Response: The Agency believes that the removal of subpart C from the final rule alleviates the concerns raised in these comments. Monitoring for units other than those addressed in part 64 will be addressed through implementation of periodic monitoring as defined for part 70.

Letter(s): Chemical Manufacturers Association (VI-D-152); Cinergy Corp. (VI-D-141); Colorado Association of Commerce and Industry (VI-D-182); Houston Lighting & Power Company (VI-D-228); KBN Engineering and Applied Sciences, Inc. (VI-D-229); Pennsylvania Chamber of Business and Industry (VI-D-114); Utility Air Regulatory Group (VI-D-140); Wisconsin Electric Power Company (VI-D-130)

1.4.5: Comments on Other Definitions

Comment a: A commenter requested that EPA clarify the meaning of "pollutant-specific emissions unit" (PSEU). The commenter suggested that EPA may mean that a specific type of unit has a requirement for a specific pollutant. For instance, the commenter asked that EPA clarify whether a chromium hard-anodizing unit is a PSEU for chromium.

Response: As noted above, the Agency has added clarification to the rule about defining PSEU. In answer to the specific question, the chrome anodizing tank would be the pollutant-specific emission unit for total chromium and would be subject to the part 63, subpart N, post-1990 rulemaking. Because the PSEU is subject to subpart N, of part 63, that PSEU is not subject to part 64 monitoring requirements, unless it is also subject to other, non-exempt emission limitations or standards that apply to chromium.

Letter(s): Department of Energy (VI-D-196)

Comment b: One commenter proposed a definition of "potential to emit" that includes any physical or operational limitation on the capacity of the source to emit a pollutant including control devices and operating restrictions.

Response: The definition of potential to emit for part 64 purposes will be the same as that defined for part 70 purposes including the applicability of any operational restrictions or limitations.

Letter(s): Texaco Environment Health & Safety (VI-D-199)

Comment c: A commenter proposed revisions to the definition of "predictive emission monitoring system (PEMS)" to be considered along with the definition of "pollution prevention" proposed by the commenter (see related comments in section 1.1 (Part III)-Control Device Definition). The proposed definition of PEMS would refer to "data reduction system to measure the performance of pollution prevention or control devices in terms of the applicable emission limitation or standard."

Response: The Agency uses the term predictive emissions monitoring system or PEMS specifically to refer to the use of parametric data to predict emissions in units of the applicable standard. The purpose of this distinction is to recognize the use of such monitoring as continuous compliance determination methods. The fact that such monitoring can also provide the operator with valuable process operation information is certainly important but is outside the scope of the definition for part 64 purposes.

Letter(s): American Gas Association (VI-D-154)

Comment d: One commenter stated that EPA should define the term "range" as used in part 64 or substitute other terms where "range" is used. The commenter explained that the term "range" as used in § 64.6(a)(3)(i) through (iv) and elsewhere in the rule describes both single points and single parameters. This commenter suggested the use of the phrase "indicator performance status" in some cases and the use of the term "scope" instead of "range" in § 64.9(a)(3) to avoid confusion with the use of the term "range" under subpart B of the 1996 part 64 Draft.

Response: The Agency agrees that the term "range" alone is insufficient and has added the term "designated condition" to recognize single point alternatives to operating ranges.

Letter(s): Enron Operations Corp. (VI-D-235)

Comment f: A commenter recommended that EPA clarify the use of the term "major source" for applicability purposes. The commenter stated that it should be clear that major source status is to be determined consistent with the definition as applicable to the location of the source, taking into account attainment status.

Response: The Agency has revised part 64 in a number of ways to make a separate definition of the term "major source" unnecessary. Part 64 simply states that "major source" shall have the same meaning as provided in part 70. The Part 70 definition does take into account the location of the source in terms of attainment status.

Letter(s): Tennessee Valley Authority (VI-D-162)

Comment g: One commenter requested clarification of the term "emissions unit." As an example, the commenter expressed confusion over whether a distillation unit with two vents constitutes one emissions unit or two.

Response: The term "pollutant-specific emissions unit" applies to the process for which the emission limitation applies. In the example provided by the

commenter, the distillation unit with an emission limitation for pollutant X would be one PSEU. The fact that there are multiple vents to the atmosphere is relevant only if each vent represents a separate control device.

Letter(s): Dow Chemical Company (VI-D-120)

Section 2: Applicability

Section 2.1: Applicability of 1996 CAM Draft Subpart B

2.1.1: General Comments/Scope of Applicability

Comment a: A few commenters offered general support for the applicability provisions. One state agency and an association of state and local authorities stated that the universe of sources subject to CAM is reasonable and represents the size and type of emissions units that should regularly conduct monitoring. Other commenters specifically supported the distinction between control device units and other units. Another commenter favored the more streamlined two subparts of the 1996 part 64 Draft over the three tiered scheme in the 1995 part 64 Draft.

Response: No additional response necessary.

Letter(s): American Electric Power (VI-D-129); Colorado Association of Commerce and Industry (VI-D-182); Department of Energy (VI-D-196); Missouri Division of Natural Resources (VI-D-260); STAPPA/ALAPCO (VI-D-179)

Comment b: On the other hand, many commenters argued that under the 1996 part 64 Draft, subpart B would apply to too many pollutant-specific emission units. A chemical industry commenter stated that the 1996 part 64 Draft would subject virtually every emission source in its industry to subpart B. The commenter added that this problem is compounded by EPA's proposed guidance on defining "control device" and by the CAM provision allowing subpart B standards to be applied to subpart C units. A pharmaceutical industry commenter stated that at just one plant it has 1,000 pollutant-specific emissions units for which it would have to implement CAM, and that the costs and resources necessary to develop and implement a large number of CAM plans, including the emissions testing to justify the monitoring approaches, would far outweigh any environmental benefit of monitoring emissions from these units.

The pharmaceutical commenter also claimed that the monitoring requirements of the 1996 part 64 Draft apply to all units at a major source which are subject to an emission limitation or standard whereas the EM proposal would have applied only to those units at a major source with

emissions of a regulated pollutant for which the source is major at a level equal to or greater than 30 percent of the major source threshold for that pollutant. The commenter asserted that applicability of the 1996 part 64 Draft was therefore broader than applicability under the EM proposal.

A few commenters discussed the number of units subject to CAM specifically. Based on EPA estimates that there are 25,000 title V sources, 9,000 of which are "major" sources, some commenters estimated that several hundred thousand units would be covered by CAM. Of these several hundred thousand units, the commenter stated that many will be subject to subpart B and estimated 250 thousand units each for subpart B and subpart C. This commenter also asserted that EPA should have released an RIA which would have enabled commenters to assess how EPA came to its conclusions about coverage and comment on the adequacy of EPA's analysis. Two commenters claimed that even considering subpart B units which will require CAM plans alone it appears that CAM will cover more units than under the proposed EM approach.

One commenter concluded that EPA should amend the rule to greatly reduce the number of units covered by both subpart B and C of CAM. Another commenter argued that the need to limit subpart B applicability is especially a concern because of the burdens involved with preparing and negotiating CAM plans as opposed to the less rigorous requirements of subpart C. The commenter stated that this concern is further compounded because of the compliance testing presumption for establishing indicator ranges under subpart B. A commenter asserted that by including fewer categories of applicability in the 1996 part 64 Draft, EPA has made more emissions units subject to the most stringent CAM requirements than was the case in the 1995 draft rule.

Response: The Agency disagrees with the commenters' characterization of the number of units subject to part 64 as greater than the number of units that would have been subject to the 1993 proposed enhanced monitoring rule. The final part 64 retains the basic concept of an applicability threshold as contained in the 1993 EM proposal, but also narrows the focus so that part 64 applies only to those pollutant-specific emissions units that use a control device to achieve compliance with an applicable emission limitation or standard. In addition, units using control devices must have potential pre-control device emissions equal to or greater than 100 percent of the applicable major source definition to be subject to part 64.

Since part 64 applies its size threshold only to the proportionally small number of emissions units that use control devices, the number of units required to meet part 64 monitoring requirements is lower than would have been subject to the 1993 EM proposal. The RIA estimates that part 64 will affect less than 27,000 units as compared to the over 35,000 units affected under the 1993 EM proposal. The Agency believes that these are the emissions units on which monitoring requirements should be focused. The Agency also notes that, in response to concerns related to the definition of control device and concerns that the definition would result in over broad applicability, EPA has revised that definition to clarify the intent of that definition. (See section 1.1 (Part III), above for further detail.)

Letter(s): Chemical Manufacturers Association (VI-D-152); CITGO Petroleum Corporation (VI-D-172); Class of '85 Regulatory Response Group (VI-D-161); Coalition for Clean Air Implementation (VI-D-164); Eastman Chemical Company (VI-D-173); Eli Lilly Company (VI-D-124); Marathon Oil Company (VI-D-185); Pennzoil Company (VI-D-133)

Comment c: One commenter proposed eliminating a grey area of units that might otherwise be subject to subpart B by adding a definition for "control methods" to § 64.1 which would incorporate the guidance document list of technologies not to be considered control devices, and by revising § 64.2 to state that subpart B requirements do not apply to units using such control methods.

Response: The Agency believes that the revised control device definition satisfactorily addresses the control device definition clarity. See responses to comments in section 1.1.1 (Part III) for more information.

Letter(s): NorAm Gas Transmission Company (VI-D-142)

Comment d: A commenter recommended that subpart B applicability be limited to only those units with active control devices that have pre-control device emissions greater than the major source threshold and actual post-control emissions greater than 40 percent of the major source threshold. This commenter suggested applying subpart C to units with active control devices that have precontrol device "actual" emissions greater than 40

percent of the major source threshold and exempting those with pre-control "actual" emissions are less than that amount. The commenter also provided detailed examples from one of its facilities to demonstrate the reasonableness of this approach.

Another recommended approach involved applying the rule to units with actual post-control emissions greater than 50 percent of the major source threshold. A commenter claimed that such an approach would be consistent with the current PTE guidance for title V applicability. A commenter who preferred that approach also mentioned that 85 percent post-control PTE could be used as a threshold if the Agency would rather not use actual emissions. This suggestion was described as being consistent with the revised part 70 modification procedures for determining what constitutes an environmentally significant change. Some commenters noted that other reasonable approaches could be considered, such as those outlined in the SBA comment letter.

Response: The Agency disagrees with the concept of using actual emissions as the overall basis for part 64 applicability. First, actual emissions can vary with changes in production. More importantly, for units with control devices, calculations of actual emissions necessarily rely on assumptions about on-going performance that part 64 is intended to verify. The Agency has incorporated a number of streamlining features to the final rule to help relieve the documentation burden. The Agency has also delayed the implementation of part 64 monitoring for smaller emissions units until permit renewal. With these measures, the Agency believes that imposing monitoring requirements for emissions units with control devices above the applicability threshold as defined in the rule is reasonable.

Letter(s): Cooperative Power Association (VI-D-208); Eastman Chemical Company (VI-D-173); Exxon Chemical Americas (VI-D-128); Mobil Corporation (VI-D-115); Total Petroleum, Inc. (VI-D-190)

Comment e: Two commenters argued that EPA has used CAM to conduct "gap filling" in ways that are unnecessary or inappropriate. These commenters stated that CAM should fill gaps where monitoring has been omitted in prior rulemakings, but should not be used to correct errors where existing monitoring is not regarded as inadequate. According to the commenters,

promulgating the 1996 part 64 Draft would improperly rectify errors and problems with existing rules such as pre-1990 NSPSs, NESHAPs and existing NSR and PSD permits. These commenters recommended that EPA should use CAM to "gap fill" rules or permits without any monitoring or recordkeeping requirements instead of attempting to "fix" current monitoring and recordkeeping requirements. The commenters argued that their approach would fulfill the mandates of Section 114 of the Act without unnecessarily burdening sources and states with a complicated monitoring rulemaking.

Response: Title VII of the 1990 Amendments added a new section 114(a)(3) that requires EPA to promulgate rules on enhanced monitoring and compliance certifications. This paragraph provides that the Administrator shall 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 Agency agrees that existing monitoring, in some cases, will suffice to meet the requirements that define enhanced monitoring. The final rule recognizes this and exempts some source owners from additional requirements if continuous compliance determination methods are applied. The final rule also includes reduced documentation requirements for monitoring approaches that provide a direct measure of emissions. On the other hand, the Agency believes that not all existing monitoring, even in federally developed regulations (e.g., NSPS), provides information sufficient to allow the owner to certify compliance status of emission units' control devices without the enhancements that part 64 provides. It is the Agency's intention that existing monitoring satisfy the same requirements as new monitoring under part 64.

Letter(s): Pharmaceutical Research and Manufacturers of America (VI-D-217);
Phillips Petroleum Company (VI-D-131)

2.1.2: Use of Potential Pre-control Device Emissions Threshold

Comment a: An environmental organization supported the pre-control emissions threshold since such a provision reflects the fact that emissions will be at

pre-control levels if the control device fails. However, the organization did not believe that units with pre-control emissions below the major source threshold should be excluded from coverage of part 64 either.

Response: No additional response necessary regarding the importance of considering precontrol emissions. As to the reasonableness of the emissions threshold for units, EPA believes Congress left the Agency with considerable discretion in designing how to implement enhanced monitoring requirements at major sources. Part 64 is designed to focus on those emission units which have the potential absent controls to emit significant amounts of pollution. The Agency believes the emissions threshold it has chosen for emissions units is reasonable because using that threshold over 97 percent of emissions from units with controls will fall under part 64.

Letter(s): Natural Resources Defense Council (VI-D-151)

Comment b: Many industry commenters expressed opposition to the applicability threshold. Objections to using potential pre-control device emissions rather than potential to emit were based on factors such as the resulting increase in emissions units subject to subpart B monitoring requirements without a significant increase in the total amount of emissions monitored. As an example, one commenter stated that this approach will cover extremely small sources of PM-10. The commenter also requested clarification of how the rule would apply to regulations that may be developed to address pending PM-2.5 issues. Another example given by two commenters was that a unit with a pre-control device potential to emit of 100 tons and an active control device that is 99.9 percent efficient would be subject to subpart B despite having actual emissions of less than one ton. The commenters noted that this result is contrary to EPA's goal of developing "cleaner, cheaper, and smarter regulations." A chemical industry commenter stated that all sources in this industry could be subject to subpart B under the "pre-control device emissions" threshold. According to the commenter this could occur because every emission source in its industry passes product or emissions through a unit operation covered under the broad definition of "control device" and because large emissions could occur under some contingency (e.g. cooling water failure), although in most cases there is little chance of such an occurrence during normal (non-malfunction) operations.

Other commenters argued that the "pre-control device emissions" threshold would result in well-controlled emissions units with low actual emissions being subject to subpart B of the 1996 part 64 Draft which is in contrast to both the title V regional source definition which allows control effectiveness to be included, and both past and current definitions of "potential to emit." Several of the commenters noted that in response to recent court decisions, EPA has stated that it is considering rulemaking which would allow "effective" state and locally enforceable limitations (including control device requirements and limits on hours of operation and production capacity) to be considered in addition to federally enforceable limitations on "potential to emit." The commenters noted that under both EPA guidance and these recent court decisions, sources have calculated potential emissions after those control devices that are subject to enforceable limitations and by taking into account limits on hours of operation and production capacity. They argued that basing CAM applicability on an interpretation of "potential to emit" that is consistent with other programs under the Act is sensible and may be required legally. These commenters recommended revising § 64.2(a)(iii) to be based on "potential to emit" instead of "pre-control device emissions." A commenter recommended that "potential pre-control device emissions" should have the same meaning as "potential to emit" as defined in § 64.1.

A few commenters cited Alabama Power Co. v. Costle as holding that Congress would have had to exclusively intend that uncontrolled emissions be used in order to justify a change from EPA and the regulated community's long-standing practice of calculating controlled potential to emit. The commenters highlighted a statement made in this case that high school heating plants might become "major sources" under the uncontrolled emissions test as support for the argument that applicability based on uncontrolled potential to emit would be too inclusive.

Two commenters argued that because the CAM rule and plans are designed to identify short-term changes in control efficiency, it is inconsistent to justify applicability decisions based on hypothetical long-term (annual) differences between units. The commenters also stated that no control device could be assumed to fail for an entire year, but this would be the only way that there would be a substantial real world difference between controlled and uncontrolled emissions.

One commenter noted that the rule allows units to subtract emissions reductions achieved through enforceable operational constraints, such as permit limits regarding hours of operation, feed rates, type of fuel burned, etc. when calculating potential pre-control device emissions. The commenter asserted that it is inconsistent to allow units with this type of restriction to avoid subpart B applicability while subjecting units with control devices to subpart B and that any unit that limits potential emissions and takes a permit limit to that effect should be allowed to consider that limit in determining CAM applicability.

One commenter indicated an understanding of EPA's concern that use of potential emissions may focus better on the potential air quality impact of diminishment or loss of control, but asserted that the affected pollutant-specific emissions units tend to be larger and better-controlled units and that these units are less likely to experience loss of control. Another commenter added that certification of control devices provides assurance that they are effective and only those found to be ineffective should be subject to CAM.

Several commenters argued that EPA should not write a rule to address the worst-case scenario of complete control device failure or intentional disablement. The commenters stated that such outliers can be addressed specifically by permitting authorities and that the rule should be written to address the normal sources. Based on that, the commenters believed that use of pre-control device emissions is unreasonable. Two commenters stated that periodic monitoring is sufficient to prevent such egregious behavior.

A commenter stated that the monitoring under subpart C would be adequate to reveal cases where owners or operators fail to operate their control equipment leading to large emission problems. The commenter stated that this type of problem seems to be the Agency's main concern and subpart C should therefore be the primary focus of the rule. According to this commenter, the result of the 1996 part 64 Draft is to burden all sources with detailed monitoring to catch the few that follow the "control device disablement scenario."

One commenter noted that other regulations, such as CERCLA/SARA require immediate reporting when certain quantities of hazardous air pollutants are released. The commenter stated that agencies can

respond appropriately since total failure of a control device would be likely to trigger such requirements. This commenter also pointed out that if EPA based subpart B applicability on potential to emit rather than the proposed definition of pre-control device emissions, units or emissions points not subject to subpart B will still be subject to subpart C requirements and other established monitoring requirements. A few commenters suggested that the risk of catastrophic failures of control devices could be addressed by simpler approaches, with two of the commenters recommending allowing sources to document proper O & M of control devices.

A commenter, who noted its recognition of the concern with high efficiency control devices that decreased efficiency could result in emissions above the major source threshold, argued that the authority of permitting authorities to add units to subpart B under § 64.4(a)(2) would provide ample authority to focus resources on those units that are prone to this type of problem. The commenter stated that by basing applicability based on pre-control device emissions at all units, the rule includes too many minor units for which EPA's stated concern is not likely to exist and asserted that the rule should only apply to units above the major source threshold based on the normal definition of potential to emit.

A commenter argued that applying part 64 to sources on this basis will duplicate most NSPS programs which already have adequate monitoring and related provisions to assure use of the control equipment. The commenter recommended basing more stringent monitoring on standard PTE to focus part 64 on units that may not have significant monitoring under existing programs.

A state permitting authority described the proposed applicability threshold as arbitrary and argued that EPA should allow states to use a specifically targeted approach which better assures the protection of public health and welfare. The commenter recommended that subpart B applicability be based on factors other than emissions estimates such as: the type of pollutant, location of the source, number of sources, quantity of emissions, toxicity of emissions, variability of the process, margin of compliance, and the reliability of the control device. In connection with this comment, the commenter reiterated its request to adopt a state programmatic approach to CAM.

Other suggested approaches included the use of actual pre-control emissions greater than 50 percent of the major source threshold to determine applicability. A commenter argued that this would allow sources to take into account realistic considerations about hours of operation and throughput levels, and would restrict applicability to significant emissions units. Another commenter recommended using actual emissions and the major source threshold to determine applicability. The commenter stated that if potential to emit is to be used, then the standard definition should be used, not the SBA concept of assuming that controls operate at 50 percent of design efficiency.

Several commenters joined in a proposal that would give partial credit for emission control measure effectiveness when applicability determinations are made. The commenters recommended that if potential pre-control device emissions are to be used, EPA should establish a 50 percent control efficiency assumption based on normal operating efficiency and included a similar proposal stating that subpart B should address units which would become major sources if the device operated at one half its lowest normal operating efficiency with a default value of 40 percent if the preceding figure cannot be reasonably established. The commenters argued that this would cover only sources that may reasonably become "true" major sources. Other commenters expressed general support for such a proposal as directing more resources toward those facilities with the greatest emissions rather than focusing on relatively safe, smaller sources. Basing applicability on a hybrid of potential pre-control emissions and actual emissions was suggested as another alternative.

One commenter urged EPA to allow units the option of determining subpart B applicability based on actual emissions. The commenter offered support for an option presented in the 1995 draft that allowed units whose actual emissions over a rolling 12 month period were less than 50 percent of the major source threshold to avoid CAM applicability and noted that a similar test was allowed in the January 25, 1995 Potential to Emit Transition Policy which was extended in an August 27, 1996 memorandum from John Seitz. The commenter argued that such an option would reduce the unnecessary burden associated with applying part 64 units that would not ever realistically meet the applicable major source threshold.

Response: Determining whether an emissions unit actually emits at the major source threshold, or fraction thereof, is not a purpose of part 64, since part 64 only applies to certain units at sources that have already been determined to be "major." Rather, determining the compliance status with applicable emission limitations or standards is the primary goal of monitoring as defined by part 64. The applicability threshold in part 64 is intended only as a tool for identifying significant pollutant-specific emissions units that have control devices necessary to meet these applicable emission limitations or standards. The potential for a control device to fail for an entire year, as the commenters mentioned, is not relevant as the Agency expects control devices to be operated and maintained so as to provide ongoing compliance with emission limitations or standards. Part 64 is applicable for units with current applicable emission limitations or standards developed prior to the CAAA of 1990.

For these reasons, the CAM approach is necessarily concerned with significant, controlled units with applicable emission limitations or standards even if the potential to emit of such units, considering the effectiveness of the control device, is low. Monitoring that satisfies part 64 will be designed to detect under-performance of control devices that periodic evaluations such as stack tests may be unable to document. For example, a unit may have the potential to emit of 20 tons per year, considering the effectiveness of a control device which is required to operate with a 99 percent control efficiency. If the effectiveness of the control device were not considered, the maximum capacity to emit for that unit would be 2,000 tons per year. If the long-term actual control performance of that control device decreases to 95 percent, the actual emissions would increase by a factor of five, resulting in emissions of 100 tons per year. Even over the short term, such a decrease in control efficiency could violate emission limits and cause air quality standards to be exceeded. Thus, the concern that this type of control device degradation could lead to a noncompliance situation is critical. Part 64 is aimed first at addressing both short-term and long-term, significant loss of control efficiency that can occur without complete failure of a control device. The second type of problem is short-term complete loss of control. As indicated in some of the comments, for many types of control devices this type of problem could be detected with monitoring less detailed than part 64. However, the goal of air pollution control is to prevent these types of problems before they occur, if possible, at a reasonable cost. The EPA believes that part 64 in many instances can be

designed to provide early indications of control equipment problems that could be addressed prior to such catastrophic failures. For these reasons, EPA believes that the use of pre-control device potential to emit is a rational basis on which to evaluate whether specific units should be subject to part 64.

Commenters references to Alabama Power and other cases interpreting the statutory phrase “potential to emit” in CAA section 169(1) and elsewhere are not relevant to this rule. EPA is not interpreting the phrase “potential to emit” in promulgating this rule nor is EPA attempting to define a major source in any way inconsistent with prior Agency actions. As noted, part 64 only applies to “major sources” as that term is defined by part 70. Part 70, in turn, relies on a definition of potential to emit which includes operational limitations and reductions due to control equipment. EPA examines maximum capacity to emit without considering the effectiveness of control devices only for the purpose of determining which units at major sources would benefit most from monitoring of their control devices. Further, the monitoring requirements in the rule apply only to units with control devices as defined in the rule. Commenters’ references to units without control devices (e.g., high school heating plants) being subject to part 64 appear unfounded.

Letter(s): Air Products and Chemicals, Inc. (VI-D-186); American Furniture Manufacturers Association (VI-D-203); American Petroleum Institute (VI-D-146); ASARCO Incorporated (VI-D-187); Can Manufacturers Institute (VI-D-181); Chemical Manufacturers Association (VI-D-152); Chevron Companies (VI-D-132); Cinergy Corp. (VI-D-141); Class of '85 Regulatory Response Group (VI-D-161); Coalition for Clean Air Implementation (VI-D-164); Colorado Association of Commerce and Industry (VI-D-182); Cooperative Power Association (VI-D-208); Dow Chemical Company (VI-D-120); Eastman Chemical Company (VI-D-173); Eli Lilly Company (VI-D-124); General Electric Company (VI-D-156); Kennecott Corporation (VI-D-119); LaClede Gas Company (VI-D-198); Mobil Corporation (VI-D-115); Ohio Chamber of Commerce, et al (VI-D-160); Pennsylvania Chamber of Commerce and Industry (VI-D-114); Pennzoil Company (VI-D-133); Pharmaceutical Research and Manufacturers of America (VI-D-217); R.R. Donnelley & Sons Company (VI-D-221); Rubber Manufacturers Association (VI-D-149); Specialty Steel Industry of North America (VI-D-143); State of Illinois (VI-D-183); Steel Manufacturers Association (SMA) (VI-D-144); Tennessee Valley Authority

(VI-D-162); Texaco Environment Health & Safety (VI-D-199); Texas Chemical Council (VI-D-236); Texas Natural Resource Conservation Commission (VI-D-189); Texas Title V Planning Committee (VI-D-188); The Society of the Plastics Industry, Inc. (VI-D-148); Total Petroleum, Inc. (VI-D-190); US Small Business Administration (VI-D-239)

Comment c: A few commenters stated that the "pre-control device emissions" threshold creates a system where sources have no incentive to maximize control device efficiency. One of the commenters proposed the addition of an exemption for units with low actual emissions to provide an incentive for maximizing control device efficiency. Two other commenters noted that this same pre-control device emissions concept was criticized when raised as a possible idea in the original EM proposal. These commenters also explained that, if one considers normal efficiency levels, the examples provided in the draft CAM rule document how the draft approach would reduce the incentive to employ high efficiency controls. Additional commenters stated that based on the original EM RIA, subpart B pre-control device PTE applicability would not be the most cost-effective approach to meeting the goals of CAM. The commenters added that EPA's failure to release a CAM RIA prevents commenters from undertaking a more conclusive analysis of the proposal's cost-effectiveness.

One commenter argued that subpart B applicability provides a disincentive to install air pollution control devices because subpart B requirements are burdensome and currently uncontrolled sources will therefore want to avoid installing control devices. The commenter questioned EPA requiring more stringent monitoring for sources with control devices because uncontrolled sources are likely to emit more than similar controlled sources. Another commenter pointed out that sources may not have many opportunities to make process changes that lower pre-control emissions but they may have options for reducing post-control device emissions by replacing or improving control devices. The commenter recommended providing the opportunity to avoid subpart B applicability as an incentive for improving controls which would achieve emission reductions.

Response: The Agency intends that part 64 have a limited purpose; that is, part 64 is intended to provide a reasonable means of supplementing existing

regulatory provisions that are not consistent with the statutory requirements of title VII of the 1990 Amendments to the Act. The EPA believes that the CAM approach is a reasonable approach commensurate with this role. Part 64 is not intended as an incentive or a disincentive to install new emission control measures. The rule does not define new emission limitations or standards or any other new requirements beyond monitoring intended to measure compliance with already existing requirements. In the final format, the CAM rule provides flexibility for the owner or operator to develop monitoring that is both cost-effective and can help improve knowledge of control device operations.

Letter(s): Chemical Manufacturers Association (VI-D-152); Colorado Association of Commerce and Industry (VI-D-182); Institute of Clean Air Companies (VI-D-139); Rubber Manufacturers Association (VI-D-149); Specialty Steel Industry of North America (VI-D-143); Steel Manufacturers Association (SMA) (VI-D-144)

Comment d: A state commenter asserted that much effort will be spent trying to quantify pre-control device emissions, a calculation that is of no use except to determine CAM applicability. Another commenter argued that it will take years just to sort out the technical issues raised by this new definition. The commenter gave examples of the anticipated difficulties such as determining what part of the emissions should count as controlled by the inherent process versus the control device and quantifying uncontrolled emissions when far fewer emission factors exist to project uncontrolled emissions as opposed to controlled emissions. Other commenters agreed that the use of a new potential to emit calculus, along with the complex control device definition in the current draft, adds yet another wrinkle to an already confused issue. These commenters argued that allowing sources to consider controls in determining potential to emit would be consistent with EPA's stated intent to apply the subpart B requirements only to significant units. One commenter stated that EPA should maintain consistency with other CAA programs such as title V, NSR and MACT.

Response: The Agency disagrees that computing precontrol emissions is difficult or complex. The calculation of precontrol emissions is the same as for post-control emissions that the commenters suggest be used with the multiplication factor based on a control device efficiency value. This

simple calculation step need not involve measurements of control device inlet values but may rely on vendor guarantees, historical information, or other published information. The CAM guidance document will provide examples of this calculation for a variety of situations.

Letter(s): Air Products and Chemicals (VI-D-186); ASARCO Incorporated (VI-D-187); Clean Air Implementation Project (VI-D-153); Coalition for Clean Air Implementation (VI-D-164); Class of '85 Regulatory Response Group (VI-D-161); Colorado Association of Commerce and Industry (VI-D-182); Exxon Company, USA (VI-D-135); General Electric Company (VI-D-156); Ohio Chamber of Commerce, et al (VI-D-160); Texaco Environment Health and Safety (VI-D-199); Texas Natural Resource Conservation Commission (VI-D-189); Texas Title V Planning Committee (VI-D-188)

2.1.3: Applicability for Units with Active Controls

Comment a: A few environmental and state commenters supported subpart B applicability for some units without active controls. These commenters argued that it is not good policy to exclude all units without active control devices from subpart B since some units without active controls have emissions that vary significantly and should be closely monitored. One commenter gave an example of a utility boiler capable of emitting more than 100 tons per year of NO_x which may be controlled by combustion controls only. In supplemental comments following the release of portions of the RIA, this environmental organization reiterated its objection to allowing many major sources to conduct little or no monitoring under subpart C simply because they do not have control devices. The commenter argued that emissions at units without add-on controls, such as those using low NO_x burners, can be variable and require effective monitoring. They also stated that recordkeeping may be an accurate predictor of SO₂ emissions, but cannot be assumed to be appropriate for NO_x and CO where control of the combustion process is critical.

Another commenter mentioned units using certain combinations of control methods cited in Table 2 of EPA's "control device" guidance or other process methods, such as low NO_x burners, as examples of important units that should be subject to subpart B requirements. One state agency proposed that all major source units with significant potential emissions

should be subject to subpart B requirements regardless of the presence of active controls. This commenter noted that a nitrate production facility using ammonia as a feed stock followed by caustic misters to convert NO_x to nitrate would not be subject to subpart B because the misters would be considered process units and not add-on controls although there is major potential to emit. The commenter also agreed that units like large low NO_x burners should be subject to subpart B requirements.

Response: The Agency agrees that some process operations are necessary to proper emissions control and should be monitored. The deciding factor in determining whether monitoring can be effective is the degree to which the owner or operator can govern the process or control device operation to minimize emissions to the levels necessary to comply with the applicable standard. Some combustion control practices fall into this category including flue gas recirculation and ammonia injection for NO_x control. The final rule makes clear that monitoring of such operations (e.g., recirculation and injection rates) would be subject to part 64 requirements. On the other hand, the Agency disagrees that emissions variability is necessarily a deciding factor in determining when additional monitoring can be effective in improving compliance operations. Variability of emissions resulting from raw material or fuel component variability when that is the means used to comply with the applicable limit is something over which the owner or operator has only limited short term control. Addition of continuous monitoring for such operations would constitute monitoring for monitoring's sake with little or no added value over the required recordkeeping of raw material or fuel supply specifications.

For similar reasons, low NO_x burner technology and certain other types of combustion control measures are not included in the definition of "control device" in the final rule. Most types of combustion units that have low NO_x burner technology use such technology as an inherent part of the process operation and the technology is subject to automatic combustion control that does not provide significant operational flexibility that could afford the owner or operator with an opportunity or incentive to manipulate NO_x control levels. For these types of units, the recordkeeping of regular inspection and maintenance of the low NO_x burners (e.g., annular flow ratio adjustment settings, burner replacement, etc.) in combination with periodic checks of emission levels with appropriate test methods, as necessary, are very likely sufficient to ensure that the unit is being

operated in a manner consistent with good air pollution control practices and that the low NO_x technology continues to reduce emissions at least to the level of the standard. The general monitoring requirements in part 70 are adequate to assure that this type of appropriate monitoring is employed including the application of continuous emission monitoring systems where already required.

Of course, if there are particular units that fall into the categories described above which raise a significant continuous compliance concern, such as units with an historically poor compliance history, the permitting authority can require more detailed monitoring under the general part 70 monitoring provisions given that the permit must include appropriate monitoring for assessing compliance with the permit. In those cases, permitting authorities may want to consider elements of part 64 as potentially appropriate, but they may not be bound to satisfy each element of part 64.

Letter(s): Natural Resources Defense Council (VI-D-151); Natural Resources Defense Council (VI-D-244); NESCAUM (VI-D-192); Sierra Club, Lone Star Chapter (VI-D-242); State of New Jersey Dept. of Environmental Protection (VI-D-215)

Comment b: Two industry commenters requested that EPA clarify that subpart B applies only to units with "active control devices." Revisions to § 64.2(a)(ii) and the addition of a definition for "active control device" were proposed to reflect statements in the preamble that subpart B only applies to units with active control devices.

Response: The final rule includes a clarified definition of control device (see responses to comments in section 1.1 (Part III).)

Letter(s): Chemical Manufacturers Association (VI-D-152); Exxon Chemical Americas (VI-D-128)

2.1.4: Applicability for Major Sources

Comment a: A number of commenters favored an absolute major source threshold for subpart B based on a standard potential to emit definition. One

commenter argued that EPA should focus CAM on major emitting units which will cover 80-90 percent of emissions at title V sources while regulating only 25 percent of the emissions units. The commenter stated that EPA's extension of CAM applicability to non-major units adds tremendous costs to the program while providing nominal, if any, benefits and that enlarging the program to cover more units dilutes resources needed to carry out a monitoring program for the more significant units. According to the commenter, the rule should require CAM only for those units that emit at or above the major source threshold, which provides an adequate margin of safety since actual emissions are routinely and significantly less than potential emissions. Some commenters also noted that EPA can grant permitting authorities discretion to apply CAM to smaller units where necessary. These commenters argued that the breadth of applicability in the 1996 draft is not consistent with the goal of CAM to provide cost-effective means of filling monitoring gaps.

An industry coalition stated that EPA has authority to define "major stationary source" including defining this term differently for different purposes. According to this commenter, it is reasonable for EPA to read the statute as authorizing it to define major stationary source as each individual emissions unit that meets the major source emissions threshold since this definition increases the cost-effectiveness of the rule. Members of the coalition group analyzed their facilities and found that limiting applicability to units meeting the major source threshold results in a very high percentage of emissions being covered by the rule.

A commenter stated generally that any enforceable restrictions should be taken into account in calculating PTE. Another commenter specified that CAM should be applied to sources that are major after consideration of federally and state enforceable emission controls. One commenter objected to the use of pre-control PTE because it is not clear whether operational restrictions can still be considered and because it will subject too many insignificant units to subpart B.

A commenter estimated that the applicability threshold in the 1996 draft could result in 300,000 to 600,000 emission points requiring CAM plans and will involve huge investments of money (states that the cost associated with testing alone could easily exceed \$1 billion) and time which will be likely to overwhelm the title V process. The commenter proposed that sources below the major source threshold only be subject

to a much more limited set of CAM plan requirements and that the actual plans be developed by the source and kept on site with only the requirement to develop and operate the plan incorporated into the permit.

Response: The Agency disagrees with the estimates of the number of units affected by the CAM rule and the overall costs resulting from its implementation suggested by the commenters. The Agency estimates that the rule will apply to about 27,000 pollutant-specific emissions units which represent about 60 percent of emissions units with control devices and between 90 and 98 percent of actual emissions, depending on pollutant, from controlled units. The cost of monitoring for these units is estimated to be \$54,000,000.

Letter(s): Air Products and Chemicals, Inc. (VI-D-186); American Automobile Manufacturers Association (VI-D-157); Armstrong, Teasdale, Schlafly and Davis (IV-D-205); Association of Battery Recyclers (VI-D-155); CITGO Petroleum Corporation (VI-D-172); Clean Air Implementation Project (VI-D-153); Coalition for Clean Air Implementation (VI-D-164); Dupont Engineering (VI-D-127); Exxon Company, USA (VI-D-135); Independent Liquid Terminals Association (VI-D-178); Kennecott Corporation (VI-D-119); Texaco Environment Health & Safety (VI-D-199)

Comment b: One commenter recommended basing subpart B applicability on emission thresholds as defined by the local permitting authorities. The commenter noted that in some areas the major source thresholds have been adjusted below those in part 70 and that the current provisions are unclear for these circumstances.

Response: The Agency agrees that the definition of major source threshold may be lower than that defined by part 70 if it is defined by the local permitting authority. The locally defined threshold may apply for determining CAM applicability to the extent the permitting authority exercises its independent authority to require part 64 monitoring beyond the minimum required by part 64.

Letter(s): County Sanitation Districts of Orange County, California (VI-D-231)

Comment c: An environmental organization was opposed to using the major source threshold. The commenter argued that there is no statutory basis for limiting subpart B to units with emissions greater than the major source threshold, which exempts significant units simply because their emissions are less than a number designed to indicate if an entire source is major. This commenter noted that control device failure at units under the major source threshold could have enormous pollution control consequences.

Response: The Agency agrees that it would not be wise to exempt all units below the major source threshold and no additional response is necessary.

Letter(s): Natural Resources Defense Council (IV-D-151)

2.1.5: Applicability for Minor Sources

Comment a: Some commenters argued that EPA should establish that subpart B of the 1996 part 64 Draft does not apply to synthetic minor sources. A commenter explained that it wanted EPA to confirm that sources which have voluntarily assumed federally enforceable emissions limitations in order to be classified and regulated as minor sources would be exempt from subpart B since these sources limit emissions by means of limiting hours of operation and other measures rather than by the use of control devices. The commenter requested that EPA expressly exclude such sources from CAM and added that, to the extent that such sources use control devices to comply with minor NSR limits, they should be excluded as well. An alternative suggested by another commenter was that the rule could only include those limits taken to avoid major NSR when the potential to emit of the unit is above 85 percent of the level for triggering major NSR. This commenter described this approach as consistent with title V. A state agency stated that it does not agree with EPA that state minor NSR programs are applicable requirements for the federal CAA and part 70.

Response: The CAM rule applies to pollutant-specific emissions units at major sources that are required to obtain title V permits. To the extent that synthetic minor sources are exempt from title V permitting requirements or are not a major source, units at such sources are not subject to part 64 requirements. In addition, part 64 will not apply to synthetic minor sources that do not meet the definition of a "major source" in part 70 but

may be subject to part 70 because of NSPS or NESHAP units. Certain sources may be classified as synthetic minor sources for title 1, part C, New Source Review permit purposes (i.e., they are below the generally applicable 250 tons per year threshold for PSD permitting) but still be classified as a "major source" for part 70 purposes. Pollutant-specific emissions units at those sources which meet all of the part 64 applicability criteria will be subject to part 64. The criteria for triggering part 64 requirements are discussed above. Whether minor NSR programs are applicable requirements under part 70 is not an issue relative to part 64. No additional response is necessary.

Letter(s): Association of Battery Recyclers (VI-D- 155); Chemical Manufacturers Association (VI-D-152); Texas National Resource Conservation Commission (VI-D-189)

Comment b: A commenter stated that CAM should not apply to minor sources that are required to obtain part 70 permits since, by definition, non-major sources are less significant. In addition, the commenter noted that many of the non-majors source that could be subject to CAM would be MACT sources that will be exempt anyway. Finally, this commenter suggested that, at a minimum, the rule should defer CAM applicability for these sources. Other commenters argued that applicability for these sources was unclear. Two commenters recommended that the rule state explicitly that minor sources required to obtain title V permits are not subject to CAM. Another commenter stated that language in the discussion document accompanying the 1996 part 64 Draft was not consistent with rule language which suggested that minor sources required to obtain part 70 permits would be subject to subpart B rather than subpart C.

Response: The final rule states explicitly that part 64 applies to major sources, as defined under part 70, that are required to obtain a title V permit.

Letter(s): Electronic Industries Association (VI-D-137); General Electric Company (VI-D-156); Kennecott Corporation (VI-D-119); PPG Industries, Inc. (VI-D-136)

2.1.6: Discretionary Applicability of Subpart B

Comment a: A number of commenters argued that the CAM rule's provisions which give permitting authorities the discretion to apply subpart B monitoring requirements to additional emissions units should be altered or eliminated. Two commenters stated that by providing permitting authorities with the discretion to cover additional emissions units under § 64.2(a)(2), the CAM rule potentially subjects too many emissions units to subpart B monitoring requirements. Another commenter added that there is no need for this provision if subpart B units are clearly delineated as those with control devices.

Several commenters described § 64.2(a)(2) as an overly-expansive delegation of authority to state and local permitting authorities. Other commenters argued that this provision is also unnecessary because state legislatures can give permitting authorities the power under state law to impose more stringent monitoring requirements than required under the federal program. Another commenter requested that since some states limit the ability of a state agency to impose more stringent requirements, this provision should be narrowly tailored for extreme cases. If this provision is not deleted, it should be modified such that permitting authorities can only impose subpart B monitoring on subpart C units when necessary or appropriate to assure compliance with a part 70 permit.

Some commenters suggested limiting this discretion as an alternative to eliminating it. A commenter explained that there need to be some criteria to judge whether the permitting authority has acted properly as well as a mechanism to resolve disputes over a decision to apply this paragraph. One commenter stated that under the proposed revision, the authority must base this determination on the following: the size of the emissions unit, pollutant toxicity, attainment status, compliance history, likelihood of deviations, cost effectiveness, and other appropriate factors. A commenter added that permitting authorities should consider exposure to residential population as well as pollutant toxicity in reclassifying sources. Another commenter discussed an example of a recent attempt by one permitting authority to use discretionary authority under NSR permitting to require a CEMS where a CEMS was not required under any specific requirement and other less costly methods could assure compliance. This commenter was concerned that permitting authorities could similarly abuse this discretion and it should therefore be deleted. The commenter asserted that if this provision is not deleted, economic costs and operational constraints should be specified as required criteria for judging

the reasonableness of using this authority. Another commenter argued that this provision only further increases the likelihood that similar sources will be treated differently and therefore increases the chance that sources could be put at an economic disadvantage.

One commenter stated that even though this provision should be eliminated, it commended EPA for revising the prior draft rule so that EPA can only reclassify sources when it is the permitting authority, since EPA should not second guess states on relatively minor matters to which the states are closest.

Two commenters argued that EPA cannot properly assess the impact of the rule when it cannot possibly know how many sources will be required by the states to comply with subpart B.

Response: The Agency agrees that repetition of the inherent discretion available to permitting authorities is unnecessary. The final rule has only the savings provisions that, because part 64 requirements may overlap with many other applicable requirements, nothing in part 64 is intended to excuse the owner or operator from applicable requirements under the Act (including emission limitations or standards as well as other monitoring requirements) or to restrict the authority of the EPA or the permitting authority to impose additional monitoring under the Act or State law, as applicable.

Letter(s): American Automobile Manufacturers Association (VI-D-157); American Gas Association (VI-D-154); American Petroleum Institute (VI-D-146); Chemical Manufacturers Association (VI-D-152); Coastal Corporation (VI-D-123); Colorado Association of Commerce and Industry (VI-D-182); Gas Processors Association (VI-D-163); General Electric Company (VI-D-156); KBN Engineering and Applied Sciences, Inc. (VI-D-229); Pennsylvania Chamber of Business and Industry (VI -D-114); Total Petroleum (VI-D-190); Texaco Environment Health and Safety (VI-D-199); UCAR Carbon Company, Inc. (VI-D-122); Utility Air Regulatory Group (VI-D-140); Virginia Power (VI-D-226)

Comment b: Some commenters argued that permitting authorities should be able to exempt subpart B units or reclassify pollutant-specific emissions units from subpart B to subpart C. According to one commenter, if states retain

the power to reclassify subpart C sources as subject to subpart B, fairness and logic dictate that this authority should run both ways. Another commenter added that the title V process will assure all such decisions are reviewed by both EPA and the public. A commenter asserted that there are some cases where a unit, such as a cement or limestone silo controlled by a small baghouse, may be subject to subpart B monitoring requirements where there is no need for such monitoring and recommended that permitting authorities be given the flexibility to classify some subpart B units as subpart C units when it can be demonstrated that subpart B monitoring does not yield any significant environmental benefit. One commenter also stated that providing permitting authorities significant discretion in exempting a unit that would otherwise be subject to subpart B would mitigate problems associated with the broad scope of subpart B and specified factors to be considered.

Response: The final rule does not include the monitoring defined for subpart C units; therefore, the possibility of reclassifying a pollutant-specific emission unit from subpart B to subpart C is not relevant. With respect to smaller units that may be subject to part 64, EPA notes that the final rule also distinguishes between the frequency of monitoring required for small and large units (see section 6 (Part III), below). Granting permitting authorities broad authority to exempt sources from part 64 is inconsistent with EPA's rationale for the sources covered.

Letter(s): Chemical Manufacturers Association (VI-D-152); Exxon Chemical Americas (VI-D-128); Pennsylvania Department of Environmental Protection (VI-D-174); Texaco Environment Health and Safety (VI-D-199)

Comment c: A commenter recommended allowing permitting authorities to determine subpart B applicability on a case-by-case basis.

Response: The Agency believes that the monitoring and the applicability criteria as defined in part 64 represent the fundamental requirements for a monitoring program. The intention is that permitting authorities apply part 64 as minimum requirements and build upon them in developing a monitoring program appropriate to a particular area. Case-by-case reduction of part 64 monitoring requirements or decisions to discount applicability are not consistent with the design of part 64. The EPA

encourages States to consider adding monitoring requirements to existing and new rules that are consistent with or exceed part 64 requirements.

Letter(s): County Sanitation Districts of Orange County, California (VI-D-231)

2.1.7: Requests for Clarification

Comment a: A few commenters argued that subpart B applicability should be based on emissions points rather than on emissions units. Two of the commenters stated that the term "emissions unit" is nebulous and can apply to a wide range of equipment and systems but an "emissions point" would always be defined as the point of air emissions discharge, even where multiple tanks or vents are directed to a single control device. These commenters provided examples of confusion that may result from use of the term "units" and stated that clarification on this matter will simplify the analysis by not requiring determinations about what constitutes a unit, and by eliminating confusion over determining "potential to emit" when multiple control devices are involved. Another commenter also recommended specific revisions to § 64.2(a)(1) to replace the term "emissions unit" with "emissions point."

Response: The Agency disagrees that defining applicability based on emissions point rather than emissions unit would simplify applicability determinations. Section 70.5(c) requires owners or operators to identify all emissions units, as well as all applicable requirements and control equipment associated with each emissions unit. Because part 64 will be implemented through the title V permit process, consistency with part 70 terminology is essential. Furthermore, most applicable emission limitations or standards apply to specific manufacturing processes or operations (i.e., emissions units), not to individual vents or points of discharge. As noted above, the goal of the rule is to provide for monitoring of pollutant-specific emission units to be used to certify compliance with applicable requirements. The final rule includes clarification of the definition of pollutant-specific emission unit and additional description on monitoring of multiple units venting to a common control device and single units venting to multiple control devices.

Letter(s): ASARCO Incorporated (VI-D-187); Texas Chemical Council (VI-D-236); Texas Title V Planning Committee (VI-D-188)

Comment b: One state agency requested clarification that any unit that is exempt from subpart B is subject to subpart C unless it is exempt pursuant to Section 64.2(c). This commenter also requested clarification as to whether the phrase "under this paragraph (a)(2)" in § 64.2(a)(2) is intended to require some type of action on the part of EPA, such as granting delegation authority to the states to make pollutant-specific emissions unit applicability determinations per § 64.2(a)(2).

Response: The final rule does not include subpart C as did the 1996 part 64 Draft rule; however, the final rule does make clear that pollutant-specific emission units not subject to part 64 are subject to periodic monitoring requirements in accordance with the title V operating permits programs.

Letter(s): Ohio EPA, Division of Air Pollution Control (VI-D-180)

Comment c: A commenter requested clarification as to whether a pollutant-specific emissions unit with an uncontrolled HAP emissions rate below the HAP threshold (10 tons per year) is subject to subpart B if the combined HAP emissions from two or more pollutant-specific emissions units result in potential emissions of total HAP greater than 25 TPY, or whether each emissions unit would fall under subpart C.

Response: The applicability of part 64 is aimed at pollutant-specific emissions units with applicable emission limitations or standards. The rule does not provide for combining emissions of multiple pollutants subject to separate emission limitations or standards to determine applicability. The permitting authority may determine to apply the part 64 monitoring requirements in such situations, as appropriate.

Letter(s): Ohio EPA, Division of Air Pollution Control (VI-D-180)

Comment d: One commenter requested clarification that sources are not required to calculate potential pre-control device emissions for like units, in the same manner that they are not required to develop multiple CAM plans for like-units.

Response: The Agency agrees that documentation of applicability may include information from like units rather than case-by-case calculations. See section 8 (Part III), below for further discussion.

Letter(s): County Sanitation Districts of Los Angeles County (VI-D-232)

Comment e: A commenter specifically requested confirmation that if a unit with a fabric filter is not subject to any specific limitations covering the fabric filter then subpart B does not apply. Another commenter requested clarification that subpart B applies only to the pollutant for which the control device was installed. The commenter asserted that this has been stated as EPA's intent, but that the rule is not clear on this issue since the definition of "pollutant-specific emissions unit" only limits the universe of units, not control devices, brought into subpart B.

Response: The applicability provisions in part 64 focus monitoring requirements on units that use control devices to achieve compliance. If, as in the first commenter's example, a fabric filter is installed but is not necessary to achieve compliance because there is no applicable emission limitation or standard, part 64 would not apply. For the second comment, § 64.2 states explicitly that part 64 applies only to those pollutant-specific emissions units for which a control device is used to achieve compliance. Thus, consider as an example a boiler that uses only a fabric filter as a control device. Also, assume that the boiler has potential pre-control device emissions of particulate matter and carbon monoxide that exceed the part 64 threshold, and that the boiler is subject to applicable requirements for both pollutants. If the boiler relied on the fabric filter to control particulate matter emissions, but not to control CO emissions, part 64 would apply to the boiler only with respect to particulate matter.

Letter(s): American Furniture Manufacturers Association (VI-D-203); ASARCO Incorporated (VI-D-187)

Comment f: A commenter provided specific examples to highlight applicability concerns. The commenter stated that CAM applicability determinations seem to be based on a "potential to emit" calculation which assumes operations for 8,760 hours per year. The commenter then argued that this assumption is unrealistic for many sources and went on to provide a

table of engine-driven systems with averaging operating hours of from 1,000 to 5,000 hours per year.

Response: As noted above, the definition of potential to emit shall have the same meaning as provided under part 70 or 71, provided that it shall be applied with respect to an "emissions unit" as defined under this part in addition to a "stationary source" as provided under part 70 or 71. That defined term takes into account any federally-enforceable restrictions on operating hours. The use of potential pre-control device emissions in part 64 does not affect this aspect of the part 70 definition.

Letter(s): LaClede Gas Company (VI-D-198)

Section 2.2: Subpart C Applicability

2.2.1: Scope of Applicability

Comment a: A few commenters offered general support for the applicability provisions. An association of state and local authorities stated that the universe of sources subject to CAM is reasonable and represents the size and type of emissions units that should regularly conduct monitoring. A commenter specifically supported the provisions which require sources with passive emission controls to comply with the recordkeeping requirements of subpart C but do not require them to develop CAM plans. One commenter also supported the option for no monitoring for some units under subpart C. Another commenter favored the more streamlined two subparts of the 1996 CAM Draft over the three tiered scheme in the 1995 CAM Draft.

Response: No response necessary.

Letter(s): American Electric Power (VI-D-129); Department of Energy (VI-D-196); Pacific Gas Transmission Company (VI-D-230); STAPPA/ALAPCO (VI-D-179)

Comment b: A number of commenters supported limiting the applicability of subpart C. One commenter stated that the breadth of subpart C applicability is contrary to improvements suggested during the enhanced monitoring

rulemaking to limit applicability and the principle of minimizing costs expressed in "Reinventing Environmental Regulation," and produces little if any environmental benefit. Two commenters argued that at the very least, EPA should not apply CAM to non-significant units that would not have been covered under the original EM proposal. According to these commenters, the breadth of subpart C (and subpart B) applicability will result in extreme administrative burdens with virtually all 25,000 title V sources being required to submit permit applications and proposed monitoring protocols or CAM plans. These commenters were also concerned that the exemptions are not self-implementing and hundreds of thousands of exemption requests will also have to be submitted and reviewed. Finally, a commenter noted generally that the approach taken in subpart C will result in thousands of exemption proposals and create unmanageable paperwork burdens, and stated that the rule should at least exempt a specific list of minor units that do not need to be addressed in the first round of subpart C requirements.

A commenter argued that the applicability provisions of CAM (subparts B and C combined) apply to too many pollutant-specific emissions units noting that CAM monitoring requirements apply to all units at a major source which are subject to an emission limitation or standard whereas the EM proposal would have applied only to those units at a major source with emissions of a regulated pollutant for which the source is major at a level equal to or greater than 30 percent of the major source threshold for that pollutant.

Many commenters recommended specific ways to limit the applicability of subpart C. The current CAM draft applies subpart C to too many sources. Subpart C applicability should be determined on a unit basis. Recommends revising § 64.2(b) such that subpart C applies only to pollutant-specific emissions units located at a major source (i.e. major for the specific pollutant) which is required to obtain a part 70 permit, that are not subpart B units, and are not otherwise exempt under § 64.2(c)(2). A few commenters supported establishing a self-implementing size or unit capacity de minimis threshold under which subpart C does not apply. Other commenters agreed that this approach would free permitting authorities from the process of approving the use of limited monitoring or recordkeeping for less significant units. One of these commenters provided facility data to show that 70 percent of units at four facilities (755 total units) likely fall into the "no monitoring" category.

Some commenters specifically favored subpart C applicability only for major units based on a standard potential to emit definition. They also stated that EPA could grant permitting authorities discretion to apply CAM to smaller units where appropriate. These commenters argued that the current breadth of applicability is not consistent with CAM's stated goal of providing cost-effective means of filling monitoring gaps. Other commenters agreed that smaller units could be subject to subpart C at the permitting authority's discretion or could be subject to state monitoring and recordkeeping requirements through the title V permit, or suggested that these units could be addressed in later rounds of permitting. A commenter suggested that the rule explicitly state that minor sources required to obtain part 70 permits are not subject to CAM.

One commenter suggested that actual emissions of greater than 50 percent of the major source threshold would be an appropriate criterion and argued that periodic monitoring already addressed in a permit or other monitoring proposed in a permit application, or no monitoring at all would be appropriate for insignificant or trivial units. Another commenter recommended applying subpart C to units without active control devices if their actual emissions were at or above 40 percent of the applicable major source threshold and to units with active control devices that have precontrol device "actual" emissions below 40 percent of the major source threshold. This commenter provided a detailed analysis of one facility to demonstrate the reasonableness of this approach. Some commenters recommended revising the rule to provide that subpart C applies only to emissions units that are subject to an applicable requirement. A few commenters stated the intent reflected in the preamble and technical guidance document that limits subpart C to units subject to an applicable requirement should be incorporated into the rule itself. They were concerned that the current subpart C applicability provisions could include countless pieces of small, insignificant equipment that are not otherwise subject to EPA air regulation. Other commenters argued that, although they did not believe it was EPA's intent, the 1996 part 64 Draft suggests that, if a source has a non-exempt emission limit and includes at least one PSEU that is not subject to subpart B, then subpart C applies to all PSEUs at the source. Two commenters specified language changes to exempt units with no applicable requirement as defined in part 70, including adding the phrase "for applicable regulated air pollutants" to § 64.2(b)(1) to clarify that subpart C does not apply to emissions that are not applicable regulated air pollutants. A commenter specifically

recommended that for purposes of subpart C, internal combustion engines should not be aggregated with other sources at a facility to determine if they are a major source subject to CAM. The commenter argued that since subpart B applies on a unit by unit basis, subpart C should as well.

Response: The Agency has decided not to pursue the Subpart C option included in the 1996 part 64 Draft based on the comments received and also because of concerns about disrupting the ongoing implementation of part 70. The applicability of monitoring for units not subject to part 64 will be determined in accordance with part 70 requirements. No additional response is necessary.

Letter(s): Air Products and Chemicals (VI-D-186); American Automobile Manufacturers Association (VI-D-266); American Gas Association (VI-D-154); Chevron Companies (VI-D-132); Clean Air Implementation Project (VI-D-153); Coalition for Clean Air Implementation (VI-D-164); Coastal Corporation (VI-D-123); Eastman Chemical Company (VI-D-173); Eli Lilly Company (VI-D-124); Engine Manufacturers Association (VI-D-117); Exxon Company, USA (VI-D-135); Georgia Department of Natural Resources (VI-D-193); Pennzoil Company (VI-D-133); PPG Industries, Inc. (VI-D-136); R.R. Donnelley & Sons Company (VI-D-221); Specialty Steel Industry of North America (VI-D-143); Steel Manufacturers Association (SMA) (VI-D-144); Texaco Environment Health and Safety (VI-D-199); Texas Chemical Council (VI-D-236); UCAR Carbon Company, Inc. (VI-D-122); Union Carbide Corporation (VI-D-170); Utility Air Regulatory Group (VI-D-140); Virginia Power (VI-D-226)

Comment c: Two commenters argued that sources with existing monitoring should be exempt from subpart C. They stated that although § 64.9 of the 1996 part 64 Draft allows the source to propose the use of existing monitoring, it makes little sense to require permitting authorities to make a determination for every requirement that existing monitoring is adequate.

Response: As noted above, the final rule does not include requirements for units that would have been subject to subpart C requirements. These determinations will be made in accordance with part 70 requirements. No additional response is necessary.

Letter(s): American Automobile Manufacturers Association (VI-D-157); Phillips Petroleum Company (VI-D-131)

2.2.2: Recommends Deleting Subpart C

Comment a: A few commenters stated that since subpart C does not apply to control devices, subpart C is unnecessary to accomplish the CAM goal of ensuring that proper O&M is used on control devices and should be deleted. These commenters stated that permitting authorities could remain free to make subpart C-type judgments a part of their title V or other programs especially under a programmatic option.

One commenter argued that units not equipped with active control devices are usually incapable of modulating their pollutant emissions and should not be regulated by part 64. The commenter stated that monitoring of uncontrollable emissions is wasteful of limited resources that could be more appropriately concentrated elsewhere.

Response: As noted above, the final rule does not include monitoring requirements for units that would have been subject to subpart C requirements. These units will be subject to the monitoring requirements in § 70.6 (a)(3) (or the provisions of part 71, if applicable). No additional response is necessary.

Letter(s): ASARCO Incorporated (VI-D-187); CITGO Petroleum Corporation (VI-D-172); Gas Processors Association (VI-D-163); Texas Title V Planning Committee (VI-D-188)

2.2.3: Requests Clarifications

Comment a: A commenter requested clarification on the following text from the discussion accompanying the 1996 part 64 Draft: "...whether it is necessary to exempt any major emission units from CAM monitoring if minimal recordkeeping of process hours of operation or ordinarily recorded operational activity will satisfy CAM data collection under subpart C." The commenter asked why an exempt unit would be required to monitor or record anything.

Response: The context of the referenced text was in a request for comment on an exemption included in the 1996 part 64 Draft rule for municipally owned utilities. Specifically, the request for comment was to address whether the resources saved by exempting such units even from minimal recordkeeping of process operations were justifiable given that some of these units may be major emissions units. Under the final rule, exempt units such as small municipal backup utility units, must comply with the periodic monitoring requirements in part 70. The exemption provided is only for the requirements in part 64.

Letter(s): Wisconsin Electric Power Company (VI-D-130)

Section 2.3: Exemptions

Section 2.3.1: Exempt Limits

2.3.1.1: Supports Exemption of Various Emission Limits

Comment a: Several commenters supported the exemption of emission limitations or standards proposed by the Administrator after November 15, 1990, pursuant to section 111 or section 112 of the Clean Air Act. The commenters agreed that the monitoring in these standards will satisfy the requirements of the Act. A state agency expressed its support for EPA's statement in the preamble that it is committed to developing post-1990 standards with continuous compliance determination methods. The commenter proposed reviewing standards promulgated prior to the 1990 CAAA, when such review occurs pursuant to section 111(b) of the Act, to determine whether existing standards require additional monitoring requirements to satisfy part 64.

Response: No response necessary.

Letter(s): Dow Chemical Company (VI-D-120); Georgia Department of Natural Resources (VI-D-193); Integrated Waste Services Association (VI-D-147); Kennecott Corporation (VI-D-119); Louisiana Mid-Continent Oil and Gas Association (VI-D-184); Texas Natural Resource Conservation Committee (VI-D-189); The Fertilizer Institute (VI-D-145)

Comment b: One commenter asked for confirmation that the exemption still applies where a MACT standard requires only general O&M even though the definition of emission limitation or standard specifically excludes such general requirements from the definition of an emission limitation or standard. The commenter cited the gravure MACT as an example, and suggested changes to the definition of emission limitation or standard to address the issue.

Response: The Agency intends that the exemption apply to emission limitations or standards proposed by the Administrator after November 15, 1990 pursuant to section 111 or 112 of the Act without exception. If a specific subpart of part 63 establishes a specific source category standard related to O&M (as opposed to the general provisions in § 63.11), that O&M requirement would meet the definition of emission limitation or standard.

Letter(s): R.R. Donnelley & Sons Company (VI-D-221)

Comment c: Another commenter requested clarification that where a part 70 permit takes advantage of the ability to streamline multiple requirements by subsuming the less stringent requirements, CAM will not apply to the subsumed requirements. As an example the commenter argued that an MWC unit exempt from CAM with respect to post-1990 MACT limits should not be subject to CAM for pre-1990 limits if the part 70 permit subsumes those limits under the more stringent MACT standard. The commenter also stated that EPA should provide some form of transition phase so that this subsumed limit concept could be incorporated into the title V permit, especially where exempt MACT limits have been promulgated but have future effective dates. The commenter illustrated this point by stating that the MWC MACT allows facilities until the year 2000 to come into compliance and a source should not have to address CAM for existing limits where those existing limits will be subsumed when the MACT rule becomes effective in the year 2000.

Response: The Agency agrees that, to the extent that monitoring specified through a permit addresses the control of more than one pollutant (e.g., a criteria pollutant and a HAP) subject to separate limitations, a separate set of monitoring requirements for each pollutant is unnecessary. That is not to say that the requirements do not apply; but, instead, the permit may specify that monitoring that assesses compliance with the more stringent

standard may also satisfy part 64 for monitoring of compliance for other regulated pollutants. On the other hand, the Agency disagrees that implementation of part 64, if applicable, or other existing monitoring requirements (e.g., part 70) should be delayed until new regulations apply. Owners of emission units with existing emission limitations or standards are subject to compliance certification requirements for those limitations or standards. Part 64 is intended to define minimum monitoring requirements to support valid certifications.

Letter(s): Integrated Waste Services Association (VI-D-147)

Comment d: One commenter offered specific support for the § 64.2(c)(1)(iii) exemption for Acid Rain Program requirements stating that under part 75 monitoring requirements already exist for power plant units subject to acid rain limits.

Response: No response necessary.

Letter(s): American Electric Power (VI-D-129)

Comment e: Several commenters supported the § 64.2(c)(1)(iv) exemption for emission limitations or standards that apply solely under an approved emissions trading program. One commenter stated that the inclusion of the exemption in part 64 is responsive to previous comments urging EPA not to discourage source participation in emissions trading programs by subjecting such programs to part 64 monitoring requirements.

Two commenters who supported the exemptions in the 1996 part 64 Draft generally expressed particular support for this exemption. One of the commenters stated that the expanded category of exemptions in this draft correctly recognized that certain applicable requirements should not be subject to CAM and that the monitoring associated with many standards should be deemed to satisfy CAM. The commenter noted that these exemptions serve the CAM goal of providing cost-effective gap-filling.

One commenter requested EPA confirmation that SCAQMD's Regional Clean Air Incentives Market (RECLAIM) program qualifies as an approved emissions trading program under § 64.2(c)(i)(iv).

A commenter recommended that this provision be revised to specify that averaging plans approved under a State SIP for compliance with NO_x RACT or other requirements are included under this exemption provided they are subject to part 75 or other continuous emission monitoring requirements.

Response: The Agency agrees that monitoring for compliance with emission trading programs would incorporate direct measure of emissions and would satisfy CAM requirements. The Agency believes that a blanket exemption in the rule for state SIP monitoring is unnecessarily broad and, instead, provides that use of a continuous emission monitoring system or predictive emission monitoring system that is subject to any of several published performance specifications shall be presumed to satisfy the general design criteria in part 64. This reduces the documentation required for justifying monitoring and allows the permitting authority an opportunity to review the appropriateness of the operating criteria and applicable emission limitations.

Letter(s): American Petroleum Institute (VI-D-146); Clean Air Implementation Project (VI-D-153); Niagara Mohawk (VI-D-168); South Coast Air Quality Management District (VI-D-233); Texaco Environment Health and Safety (VI-D-199)

Comment f: Certain commenters expressed general support for the § 64.2(c)(1)(v) exemption for emission caps meeting the requirements of § 70.4(b)(12).

Other commenters qualified their support with requests to extend this exemption. One commenter stated that a PAL should not have to meet § 70.4(b)(12) to qualify for the exemption. The commenter argued that any federally-enforceable PAL with monitoring to determine compliance should be exempt. Two pharmaceutical industry commenters supported EPA's recognition of the past efforts of states and industry to use innovative emissions cap approaches to meet air pollution control requirements while allowing pharmaceutical facilities to retain the operating flexibility to respond to medical emergencies and market demands. However, these commenters argued that EPA should expand the § 64.2(c)(1)(v) emission cap exemption to include emissions caps created under NSR/PSD permits and existing applicable requirements. The commenters noted that to increase their operating flexibility or to

avoid the NSR/PSD process pharmaceutical facilities have obtained emissions caps over all or some of their operations which will be incorporated into the sources' title V permits. They also stated that states have issued construction and operating permits with emission caps on an entire facility, on a portion of a facility (e.g., the pharmaceutical organic synthesis production operations) or on a building within a facility.

Response: The Agency believes that the final rule adequately addresses exemptions for plant-wide emission limits with monitoring to show compliance with applicable limits under the provisions in the CAM rule for exempting units that apply continuous compliance determination methods. Further, the final rule includes an exemption for units with emissions caps as defined in part 70 that is sufficiently broad to include NSR/PSD provisions. No additional revisions are necessary.

Letter(s): Chevron Companies (VI-D-132); Eli Lilly Company (VI-D-124); Electronic Industries Association (VI-D-137); Pharmaceutical Research and Manufacturers of America (VI-D-217); The Fertilizer Institute (VI-D-145)

2.3.1.2: Recommends Broadening Exemption for Various Emissions Limits

Comment a: One commenter requested that the exemptions be broadened to include situations where multiple requirements apply and the monitoring required to meet one requirement will assure compliance with the other requirement. The commenter stated that a mechanism is needed to exempt from CAM pre-November 15, 1990 applicable requirements where compliance is demonstrated by monitoring which is part of a post-November 15, 1990 rule. The commenter argued that this is necessary since title V provisions will address duplicative requirements for the same pollutant but not the case of common monitoring for different pollutants such as an emission unit with both a HAP and a VOC limit where parameter monitoring under MACT also shows compliance with the part 61 or VOC limit and vice-versa.

Response: The Agency has published guidance (White Paper 2, docket item A-91-52-VI-I-2) to address the streamlining of multiple emission limitations and associated monitoring. As noted above, such streamlining of monitoring requirements can be used to satisfy part 64. No additional response is necessary.

Letter(s): Exxon Chemical Americas (VI-D-128)

Comment b: Two commenters recommended broadening the exemption for title IV requirements. According to one commenter, all Acid Rain affected units should be exempt from CAM, rather than exempting only certain Acid Rain emission limits. The commenter argued that an additional burden on utilities is unnecessary since most of the larger utility plants are subject to monitoring requirements under NSPS and SIPs as well as part 75. The commenter stated that the additional burdens should not be expected to add to environmental quality. Another commenter added that the rule should exempt AELs established pursuant to section 407(d) of the CAA and emissions limitations established in a NO_x emissions averaging plan pursuant to 407(e) since compliance with these limits are determined by part 75 just as the limits included in the draft rule's exemption are.

Response: The Agency disagrees that monitoring for compliance with the title IV emissions limitations provides information sufficient to determine compliance with all other emission limitations or standards for the same emissions unit. For example, many of the utilities subject to SO₂ annual limitations because of the Acid Rain regulations are also subject to short term (e.g., 3-hour) emission limitations resulting from other regulations (e.g., NSPS). The monitoring data reduction to show compliance with the acid rain limitations would not be sufficient for certifying compliance with the short term standards. The Agency agrees that the monitoring used for measuring compliance with the acid rain SO₂ annual limitation may be modified to accommodate the short term averaging time and part 64 allows that such application of existing monitoring is appropriate. On the other hand, the same facility may also be subject to particulate emission limitations not addressed at all by the acid rain monitoring. Monitoring for compliance with the particulate emission limitation or any other pollutant would be not be addressed without part 64.

The Agency agrees that units subject to alternative emission limits or emission averaging under sections 407(d) and (e) are subject to monitoring adequate to demonstrate compliance with the applicable limitations under title IV should not be subject to additional monitoring to show compliance under the CAM rule. The Agency believes that sources subject to such regulations are exempted from CAM requirements as indicated above.

Letter(s): Cinergy Corp (VI-D-141); Class of '85 Regulatory Response Group (VI-D-161)

Section 2.3.2: Continuous Compliance Determination Methods Exemption

2.3.2.1: Supports Continuous Compliance Determination Method Exemptions

Comment a: Two commenters specifically supported the § 64.2(c)(1)(vi) exemption for sources subject to continuous compliance determination methods that do not use an assumed control factor. These commenters stated that any source without active controls and which already has a continuous compliance determination method specified in its title V permit should be exempt from the CAM rule.

Response: No response necessary.

Letter(s): Enron Operations Corp. (VI-D-235); Pacific Gas Transmission Company (VI-D-230)

2.3.2.2: Recommends Broadening Continuous Compliance Determination Method Exemption

Comment a: Some commenters argued that the continuous compliance determination method exemption should be expanded to include any continuous compliance method specified in any air permit or federal standard. Two commenters stated that the exemption in the 1996 part 64 Draft was limited to emission limitations or standards "for which a part 70 permit specifies a continuous compliance determination method," and that owners and operators will have to submit CAM plans with their permit applications and therefore will not be able to determine if they are eligible for the exemption. The commenters proposed broadening the exemption to avoid this presumably unintended circular result. Another commenter proposed that the continuous compliance determination method exemption be based on emissions limitations or standards in existing applicable requirements rather than in part 70 permits. This commenter stated that such a revision would clarify the definition and reflect the example lists in the 8/2/96 CAM technical guidance document. Finally, a

commenter suggested using either the underlying requirement or the part 70 permit as a basis for qualifying for the exemption.

Response: The Agency's intention behind the exemption is to relieve the source owner and the permitting authority of the burden associated with establishing new monitoring to satisfy part 64 if direct measurement of compliance is already required. If an owner or operator proposes monitoring with the permit application intended to qualify as a continuous compliance determination method, the Agency believes that the language of the rule allows sufficient flexibility for the source owner and the permitting authority to determine if the monitoring would qualify and, then, if the exemption applies. No further revision to the rule is necessary.

Letter(s): American Gas Association (VI-D-154); Coastal Corporation (VI-D-123); Colorado Association of Commerce and Industry (VI-D-182); Eli Lilly Company (VI-D-124)

Comment b: An automotive industry commenter requested that the EPA/Automotive Protocol should be specifically exempted from CAM because it meets the definition of a continuous compliance determination method. According to the commenter, the protocol is used to determine compliance, it provides for compliance determination on a continuous basis, and it verifies through testing and other information the derivation and implementation of the algorithms used as part of the protocol. The commenter also stated that the protocol was developed over a number of years by EPA and the automotive industry to assure consistent compliance determination procedures, and it would be inappropriate to now allow the industry to be subjected to various interpretations of how the protocol should be used in the context of CAM.

Response: The Agency disagrees that the subject protocol completely satisfies the requirements for exempting emission limits that rely on a continuous compliance determination method according to part 64. The exemption provided in part 64 does not apply if the applicable compliance method includes an assumed control device emission reduction factor that could be affected by the actual operation and maintenance of the control device. The protocol is just such a method for which continuous compliance is determined by calculating emissions on the basis of coating records and an assumed control device efficiency factor based on an

initial performance test. For the purposes of complying with part 64, monitoring would apply to the control device, transfer efficiency, if appropriate, and the capture system, but not to the remaining elements of the coating line.

Letter(s): American Automobile Manufacturers Association (VI-D-157, 266, 270, and 273)

Comment c: A coalition of industry groups argued that the exemption for sources with continuous compliance determination methods should be broadened to include sources with requirements based on emission factors. This commenter stated that the factors are integral to such standards, and applying CAM would have the effect of imposing new compliance obligations on these sources.

Response: The Agency believes that part 64 applies to pollutant-specific emission units subject to this type of emission limitation and compliance method to the extent that control devices are necessary to achieve compliance with the limit. As noted above, the purpose of the CAM approach is to monitor to assure that the control devices, once installed or otherwise employed, are properly operated and maintained so that they do not deteriorate to the point where the owner or operator fails to remain in compliance with applicable requirements. Monitoring control device operations on units subject to an emission limitation or standard, regardless of the compliance calculation procedure, is consistent with this purpose.

Letter(s): Clean Air Implementation Project (VI-D-153)

Comment d: A commenter requested that CEMS required in State or NSR permits qualify for this exemption. The commenter stated that the 1996 part 64 Draft only required CEMS to be used for part 64 purposes if required by the Act or State/local law and argued that this should be expanded to include permits so that the CEMS can be used to meet the exemption.

Response: The commenter incorrectly interpreted the rule. Section 64.3(d) indicates that a continuous emission monitoring system (CEMS), continuous opacity monitoring system (COMS) or predictive emission monitoring system (PEMS) that is required pursuant to other authority under the Act

or state or local law must be used to satisfy the requirements of this part. This provision would include any permits issued under the Act or State and local law. Whether such monitoring qualifies for the exemption in § 64.2 depends on whether the monitoring is specified as the compliance method for the applicable requirements.

Letter(s): Colorado Association of Commerce and Industry (VI-D-182)

Comment e: One commenter stated that this exemption should be written so as to exempt subpart C sources that have a continuous compliance determination method rather than just individual emission limits with such methods because subpart C applies on a source wide basis.

Response: The final rule does not include subpart C monitoring requirements. No additional response is necessary.

Letter(s): Colorado Association of Commerce and Industry (VI-D-182)

2.3.2.3: Requests for Clarification

Comment a: A commenter requested clarification of several § 64.2(c) issues. First the commenter wanted to confirm that once it is issued, a part 70 permit which contains a requirement to use CEMS to determine compliance with applicable SIP limits (NO_x RACT plan and sulfur-in-fuel limit), then a CAM plan or QIP would not be necessary for these limits. The commenter also wanted to confirm that a source with limits or standards proposed under sections 111 or 112 of the Act before 1990, but for which its part 70 permit specifies continuous compliance determination methods is exempted from part 64. Finally, this commenter wanted to confirm that it would not need a CAM plan or QIP for opacity if it currently has a SIP opacity limit for which it monitors opacity with a COMS. The commenter noted that it understands that it would still need a CAM plan for particulate matter and that the COMS would be a component in the plan.

One commenter expressed concern that part 64 would require monitoring of the VOC content of solvents or coatings. The commenter stated that supplier certifications and production recordkeeping should be sufficient

for that portion of a sources CAM plan along with a presumption that the monitoring of active controls required in the SIP would be sufficient.

Response: The commenter is correct that emission limitations or standards that have an associated continuous compliance determination method are exempt from part 64, and that the types of limits involved may include applicable SIP limits and pre -1990 NSPS and NESHAP limits. The commenter is also correct that the use of a CEMS (even if not a continuous compliance determination method) that satisfies the performance specifications requirements referenced in the rule will satisfy part 64 without additional documentation (e.g., a CAM plan). The commenter is also correct that use of a COMS is a possible component of the monitoring to provide data for an indicator range appropriate for particulate control performance. The CAM rule would dictate that opacity values that indicate the proper operation of the control device would not necessarily be the same as other applicable opacity limitations. As noted in responses to comments in section 10, the Agency has deleted the requirements associated with a QIP; this possible enforcement response remains as an option for the permitting authority to use as needed.

The commenter is also correct that an emission unit for which opacity is regulated as a surrogate for particulate matter and which is subject to continuous opacity monitoring would also satisfy monitoring requirements under the CAM rule under the provisions that require the use of CEMS where required by underlying rules.

With respect to the VOC content issues, the exemption in § 64.2(b) states explicitly that monitoring of VOC content would not be required even if monitoring of the control device is required under part 64. In that case, any existing monitoring could be used in part to justify the use of the existing monitoring to satisfy part 64, but no presumptive acceptability would apply.

Letter(s): Can Manufacturers Institute (VI-D-181); Niagara Mohawk (VI-D-168)

Section 2.3.3: Municipal Utilities Exemption

2.3.3.1: General Comments/Scope of Exemption

Comment a: A few commenters offered general support for the § 64.2(c)(2) exemption for small municipal units. A commenter explained that it supports EPA's acknowledgment that it is appropriate to exempt emissions units that have high potential to emit but small actual emissions.

Response: No additional response is necessary.

Letter(s): American Petroleum Institute (VI-D-146); NESCAUM (VI-D-192); Metropolitan Council (VI-D-214)

Comment b: One commenter opposed providing an exemption that applies only to electrical utilities. The commenter asserted that by providing such an exemption EPA is supporting some of the worst polluters and restraining competition. The commenter explained that the exemption is provided to power plants used when electrical use peaks, which often occurs because of excessive use of air conditioners in hot weather, while the exemption is not available to other sources that are trying to efficiently manage electrical demand. The commenter concluded by stating that significant pollution and global warming are the result of coal-based electricity generation and transmission losses.

Response: The subject municipally-owned units have historically low usage rates, but, because of their nature, owners or operators cannot accept enforceable restrictions on the operation of these units for any particular year without violating their contractual obligations. Thus, these units usually have extremely high potential to emit values in comparison to actual emissions. Further, the final rule includes a requirement for documentation showing that the unit is exempt from all of the monitoring requirements in 40 CFR part 75, and showing that the emissions unit is operated only to provide electricity during peaking hours or emergencies. This documentation requirement will ensure that the exemption is properly applied. Based on these considerations, the Agency therefore believes that a limited exemption from the monitoring requirements in part 64 for these units is appropriate. The commenter does not address the need for monitoring at these units and instead questions the exemption from CAM monitoring based on considerations (e.g., purported energy inefficiency of these units) not pertinent to enhanced monitoring or compliance certification.

Letter(s): LaClede Gas Company (VI-D-198)

2.3.3.2: Request Exemption for Similar Units

Comment a: Many commenters argued that other emissions units with large potential to emit and small actual emissions should be exempted from CAM requirements. The U.S. Small Business Administration submitted for discussion at the September 10, 1996 meeting a proposal (SBA proposal) to exclude entirely from CAM sources whose actual emissions are less than 50 percent of the major source threshold, where the owner/operator can establish that this represents true emissions averaged over an appropriate operational period such as one year. The SBA proposal stated that this would eliminate possibly thousands of sources that do not need to be covered by CAM since the reasonable assurance can be obtained through the facilities' own records. A number of commenters specifically expressed their support for the SBA proposal and others stated generally that they were in favor of such an exemption. One commenter stated that any unit that can demonstrate a history of limited usage and an expectation of continued limited usage should also be exempted. A local agency commenter noted that many sources will accept operational restrictions to avoid the CAM requirements. One commenter supported the addition of an exemption threshold below which a pollutant-specific emissions unit should not be subject to CAM because the costs of complying with CAM would outweigh the environmental benefits of monitoring those units. This commenter specifically supported the SBA approach, and noted that this approach was supported by statements in the 1993 RIA for the EM proposal, 58 FR 54662-54663, and EPA's analysis of part 70 periodic monitoring requirements in Section II.C.2.(d) of White Paper Number 2, 3/5/96. Another commenter proposed adding a new section the rule to exempt from CAM pollutant-specific emissions units that operate with actual emissions of less than 20 percent of the major source definition.

Several commenters stated that the municipal utility exemption should be extended to similar units, such as peak shaving units, emergency fire systems, emergency electrical generators and other emergency utility systems (e.g., air, water). Some commenters argued that these units meet the same criteria as back-up municipal utility units. A few commenters supported extension of the municipal utility exemption to

back-up units not owned by utilities. Natural gas industry commenters supported the extension of the exemption to include all emergency and back-up units, including emergency back-up and seasonal turbines or reciprocating engines. Other commenters recommended exempting units that are subject to permit conditions that limit potential to emit or amount of operation (such as emergency standby equipment). One commenter stated that these types of units should at least be subject only to minimal recordkeeping of operating hours or similar customary records under subpart C.

Two commenters discussed particular types of units for which they felt exemption was appropriate. A commenter stated that non-road engines with high potential to emit utilized at oil and gas production facilities should be exempted if their owners and operators can show that actual emissions from these units are less than 50 percent of the amount required to classify the units as major sources. Another commenter added that internal combustion engines operating at such levels should at least be exempt from subpart B. One commenter argued that oil and natural gas batteries which potentially could be classified as major sources should be exempt if they have low actual emissions and do not operate at capacity as a practical matter (i.e. because the amount of product that can be produced is limited by the tanks' underground reservoirs).

Utility industry commenters were concerned that the exemption is too narrow to be of use to the small utility units to which it is intended to or should apply. They argued that many small utility units specifically exempted from title IV have very small actual emissions, but are not limited to operating during peak power or emergency situations. Moreover, the commenters stated that some of these units may not meet the criteria of average annual emissions of less than 50 percent of the major source threshold. They explained that units in serious nonattainment areas would need average annual emissions of less than 25 tons to qualify. According to the commenters the cost of additional monitoring cannot be justified for these sources. Commenters also noted that these units generally do not have control devices, and therefore they were also concerned that these sources would have to find ways to monitor emissions directly instead of monitoring control parameters.

One of the commenters argued that application of the 50 percent of major source threshold cap will add nothing to existing title V monitoring and recordkeeping requirements, but will ensnarl additional municipal units if emissions limits and major source thresholds are changed in the future pursuant to new regulations (like those applicable to NO_x). This commenter also stated that the 50 percent threshold is inconsistent with paragraph (c) of subpart C which most municipal peaking units would be able to meet. According to the commenter, where a municipal unit exceeds the CAM 50 percent threshold but not its major source threshold, the unit will essentially be required to complete CAM plan paperwork that is redundant with its title V permit.

A commenter objected to forcing small utility units to demonstrate that the level of a unit's operation is tied to contractual obligations to power supply customers arguing that for many municipal systems, such contracts have been precluded by the anti-competitive actions of larger, investor-owned utility competitors. The commenter stated that in some cases in Ohio, large investor-owned utilities have attempted to thwart the formation of contracts for the use of municipal peak-shaving units because ensuing power outages and higher utility bills work to the competitive advantage of these larger utilities.

Two commenters recommended broadening the exemption to units of 25 MWe or less. A commenter who argued in favor of exempting all such publicly owned generating units explained that there is no benefit associated with applying CAM to these units which emit de minimis levels of pollutants, and that a broader exemption would reduce the burden to permitting authorities as well as to these sources. The commenter emphasized the competitive effect of these units on the utility industry which benefits all consumers irrespective of their electric power provider and argued that, therefore, their continued ability to operate is important and has historically been recognized by Congress. The commenter also stated that additional analysis and recordkeeping and the potential for permit renegotiation imposes burdens on the communities that own these units and may constitute an unfunded mandate.

This commenter also argued that if EPA does not exempt units of 25 MWe or less, the actual emissions limits for exempted units should be increased from 50 percent to 100 percent of the major source threshold, and the restrictions on type of operation should be relaxed so that other

than emergency and peaking operation is included. According to this commenter these small units are generally operated for peak or emergency situations, but cannot be restricted to operation only during these times since these units must be available to operate for other reasons including testing, and backstanding non-firm power purchase transactions. The commenter stated that sources would be responsible for satisfying the state regulatory authority that actual emissions are below this level and added that EPA's concern that calculations used to estimate actual emissions are not reliable or accurate could be satisfied by using a threshold only slightly lower than the major source threshold such as 90 percent.

A second commenter argued that an exemption for all simple combustion turbines and units with generators in this capacity range is consistent with the Acid Rain Program, and stated that a requirement that emissions, based on a rolling 36-month period, must be less than 50 percent of the applicable major source threshold will ensure that these units' emissions are not significant. The commenter also stated that such an exemption was included in the 1995 draft and should be reestablished in the final CAM rule because the narrow exemption in the 1996 draft is too complex and would be difficult to administer. The commenter argued that there will be questions under the current version about varying levels of municipal ownership and what situations qualify as periods of peak electrical demand or emergencies. Finally, according to this commenter, EPA's statement that its current exemption is appropriate because such units usually have low emissions applies equally to the other small units exempted in the 1995 draft.

Response: EPA disagrees with the concept of using actual emissions as the overall basis for part 64 applicability or as the basis for expanding significantly the municipal utility exemption. First, actual emissions can vary with changes in production. More importantly, for units with control devices, calculations of actual emissions necessarily rely on assumptions about on-going performance that part 64 is intended to verify. Finally, because the types of sources to which commenters referred are unlikely to meet the control device applicability criterion of the final rule, the Agency feels even more strongly that the final rule will not subject small units to inappropriate monitoring. The Agency notes, however, that such units will remain subject to the monitoring requirements in part 70, and may have to adopt new or modified monitoring to comply with those requirements,

even though part 64 does not apply. The exemption for small backup municipal utility units is not an exemption based generally on the theory that monitoring is unnecessary for those units with actual emissions that fall below the major source threshold. Rather, there are additional factors at play. First, contractual obligations put small municipal backup units in a position where they cannot agree to the type of binding restrictions that would eliminate them from status as a "major source" even though such restrictions would otherwise be acceptable. Further, municipal units are generally operated by small local governments and thus imposing monitoring requirements raises the same types of concerns reflected in the Regulatory Flexibility Act and the Unfunded Mandates Reform Act. Finally, EPA believes there are relatively few units that will qualify for this exemption. This conclusion was confirmed by the comments of a utility group that stated that "these small utility units generally do not have active control devices." UARG, p. 5. As such these units would not be subject to CAM in the first instance. When these factors are considered in the context of historical data showing low actual emissions, EPA believes an exemption is justified. Thus, EPA would emphasize that this exemption is based on the unique circumstances surrounding the units involved and the relatively small number of such units.

Letter(s): American Automobile Manufacturers Association (VI-D-157); American Gas Association (VI-D-154); American Municipal Power-Ohio (VI-D-159); American Petroleum Institute (VI-D-146); American Public Power Association (VI-D-158 and 264); California Association of Sanitation Agencies (VI-D-206); Chemical Manufacturers Association (VI-D-152); Cinergy Corp. (VI-D-141); Class of '85 Regulatory Response Group (VI-D-161); Coastal Corporation (VI-D-123); Colorado Association of Commerce and Industry (VI-D-182); Columbia Gas System Service Corporation (VI-D-175); County Sanitation Districts of Orange County, California (VI-D-231); Electronic Industries Association (VI-D-137); Eli Lilly Company (VI-D-124); Engine Manufacturers Association (VI-D-117); Enron Operations Corp. (VI-D-235); Exxon Chemical Americas (VI-D-128); General Electric Company (VI-D-156); Houston Lighting & Power Company (VI-D-228); LaClede Gas Company (VI-D-198); Niagara Mohawk (VI-D-168); Ohio Chamber of Commerce, et al (VI-D-160); Pennzoil Company (VI-D-133); Rubber Manufacturers Association (VI-D-149); South Dakota Department of Environment and Natural Resources (VI-D-223); Southwestern Public Service Company (VI-D-224); State of Tennessee Department of Environment and Conservation

(VI-D-234); Tennessee Valley Authority (VI-D-162); Texas Natural Resource Conservation Commission (VI-D-189); Total Petroleum, Inc. (VI-D-190); Tri-TAC (VI-D-225); U.S. Small Business Administration (VI-D-239); Utility Air Regulatory Group (VI-D-140)

2.3.3.3: Objects to Documentation Requirements

Comment a: One state agency commenter argued that the documentation requirements of the small municipal utility exemption may cause competitive market problems. The commenter stated that many state agencies may be unable to maintain confidentiality for information submitted to comply with the requirement of documenting historical and contractual information which shows that a unit is eligible for the small municipal utility exemption.

Response: The Agency disagrees. Under § 70.4(b)(3)(viii) each permitting authority is required to demonstrate the legal authority to maintain information as confidential if entitled to such protection under section 114(c) of the Act. Although historical emissions data is not entitled to such protection, certain contractual provisions may be.

Letter(s): Texas Natural Resource Conservation Committee (VI-D-189)

2.3.3.4: Requests for Clarification

Comment a: A commenter asked that the language of the exemption be changed to refer to "annual" instead of "annualized" emissions. The commenter assumed that EPA intended to refer to actual "annual" emissions and not the amount that would have been emitted if emissions at the actual rate were "annualized" over a full year of operation.

Response: This edit has been included.

Letter(s): Utility Air Regulatory Group (VI-D-140)

Comment b: One commenter requested that the Agency clarify whether sources can toggle between major source and non-major source from year to year

based on the 3 year emissions average. This commenter argued that forcing these small, seldom used sources to develop a CAM plan for a short time frame would not seem to be in keeping with the intent of the proposal.

Response: The Agency intends that an exemption such as the one for municipal utilities apply for the duration of the permit term. The exemption would be reviewed only upon the pollutant-specific emission unit undergoing a significant process modification or upon another significant permit revision as required under part 70.

Letter(s): Cinergy Corp. (VI-D-141)

Section 2.3.4: Other Exemptions

2.3.4.1: General Site/Significance Based Exemptions

Comment a: Some commenters stated that CAM should explicitly exempt sources/units that are exempt from title V regulation. One commenter explained that sources below the title V applicability threshold should not be burdened with CAM monitoring since their emissions are relatively insignificant, and recommended that EPA specifically state that the CAM rule does not apply to non-major sources which may be required to obtain a title V permit solely because they are subject to a NSPS or NESHAP regulation. As examples of non-major sources subject to pre-1990 NSPS or NESHAP requirements, the commenter discussed a source with a small boiler burning natural gas (triggering 40 CFR 60, subpart Dc) or a laboratory licensed by the Nuclear Regulatory Commission and using radio nuclides for tracing studies (triggering 40 CFR 61, subpart I). The commenter stated that these regulations contain existing monitoring requirements which are sufficient to assess compliance with the applicable emissions limitations or standards and requested that EPA establish that all non-major sources are exempt from CAM requirements.

Response: The final rule clearly states that the requirements of part 64 apply to a pollutant-specific emissions unit at a major source that is required to obtain a part 70 or 71 permit. No additional rule language is required.

Letter(s): Association of Battery Recyclers (VI-D-155); Ohio Chamber of Commerce, et al (VI-D-160); Pharmaceutical Research and Manufacturers of America (VI-D-217)

Comment b: Several commenters argued that the final rule should have a simple, bright-line exemption based on potential to emit or actual emissions. Two commenters stated that EPA could build on the current January 1995 PTE guidance and exempt units with actual emissions less than 50 percent of the major source threshold. Other commenters noted that such an approach could be used or, alternatively, EPA could exempt units with PTE (considering controls) less than the major source threshold (or some percentage of the major source threshold) which would simplify the rule and assure that environmentally insignificant units are not subject to CAM.

Response: As noted above, the Agency disagrees that the proposed revisions would either significantly simplify the applicability determination or appropriately target significant emissions units with control devices. (See also responses to comments in section 2.1.2 (Part III).)

Letter(s): American Automobile Manufacturers Association (VI-D-157); Electronic Industries Association (VI-D-137); General Electric Company (VI-D-156); National Environmental Development Association (VI-D-169); The Society of the Plastics Industry, Inc. (VI-D-148)

Comment c: A commenter argued that CAM should not apply to pollutants for which the source is not major. For instance, the commenter pointed out that a source may be required to obtain a title V permit because it is major for HAPs. The commenter stated that although CAM would not apply to the HAPs if they were not subject to an emission limit, the source may have VOC emissions with emission limits. The commenter concluded that CAM should not apply if the VOC emissions are below the major source threshold.

Response: The 1993 proposed rule contained this type of limitation. However, as explained above, EPA believes that the focus of the rule on the maximum capacity to emit of units without considering the effectiveness of a control device is an appropriate screening tool to determine which units should

be monitored under part 64. This reasoning applies whether or not the source is "major" considering such controls for each pollutant it emits. In addition, as some commenters pointed out in response to the proposed rule, the Agency typically does not focus on only the major pollutants even where applicability of a program is focused solely on whether a source is a major source. For example, under the PSD program, if a new source is "major" for one pollutant, it must obtain a PSD permit requiring use of control equipment not only for that pollutant but all other pollutants that it would emit in amounts that are greater than de minimis levels. Finally, EPA believes it would be irrational to continue to focus solely on the pollutants for which a source is major when the Agency is focusing on units that have installed control devices. For instance, a source could be "major" for NO_x with no NO_x control devices (and even no NO_x requirements in an attainment area) but have a unit with the potential to emit 20 tons of particulate matter after considering the effectiveness of a control device that has a rated removal efficiency of 99.9 percent. The potential to emit from this particular emission unit for particulate matter would be less than the major source threshold of 100 tons/year; however, the maximum capacity to emit particulate matter without considering the control device would be 20,000 tons/year, which is far greater than the 100 tons/year major source threshold. Small decreases in efficiency of that control device could lead to actual emission increases significantly above the applicable emission limitations or standard and the major source threshold. Thus, while the source in this example may not have the potential to emit particulate matter (taking into account the control device) in amounts sufficient for the source to be classified as a major source for particulate matter, the pollutant-specific emissions unit for particulate matter, not for NO_x, in this example is clearly one which the Agency believes should be subject to part 64.

Letter(s): American Automobile Manufacturers Association (VI-D-157)

2.3.4.2: Exemption for SIP Rules

Comment a: A number of commenters argued that EPA should exempt various SIP rules from part 64. One commenter stated generally that EPA should exempt from part 64 all pollutant-specific emissions units currently subject to monitoring required by a federal rule or a state rule approved as part of a SIP since existing monitoring required for these units should satisfy

CAM. Several commenters argued specifically that SIP rules approved after 1990 should be exempted since EPA has oversight for the SIP process and these requirements should reflect EPA's monitoring philosophy. The commenters stated that the reasons for exempting federal limitations or standards proposed after November 15, 1990 apply to these rules as well. The commenters added that if EPA identifies negative impacts on SIP emission reduction credits because a post 1990 SIP rule has been exempted, then the permitting authority should be allowed to conduct a CAM review of that particular rule in support of reduction credits. Another commenter specified that SIP provisions applicable to sources in attainment areas should be exempt from CAM because in attainment areas, State regulatory programs are already meeting air quality goals.

Response: The Agency agrees that monitoring in many SIP rules, including some post-1990 SIP rules, can be used to satisfy part 64 requirements and acknowledges that such requirements may be used to satisfy the documentation requirements of the rule. On the other hand, the Agency does not agree that all existing monitoring requirements, whether prepared before or after 1990, completely satisfy the part 64 criteria and believes that a review of such requirements on a case-by-case basis is appropriate. While certainly subject to some EPA oversight, State implementation plans and other rules developed outside the MACT and NSPS programs have not been governed by monitoring criteria of the type described in the CAM rule.

Letter(s): Coastal Corporation (VI-D-123); Eli Lilly Company (VI-D-124); General Electric Company (VI-D-156); Kennecott Corporation (VI-D-119); Ohio Chamber of Commerce, et al (VI-D-160); Pharmaceutical Research and Manufacturers of America (VI-D-217); Texas Natural Resource Conservation Committee (VI-D-189); Texas Title V Planning Committee (VI-D-188); Utility Air Regulatory Group (VI-D-140); Virginia Power (VI-D-226)

2.3.4.3: Exemption for NSR Sources

Comment a: Two commenters requested that EPA exempt state minor NSR sources from CAM or provide flexible options to assure NSR monitoring provides for a reasonable assurance of compliance. They argued that state minor

NSR programs already include appropriate requirements for monitoring to assure compliance and that if necessary, flexible options like a programmatic approach or guidance documents could provide a reasonable assurance of compliance. Another commenter added that the proposed revisions to part 70 recognize that state minor NSR permit terms are less environmentally significant and therefore CAM should not apply. One commenter suggested revising the definition of emission limitation or standard to specifically exclude minor NSR requirements and stated that EPA may not have the legal authority to include CAM for minor NSR requirements. A commenter explained that the statutory authorization for compliance monitoring covers title V major source operating permits and not NSR or minor sources and proposed adding an exemption for emission limitations developed under state minor NSR programs. A commenter who also supported exemption of minor NSR requested clarification on applicability for synthetic minors. Several commenters stated that at a minimum, EPA should exempt post November 15, 1990 minor NSR requirements.

A number of commenters asked that EPA clarify that the major NSR program (Prevention of Significant Deterioration and Non-attainment permits) satisfies CAM. One commenter reasoned that since EPA has oversight authority for the major NSR program and has already reviewed all permits under this program, these permits should reflect EPA's monitoring philosophy. Other commenters argued that an exemption should at least apply to major NSR permits approved after November 15, 1990.

One commenter stated that any source that has been through new source review in the last ten years should be exempt.

Response: As noted above, the Agency does not believe that all existing monitoring requirements meet part 64 criteria including those developed under major NSR, minor NSR, or other programs. That any such permit provision was completed after November 1990 does not insure that monitoring sufficient to conform with part 64 was applied. The guidelines for determining appropriate monitoring to be applied in reviewing such rules has not included the level of detail specified in the CAM rule nor, until recently, for periodic monitoring as outlined for part 70. To the extent that emissions units at major sources are subject to title V permitting requirements, the Agency believes it is appropriate to require a review and, if necessary,

improvement of existing monitoring to comply with part 64 requirements rather than a broad, poorly supported exemption.

Letter(s): American Automobile Manufacturers Association (VI-D-157); Coalition for Clean Air Implementation (VI-D-164); Coastal Corporation (VI-D-123); Electronic Industries Association (VI-D-137); General Electric Company (VI-D-156); Kennecott Corporation (VI-D-119); National Environmental Development Association (VI-D-169); NorAm Gas Transmission Company (VI-D-142); Ohio Chamber of Commerce, et al (VI-D-160); Pennzoil Company (VI-D-133); PPG Industries, Inc. (VI-D-136); Texas Natural Resource Conservation Committee (VI-D-189); The Society of the Plastics Industry, Inc. (VI-D-148); Utility Air Regulatory Group (VI-D-140); Virginia Power (VI-D-226)

2.3.4.4 Exemptions for Insignificant Activities

Comment a: Commenters argued that at a minimum, EPA should exclude from CAM insignificant or trivial sources. One commenter stated generally that units on a state's insignificant activities list should be exempt. Another commenter suggested that a 10 ton per year cutoff would be consistent with the "small source" exclusion concept of White Paper I. A few commenters noted that the costs associated with monitoring insignificant or trivial sources far outweigh any benefits. Two of the commenters also stated that the need for this exemption appears especially necessary because § 64.9(c)(2)(iii) of the 1996 part 64 Draft appeared to require a second determination that monitoring of insignificant activities is not necessary even after the permitting authority has already identified certain classes of activities to be insignificant. A commenter specified that the language stating that "for less significant emission units, no monitoring may be necessary" is not sufficient. In particular, the commenter recommended exempting non-major equipment and non-major portable equipment, including small ICEs. Other commenters noted that EPA should clarify what is intended and specifically exempt insignificant sources that are exempt under applicable title V programs so they are not brought back into title V.

A few commenters requested that insignificant activities (as defined in state part 70 permit programs) should be expressly exempted from the CAM rule rather than providing states with the authority to impose CAM

requirements on these activities. They argued that EPA's July 10, 1995 White Paper on Streamlined Development of part 70 Permit Applications indicated that EPA did not intend insignificant activities to be subject to the full range of part 70 permit requirements, including the associated CAM requirements. Another commenter cited a similar statement in Section II.C.2.(d) of the March 5, 1996 White Paper Number 2.

Response: As noted above, EPA disagrees with the concept of using actual emissions as the overall basis for part 64 applicability. To the extent that major sources are required to obtain title V permits, the Agency believes that pollutant-specific emission units with control devices at such major sources and which fall above the size cut-off specified in the rule should be subject to monitoring in order to verify compliance with applicable emission limitations or standards. Because the types of emissions units to which commenters refer are unlikely to meet the control device applicability criterion of the final rule, the Agency feels even more strongly that the final rule will not subject small units to inappropriate monitoring.

Letter(s): American Automobile Manufacturers Association (VI-D-157); Association of Battery Recyclers (VI-D-155); California Association of Sanitation Agencies (VI-D-206); Chemical Manufacturers Association (VI-D-152); County Sanitation Districts of Los Angeles County (VI-D-232); Electronic Industries Association (VI-D37); Eli Lilly Company (VI-D-124); General Electric Company (VI-D-156); Ohio Chamber of Commerce, et al (VI-D-160); Pharmaceutical Research and Manufacturers of America (VI-D-217); Southern Company Services (VI-D-171); The Society of the Plastics Industry, Inc. (VI-D-148); Tri-TAC (VI-D-225)

2.3.4.5: SBA Proposal

Comment a: One commenter proposed that states be permitted to approve the emissions estimate methodology and recordkeeping of sources with actual emissions of 50-90 percent of the major source threshold so that such sources could be permanently exempted from CAM. The commenter noted that this would allow states to conserve resources. Another commenter expressed its support for such an exemption.

Response: See responses to comments in section 2.1.2 and 2.3.4.4 (Part III).

Letter(s): The Society of the Plastics Industry, Inc. (VI-D-148); US Small Business Administration (VI-D-239)

2.3.4.6 Miscellaneous Requests for Exemption

Comment a: Many commenters argued that EPA should exempt other specific categories of applicable requirements that do not need CAM. One commenter recommended exempting applicable requirements derived from the accidental release provisions of section 112(r) of the Clean Air Act, requirements applicable to equipment that is permitted for operations less than 500 hours per year, and State exemption and registration requirements. Other commenters also supported exempting state exemption and registration requirements and two commenters suggested that the definition of emission limitation or standard specifically exclude these types of requirements.

A few commenters argued that EPA should establish that emissions units covered by post-November 15, 1990 MACT, RACT, and CTG regulations are exempt from CAM because these regulations clearly contain continuous compliance requirements. They stated that the CAM rulemaking should not be used to "fix" monitoring shortcomings in existing regulations such as MACT, RACT, and CTG regulations or to impose duplicative and unnecessary additional monitoring requirements on sources subject to these rules.

Two commenters argued that all NESHAP and NSPS requirements should be exempt unless EPA specifically determines that the existing monitoring in such standards is deficient. They recommended that where deficiencies are found, EPA should amend the underlying standard. Other commenters specified exempting specific subparts such as part 60 subpart MM, and the requirements for phosphogypsum stacks under part 61, subpart R (incorporated comments on this issue made in response to the EM proposal).

One commenter argued that EPA should treat post-1990 compliance monitoring and certification SIP guidance and reasonably related parameter monitoring as equivalent to federal rules proposed after 1990. The commenter was particularly concerned with recent Capture Efficiency resolutions.

Response: The Agency disagrees that post-November 15, 1990 RACT and CTG regulations should be exempt from CAM because these regulations do not necessarily contain continuous compliance monitoring requirements. The same applies to pre-November 1990 NSPS and NESHAP rules.

Letter(s): American Automobile Manufacturers Association (VI-D-157); Can Manufacturers Institute (VI-D-181); Chemical Manufacturers Association (VI-D-152); Electronic Industries Association (VI-D-137); General Electric Company (VI-D-156); Ohio Chamber of Commerce, et al (VI-D-160); Pharmaceutical Research and Manufacturers of America (VI-D-217); The Fertilizer Institute (VI-D-145)

Comment b: A state agency suggested that major units that can meet CAM data collection requirements with ordinary records of process hours of operation or other operational data should be exempt from CAM monitoring requirements.

One commenter argued that generic state requirements, such as generic process weight or opacity standards should be exempt. The commenter was particularly concerned about generic opacity standards because EPA's draft rule and preamble suggest that opacity should be considered a surrogate for PM-10 in all cases and because it is unclear how a source could be a major source for opacity when there is no major source threshold for opacity. Thus, according to this commenter, the rule should at least provide that a generic opacity SIP limit should not be subject to CAM. The commenter added that this exemption is warranted in particular because such limits are focused on avoiding nuisances, not assuring attainment of the NAAQS.

One commenter recommended exempting requirements in title V general permits which EPA already should have reviewed to determine CAM acceptability.

A commenter argued that State-only requirements that are not rule driven (such as requirements to conduct testing for emission inventory purposes) should be explicitly exempt.

Commenters urged EPA to exempt certain types of emission limitations or standards. A commenter stated that standards that consist solely of

recordkeeping and reporting requirements should be exempt from CAM. Another commenter argued that non-numeric applicable requirements, such as work practice standards, should be exempt. Another commenter agreed on the grounds that no form of monitoring is practical for standards such as rules covering asbestos management and removal, petroleum sources, fugitive dust, and degreasing operations. Finally, a commenter argued that nothing is gained by applying CAM to design requirements or inspection schedules that are already enforceable as part of the standard and that case-by-case determination that CAM is not necessary should not be required.

A commenter supported exemptions for fugitive VOC LDAR programs, cases where regulations specifically exempt certain control devices from monitoring (such as boilers and process heaters of greater than 44 MW or situations where a vent stream is introduced as primary fuel), and units permitted for emission of 1 ton per year or less.

One commenter recommended that EPA clarify that the risk management plan is not subject to CAM requirements because it is not an emission standard.

Response: The final CAM rule specifically applies to pollutant-specific emission units that use control devices to achieve the applicable emission limitation or standard. The types of emission limits described by the commenters are unlikely to be associated with emissions units affected by the rule. If units with control devices are subject to such limits, then the form of the emission limit is immaterial to the purpose of part 64 which is to provide a reasonable assurance of compliance by documenting that the control device is operated and maintained properly.

Letter(s): ASARCO Incorporated (VI-D-187); Eli Lilly Company (VI-D-124); Exxon Chemical Americas (VI-D-128); General Electric Company (VI-D-156); Louisiana Mid-Continent Oil and Gas Association (VI-D-184); National Environmental Development Association (VI-D-169); State of Tennessee Department of Environment and Conservation (VI-D-234); Texas Chemical Council (VI-D-236)

Comment c: A local permitting authority argued that established emission factors should be exempt from CAM. The commenter specified emission factors

used for emissions determinations, such as those from AP-42 and added that the exemption should include coating materials containing VOC compounds whose content is specified by the manufacturer. According to the commenter, this exemption is appropriate because the applicable rule will establish appropriate initial compliance testing methods, and MSDS or equivalent manufacturer information should ensure continued compliance with emission standards.

Response: See response to Comment c in section 2.3.2.2 (Part III).

Letter(s): South Coast Air Quality Management District (VI-D-233)

Comment d: One commenter stated that CAM should not apply to emissions units in remote locations with little or no residential population. The commenter was particularly concerned with emissions units at oil and gas production facilities which are remote according to documentation submitted to the permitting authority.

Response: The Agency believes monitoring decisions should be made on the same basis and should be focused on determining compliance with applicable emission limitations or standards. If the commenter is concerned with the stringency of a particular emission standard, that concern should be raised in regard to the standard and not as grounds for making exceptions to general monitoring requirements.

Letter(s): Texaco Environment Health and Safety (VI-D-199)

Comment e: A commenter recommended exempting capture equipment used to vent emissions from a source to a control device used to control nuisance air pollutants, such as hydrogen sulfide, that are not regulated under part 64. The commenter explained that odor control devices do not remove federally regulated criteria or hazardous air pollutants.

Response: The Agency disagrees that capture systems be exempt from monitoring under the CAM rule if there is an applicable emission limitation or standard to control a regulated air pollutant. If a pollutant is subject to a state-only requirement related to odor or nuisance concerns, that state-

only requirement is not an "emission limitation or standard" as defined in part 64.

Letter(s): County Sanitation Districts of Orange County, California (VI-D-231)

Comment f: A few commenters argued that research and development (R&D) facilities and operations should be included in the list of exemptions in the rule. One commenter stated that applying CAM to these facilities would be very difficult because of frequent operational changes and would provide little benefit due to the generally low, variable level of emissions at these units. Pharmaceutical industry commenters explained that they depend on research and development to support existing products and to produce new and better pharmaceuticals. They argued that R&D facilities are inherently low-emitters and account for only a small fraction of the regulated air pollutants emitted by the pharmaceutical industry and that, therefore, the resulting costs, administrative burdens, and delays for R&D facilities to comply with CAM would not be justified. One of the commenters concluded that subjecting R&D facilities to CAM would result in adverse economic impact on the pharmaceutical industry and the U.S. economy.

Response: The Agency believes that the commenters concerns about research and development facilities being adversely affected by the CAM rule are generally unjustified. For such a facility to be subject to the CAM rule, the facility must be a major source and subject to an applicable emission limit, the precontrol potential to emit for the unit in question at the facility must be greater than the major source threshold, and the emissions must be routed to a control device required to reduce emissions to comply with an applicable emission limitation or standard. The Agency believes that few, if any, such situations will exist for research and development facilities. If such situations do exist, the Agency believes that monitoring of the control device as defined by the CAM rule would be appropriate.

Letter(s): Bristol-Myers Squibb Company (VI-D-204); General Electric Company (VI-D-156); Merck & Co., Inc. (VI-D-212); National Environmental Development Association (VI-D-169); NYCOMED, Inc. (VI-D-216); Ohio Chamber of Commerce, et al (VI-D-160); Pfizer, Inc. (VI-D-218); Pharmaceutical Research and Manufacturers of America (VI-D-217); Wyeth Ayerst (VI-D-213)

Comment g: One commenter stated that EPA should exempt boilers from CAM so that it does not duplicate the effort currently being undertaken to develop the boiler MACT rule by the year 2000. This commenter suggested that if CAM is to cover boilers good and consistent maintenance practices should be used to document and certify compliance for wood-fired boilers instead of "indicator ranges" and argued that this approach would be consistent with the subpart C approach for units without existing monitoring. According to the commenter, the available parameters for wood-fired boilers vary so much that any indicator range will be so broad as to be meaningless.

Response: The Agency believes that the commenters concerns about the applicability of the CAM rule are unfounded on two points. First, as noted above, the Agency disagrees that implementation of part 64, if applicable, or other existing monitoring requirements (e.g., part 70) should be delayed until new regulations apply. Owners of emissions units with existing emissions limitations or standards are subject to compliance certification requirements for those limitations or standards. Second, the CAM rule applies to pollutant-specific emission units that use control devices to comply with applicable limitations. Part 64 is intended to define minimum monitoring requirements for evaluating the operation of the control device. The variability of the operational parameters of a wood-fired boiler would be secondary to monitoring of the control device.

Letter(s): American Furniture Manufacturers Association (VI-D-203)

Comment h: A commenter argued that EPA should exempt natural gas-fueled engines below a certain size or allow such engines to meet less strenuous requirements to satisfy CAM. The commenter proposed that an exemption for engines under 50 hp, if subpart B applicability provisions are not modified to reflect a source's actual yearly operating hours, would be appropriate because there are many such engines which operate only seasonally, such engines are not a significant source of air pollutants, and CAM already provides a similar exemption for municipal electrical utilities. In the alternative, the commenter provided a list of reduced requirements which such engines would have to meet to satisfy CAM.

Response: As noted earlier, part 64 applicability requires the use of a control device which the particular units described by the commenter are unlikely to have. It is unlikely that part 64 would apply to such units; however, part 70 monitoring requirements apply, as necessary.

Letter(s): LaClede Gas Company (VI-D-198)

Section 2.4: Miscellaneous Applicability Issues

Comment a: A commenter requested that EPA confirm that the applicability provisions of the rule, including exemptions, are self-implementing. This commenter noted that sources should not have to identify, in a CAM plan or permit application, pollutant-specific emissions units to which CAM does not apply since the discussion accompanying the 1996 part 64 Draft recognized that unit by unit negative declarations could be highly burdensome.

Response: The Agency agrees and part 64 does not require that owners or operators justify in a permit application why part 64 is not applicable or that owners or operators apply for exemptions. However, the Agency notes that the permitting authority can request further explanation as to how a source owner or operator determined that part 64 did or did not apply for any pollutant-specific emissions unit for which there may be an issue about applicability. In addition, an owner or operator that wishes to take advantage of the exemption for certain municipally-owned utility units will have to provide the documentation required to satisfy that exemption.

Letter(s): Chemical Manufacturers Association (VI-D-152); National Environmental Development Association (VI-D-169)

Comment b: One commenter recommended that the rule list which requirements are specifically included, rather than requirements that are specifically excluded, in order to narrow applicability to truly significant concerns. The commenter stated that as drafted the rule will require millions of case by case determinations of appropriate monitoring for title V facilities. Although the commenter argued that a programmatic approach would be the most appropriate approach, the commenter suggested narrowing the rule in this way as an alternative. Other commenters stated that this

approach would clarify certain concerns such as whether hydrogen sulfide is exempt. These commenters stated that this pollutant should not be covered, because it is not a federal regulated pollutant under title III or section 112(r).

Response: The Agency believes that the applicability requirements in part 64 adequately narrow the domain of pollutant-specific emission units so as to avoid over burdening source owners and permitting authorities with applicability determinations. The Agency also disagrees with the commenters on the universe of units potentially subject to part 64. As noted earlier, the Agency estimates that about 27,000 pollutant-specific emission units will be incrementally affected by part 64, not the millions that the commenter suggests. With respect to pollutants that are not federally regulated air pollutants, the rule does not apply to State-only requirements, but rather only to emission limitations or standards that qualify as applicable requirements, as defined by part 70.

Letter(s): California Association of Sanitation Agencies (VI-D-206); County Sanitation Districts of Orange County, California (VI-D-231); General Electric Company (VI-D-156); Tri-TAC (VI-D-225)

Comment c: Two commenters argued that the rule should allow for States to implement the exemption provisions by rule. One commenter stated generally that permitting authorities should be able to use the SIP process to classify other applicable requirements or units as exempt. Another commenter expressed concern that, as drafted, the rule only allowed states to exempt certain rules from CAM through case by case decision making, which would waste resources relative to achieving the same result through a general rule. The commenter added that states should have the ability to revise existing SIP rules to achieve the same result.

Response: The Agency does not agree that states that choose to use a programmatic approach to determining monitoring requirements should be allowed to apply exemption criteria different than apply generally in part 64. As noted above, the monitoring criteria defined in part 64 are intended as basic to a program of monitoring to ascertain and certify compliance with applicable emission limitations and standards. Allowing states to apply additional exemptions beyond those in part 64 would result in unequal and insufficient application of monitoring.

Letter(s): Electronic Industries Association (VI-D-137); General Electric Company (VI-D-156)

Comment d: One commenter agreed with distinguishing between control device units and uncontrolled units but believed that the subpart C requirements must be narrowed to make the distinction work as intended. The commenter suggested that the subpart C requirements should be focused on existing monitoring or recordkeeping if no existing monitoring exists.

Response: Subpart C has been deleted from the final rule and no further response is necessary.

Letter(s): Rubber Manufacturers Association (VI-D-149)

Comment e: A commenter recommended that CAM not apply to fugitive emission points unless the state determines that emissions are significant. For instance, the commenter pointed out that many sources in the plastics industry may be subject to VOC RACT requirements that require an overall percent reduction for the entire facility and that monitoring each individual fugitive emission point to assure compliance with this requirement would be extraordinarily difficult and burdensome.

Response: The CAM rule applies to pollutant-specific emissions units with control devices. To the extent that fugitive emissions are routed to a control device in order to comply with an applicable emission limitation or standard, part 64 may or may not apply.

Letter(s): The Society of the Plastics Industry, Inc. (VI-D-148)

Comment f: One commenter argued that given the wide use of flares as a control device, EPA should specifically address CAM for flares. The commenter stated that flares cannot truly be monitored but seem to fit into the definition of a control device and suggested that EPA exclude flares from subpart B applicability.

Response: The Agency agrees that for certain types of existing monitoring, the justification required by part 64 can presumptively rely on that monitoring

because the Agency has already determined that type of monitoring to be "enhanced." This includes monitoring requirements for flares established in 40 CFR 60.18 (see § 64.4(b)(5) and Section II.D. of the preamble to the final rule).

Letter(s): The Society of the Plastics Industry, Inc. (VI-D-148)

Comment g: A commenter stated generally that the rule should concentrate on technical feasibility and reasonable cost to generate standards used to make applicability determinations.

Response: The Agency disagrees that monitoring feasibility or cost should be considered in determining whether a specific pollutant-specific emissions unit should be subject to the rule.

Letter(s): Wisconsin Electric Power Company (VI-D-130)

Comment h: One commenter stated that the types of data that satisfy part 70 for permit applications should be sufficient for CAM. For example, the commenter reasoned that unnecessary regulatory burdens would be minimized by providing that detailed emissions information is not needed except where emissions are near a critical threshold level.

Response: The Agency agrees that the level of information about emissions from an emissions unit provided pursuant to § 70.5(c) should be sufficient to assess whether an owner or operator has properly proposed part 64 monitoring for all pollutant-specific emissions unit subject to part 64. In accordance with part 70, owners or operators must submit information on both emissions and control equipment on an emissions unit basis. If there is a concern about a particular pollutant-specific emissions unit for which an owner or operator indicates in an application that part 64 is not applicable, the permitting authority retains the authority under part 70 to request additional information.

Letter(s): Dow Chemical Company (VI-D-120)

Comment i: A commenter argued that the process of determining CAM plan applicability will burden the title V permit application and approval process. The commenter noted that applicants must: (1) divide a facility into "emissions units" based on the vague § 70.2 definition which could be as problematic as the proper definition of "source" has been in the past; (2) consider each applicable requirement for each emissions unit on a pollutant-by-pollutant basis (the commenter noted that Dow Chemical Co. has stated that one site contains 14,000 unit/requirement/pollutant combinations to consider); (3) consider whether each combination is subject to subpart B or C, based on the potentially difficult calculation of "uncontrolled emissions." The commenter added that permitting authorities will then have to review the applicability determinations in each permit application and stated that applicability determinations will therefore consume the resources of all parties involved in the permitting process.

Response: The Agency disagrees that the CAM rule requires significantly more applicability determinations than already required under part 70. For example, the monitoring requirements under part 70 require identification of emissions units and associated applicable requirements.

Letter(s): Texas Title V Planning Committee (VI-D-188)

Comment j: Some commenters requested clarification of how the rule would apply to certain devices or equipment. One commenter was concerned with applicability for internal combustion engines. The commenter stated that the applicability section is vague and ambiguous but that it appears that sources must be subject to an emission limitation or standard that is an applicable requirement as defined in part 70. Therefore, the commenter concluded that for IC engines, there must be an applicable SIP limit that applies since IC engines are not covered by federal rules. Another commenter questioned how low NO_x heaters would be treated by the rule and whether they would be subject to subpart B or C.

Response: The final rule explicitly limits applicability to emission limitations or standards that are applicable requirements under part 70. The commenter is correct that a SIP limitation is an applicable requirement as defined by part 70. As to whether part 64 would then apply depends on whether the subject emissions unit (e.g., an IC engine) uses a control

device to achieve that emission limit. Low NO_x burner technology and certain other types of combustion control measures are not included in the definition of "control device" in the final rule.

Letter(s): Engine Manufacturers Association (VI-D-117); National Environmental Development Association (VI-D-169)

Section 3: Implementation

Section 3.1: Timing of Implementation

3.1.1: Requiring Permit Reopenings or Revisions

Comment a: Many state and industry commenters argued that CAM plans should be incorporated into Title V operating permits only at the time of permit issuance or permit renewal (i.e., EPA should not require permit reopenings or revisions to add CAM). State commenters asked that states be given discretion on the issue of reopening permits, and noted that states are permitted to use such discretion when sources add new units. One state requested permits only be reopened for those units whose actual emissions exceed the major source thresholds. An association of state and local authorities agreed that CAM plans will be applicable requirements and are therefore subject to inclusion in Title V permits, but asked that EPA clarify that the effectiveness of CAM plans is not dependent on those plans being incorporated into permits immediately.

Several state commenters stated that CAM plans should not be incorporated into complete permit applications or permits issued prior to CAM's effective date until permit renewal (or if a modification is requested) after the CAM effective date. One of the commenters specified that CAM and/or monitoring plans should be submitted within one year prior to permit renewal, or if a permit modification is requested. Another added that the implementation of CAM will require the use of substantial resources, and the rule should therefore provide state and local agencies with maximum flexibility to adjust their workloads and implementation schedule to best make use of available resources. One agency argued that because applicable EPA guidance may not be developed in a timely fashion, EPA should not press for the reopening of permits for the sole purpose of adding CAM requirements or revising those that do not conform to the developing guidance during the three year initial implementation of Title V. The commenter suggested that CAM requirements that conform to the guidance should be included in the first renewal of the Title V permit.

Industry commenters also asserted that if the CAM rule has not been promulgated prior to a source's permit application due date, CAM should

not be incorporated into the permit until the time of permit renewal. Commenters supported their argument by pointing to the expense that would be associated the reopening permits, delays in the permit revision process resulting from incorporation of CAM at the time of permit revision and harm to sources that need to make changes quickly to respond to marketplace conditions.

Another commenter cited the desire to avoid permit opening and public hearing during the first five year permit cycle as the basis for exempting sources whose permit application has already been submitted when the final rule is promulgated. Another commenter agreed that CAM implementation should be delayed until permit renewal so that pending permit applications do not have to be revised, and recommended further that § 64.3(a)(1)(i)(C) should be deleted.

A commenter supported the timing options for Subpart C implementation presented in the 8/2/96 CAM preamble as minimizing the need to reopen permits, especially during the initial issuance.

Response: In the majority of instances, the Agency agrees that part 64 should not apply before the permit renewal process is initiated and has provided rule language to that effect. However, in cases where permit applications which include large pollutant-specific emissions units -- defined as pollutant-specific emissions units with the potential to emit a regulated air pollutant in an amount equal to or greater than 100 percent of the amount required for a source to be classified as a major source -- have not yet been submitted to or been determined complete by permitting authorities, owners or operators will be required to address part 64. In addition, where a significant permit revision affects a large pollutant-specific emissions unit, the owner or operator will be required to address part 64 requirements for that specific large pollutant-specific emissions unit.

Some commenters suggested that the rule establish a date, i.e., one year before permit renewal, for submission of CAM plans. The Agency does not believe such a schedule is necessary because the part 70 process requires permit renewal applications -- which will address part 64 requirements -- to be submitted between six and eighteen months prior to permit term's expiration date.

- Letter(s): American Petroleum Institute (VI-D-146); Arizona Electric Power Cooperative, Inc. (VI-D-176); Missouri Department of Natural Resources (VI-D-260); National Environmental Development Association (VI-D-169); Occidental Chemical Corporation (VI-D-166); Ohio EPA, Division of Air Pollution Control (VI-D-180); Pennsylvania Department of Environmental Protection (VI-D-174); Pharmaceutical Research and Manufacturers of America (VI-D-217); STAPPA/ALAPCO (VI-D-179); State of Illinois EPA (VI-D-183); State of Tennessee Department of Environment and Conservation (VI-D-234); South Carolina Electric and Gas Company (VI-D-116); Wellman, Inc. (VI-D-237)
- Comment b: Some commenters stated that if implementation is to occur prior to permit renewal, EPA must avoid implementing CAM through permit revisions that would frustrate the effort to streamline permit revisions for less significant changes at a facility. Commenters noted that EPA has expended considerable effort under part 70 to develop streamlined permit revision procedures (i.e. the "notice and go" procedures) which would be frustrated if a source had to propose CAM for any permit revision. A commenter recommended that the rule only require submittal of a CAM plan with a source-initiated significant permit modification. Another commenter recommended requiring sources to submit CAM information upon "any physical modification," instead of "any modification." The commenter stated that this would limit the extent of CAM submittal to those processes being physically altered, and would not require new CAM for such changes as an increase in flow at a POTW.
- Response: As mentioned above, the Agency agrees that CAM implementation need only occur before permit renewal for those large pollutant-specific emissions units involved with significant permit revision applications. This approach will not interfere with streamlined permit revision procedures (such as "notice and go" procedures) that may exist following revisions to part 70 being considered by EPA.
- Letter(s): County Sanitation Districts of Los Angeles County (VI-D-232); Electronic Industries Association (VI-D-137); General Electric Company (VI-D-156); R.R. Donnelley & Sons Company (VI-D-221)

3.1.2: Time Needed for Implementation

Comment a: Many commenters argued that CAM should only be implemented (or at least incorporated into permits) at permit renewal because this approach is the only way to achieve accurate CAM plans and avoid overwhelming the Title V process. Two of the commenters stated that substantial delays in the Title V permitting program would result from the implementation schedule in the 1996 draft part 64, which would conflict with section 502(b)(6) which calls for a streamlined and expeditious permit application and review process. Other commenters added that it is necessary to allow time for permitting authorities to make the necessary changes to their part 70 programs and to adopt CAM. The commenters stated that the need for changes to the Part 70 programs is even greater because EPA has not provided guidance on how CAM plans within an operating permit should be modified, and current procedures are inadequate.

Commenters who supported a longer implementation schedule stated that most significant sources already have some existing monitoring that will apply in the interim and that § 64.3(a)(1)(ii)(C) should be deleted. Other commenters added that the current compliance-related provisions of Title V will still apply in the interim. A state permitting authority supported initial implementation of CAM requirements, including the development of CAM plans, through EPA authority and authority delegated to permitting authorities to be followed by later incorporation of CAM requirements into operating permits at permit renewal. The commenter explained that such an approach would prevent pressure to issue permits prior to CAM promulgation and the need to reopen permits to incorporate CAM.

Other commenters stated that delayed implementation until permit renewal would ensure that all sources get treated equally by implementing CAM on the same general schedule. One of these commenters argued that the problems of implementation 180 days after rule promulgation for those sources without permits or completed permit applications are compounded by varying state schedules and requirements relating to Title V permit applications. For example, the commenter pointed out that in Texas Title V permits are unlikely to be issued prior to the CAM promulgation date which disadvantages sources located there by forcing them to develop CAM plans in the 180 days after rule promulgation. Another commenter with similar concerns added that in some states, under the current implementation schedule, sources would have to submit CAM plans at the end of the application review process after permitting authorities have already developed draft permits.

A commenter supported the changes the implementation provisions in the 1996 draft part 64 under which submittal of the CAM plan can occur as late as the first permit renewal, but asked that EPA further lessen the burden by implementing a longer phase-in schedule giving the source more time to prepare by installing equipment, establishing ranges, improving recordkeeping, etc. Other commenters also supported phasing in the CAM program asserting that development of CAM plans during the initial Title V permit applications and reopening freshly cemented permits is an unwise use of limited resources given the struggles of the agency and the regulated community to implement Title V. These commenters stated that the process of analyzing proposed CAM plans on a case-by-case basis and thousands of exemption petitions would most likely require state agencies to hire and train new staff at a time when the implementation of Part 70 is already consuming substantial time and resources.

Several commenters argued that CAM establishes a new regulatory regime that not only increases stringency of underlying standards, but also requires significant preparation by owners and operators in addressing parameter ranges and potential corrective measures, and that therefore, implementation should not be rushed. The commenters request that CAM be made effective at permit renewal to allow a period of time for sources to adapt. Another commenter suggested that at a minimum, the effective date should be extended from 180 days to a year arguing that the additional time will be especially necessary for sources with multiple units. One local agency expressed concern about the burdens of implementing CAM through the initial Title V permitting when the details of CAM plans have yet to be determined for affected sources.

A few commenters argued for implementing CAM at only permit renewal based on ongoing activity with related regulations. Two commenters stated that waiting until renewal would allow additional MACT rules, with associated monitoring, to be promulgated which may serve as appropriate CAM for other criteria pollutants. Another commenter asserted that EPA should wait until permit renewal to allow for conclusion of legal challenges to CAM and/or CE prior to expending resources on implementation.

One commenter particularly opposed requiring CAM plans for small municipal utility units which exceed the CAM 50 percent cap but not their major source threshold. As an alternative the commenter supported

allowing the permitting authority to require CAM plans for these units at permit renewal.

Response: While the Agency does not agree that an implementation time longer than six months is the sole criterion for developing accurate part 64 monitoring, the Agency agrees that a phased-in implementation schedule will provide owners and operators with time to ascertain and verify appropriate parameters and indicator ranges for most affected pollutant-specific emissions units. For large pollutant-specific emissions units, the Agency believes an automatic delay until permit renewal is not justified. Such units often already have some existing monitoring, and part 64 may only require use of that monitoring or upgraded monitoring. In addition, these units are the most environmentally significant units and the Agency believes that applicability of part 64 to such units should not be delayed unless the permitting process for the unit in question has already substantially proceeded. Finally, the Agency emphasizes that the part 70 monitoring requirements apply at all times. Thus, prior to implementing part 64 monitoring, an owner or operator will have to satisfy these requirements. After approval and operation of part 64 monitoring, the part 70 requirements continue to apply, but the part 64 monitoring will satisfy these requirements.

Even though the Agency plans to use a phased-in implementation schedule, the Agency disagrees with the comment that delay until permit renewal is necessary in order not to penalize those sources located in jurisdictions whose permitting authorities may be unlikely to issue permits prior to the implementation date. The Agency disagrees with the comment that the CAM approval process will become bogged down due to case-by-case review of proposed monitoring. Irrespective of the implementation date, source owners and operators are in the best position to know how their equipment works and what factors have the most bearing on proper operation of emissions control devices. Moreover, the Agency has established a list of CAM examples in a companion technical guidance document. The use of such a list could remove any potential case-by-case bottlenecks. The Agency has requested and continues to solicit examples to be included in the technical guidance document. The Agency also disagrees with the assertion that CAM be delayed until conclusion of legal challenges to the credible evidence (CE) rulemaking. That rule applies independently of the CAM rulemaking.

Letter(s): Air Products and Chemicals, Inc. (VI-D-186); American Automobile Manufacturers Association (VI-D-157); American Municipal Power-Ohio (VI-D-159); American Electric Power (VI-D-129); Arizona Electric Power Cooperative, Inc. (VI-D-176); Armstrong, Teasdale, Schlafly & Davis (VI-D-205); Centerior Energy (VI-D-134); Cinergy Corp. (VI-D-141); Clean Air Implementation Project (VI-D-153); Colorado Association of Commerce and Industry (VI-D-182); Department of Energy (VI-D-196); Electronic Industries Association (VI-D-137); Eli Lilly Company (VI-D-124); Exxon Company, USA (VI-D-135); General Electric Company (VI-D-156); Georgia Department of Natural Resources (VI-D-193); Hawaiian Electric Company, Inc. (VI-D-165); Houston Lighting & Power Company (VI-D-228); Mobil Corporation (VI-D-115); NorAm Gas Transmission Company (VI-D-142); Ohio Chamber of Commerce et al (VI-D-160); Phillips Petroleum Company (VI-D-131); PPG Industries, Inc. (VI-D-136); Rubber Manufacturers Association (VI-D-149); San Diego County Air Pollution Control District (VI-D-191); Specialty Steel Industry of North America (VI-D-143); Steel Manufacturers Association (SMA) (VI-D-144); Texaco Environment Health & Safety (VI-D-199); UCAR Carbon Company, Inc. (VI-D-122); Union Carbide Corporation (VI-D-170)

Comment b: A state agency organization recommended that CAM should be implemented only at permit renewal for Subpart C sources in particular. The commenter proposed revisions to § 64.3(a)(2) such that Subpart C sources would not be required to comply with CAM requirements until the first renewal of their Part 70 permits. The commenter based the need for these revisions on the burdens that implementing CAM will place on states and the regulated industry. The commenter stated that by delaying implementation of CAM for those sources which EPA has acknowledged are less "likely to raise compliance concerns", EPA will have time to focus on developing sample CAM plans and permitting authorities will be able to concentrate their limited resources on proper implementation of CAM for Subpart B sources. Other commenters agreed that Subpart C should not be implemented until renewal. Another commenter suggested that § 64.3(a)(2) clarify that Subpart C requirements can be submitted on a source-wide basis and are not as onerous as Subpart B requirements.

Response: As mentioned above, the Agency decided to remove subpart C from the CAM rulemaking and thus these comments are no longer applicable.

Letter (s): Coastal Corporation (VI-D-123); Colorado Association of Commerce and Industry (VI-D-182); Hawaiian Electric Company, Inc. (VI-D-165); NESCAUM (VI-D-192)

Comment c: A number of commenters focused specifically on the amount of time that should be allocated for sources to implement part 64. Many industry commenters stated that EPA should adopt a less ambitious implementation schedule than the one outlined in the 1996 draft part 64. However, other commenters supported the implementation schedule as manageable. One of these commenters stated that the approach in the 1996 draft part 64 was better than the other options included in the draft preamble. Environmental organizations and vendors expressed concern that the CAM implementation schedule would delay upgraded monitoring. One of these commenters pointed out that many sources would not need to file CAM plans until they file permit renewal applications in 2001 or later, delaying an accurate determination of emissions at sources to 11 or more years after the passage of the Clean Air Act Amendments. Similarly, another commenter noted that most units will not have to begin enhanced monitoring until a date after July, 2002 although EPA was originally required to promulgate rules to implement the enhanced monitoring requirements by 1993. This commenter argued that sources have had plenty of time to prepare, and any further delay of the protection the rule was intended to provide is clearly at odds with Congress' intent. These commenters stated that EPA should require all sources to submit monitoring proposals within 180 days of publication of the final rule.

Comments received from industry argued that while the implementation provisions in the draft rule are superior to the option of relying on existing Part 70 procedures for incorporating new applicable requirements, the schedule is still too ambitious. A few commenters stated that Subparts B and C should be phased in over a number of years. Two other commenters recommended that CAM be implemented only: (1) in the initial permit where an application has not been filed prior to 180 days after CAM promulgation; (2) with a source-initiated significant permit modification; or (3) at permit renewal in all other situations. One of these commenter explained that the concept of submitting a CAM plan for applications that have not yet been determined to be complete effectively shortens the time frame for preparing a CAM plan in those situations and may not be properly implemented by permitting authorities. The

commenter also argued that some sources would have a long lead time prior to permit issuance under a transition plan which would create unfair competitive advantages based on a prioritization scheme that did not consider CAM implementation issues.

One commenter argued that the 180 day period provided for developing CAM plans is far too limited to evaluate CAM applicability, evaluate monitoring options, develop performance specifications, and develop CAM plans. Certain commenters made specific suggestions such as a period of at least 18 months. Another recommendation would have required notice of CAM applicability within 6 months after promulgation after which the source and permitting authority would work out an implementation schedule. Similarly, a commenter suggested that the permitting authority be allowed to lengthen the 180 day deadline for complex sources that may have numerous emissions units subject to the rule. Other commenters noted that developing monitoring may take longer than 6 months for sources that need to conduct testing, obtain funds for public agencies, or procure and install monitoring. One commenter stated that it could not meet the proposed implementation schedule and maintain "reasonable costs."

Two commenters objected to the 180 day period within which some sources would be required to submit CAM plans arguing 180 days would not be enough time to establish indicator ranges because there would be extensive costs and time commitments involved in conducting reference tests and demonstrating correlations between the parameters to be monitored and actual emissions. The commenters added that this problem is compounded by EPA's failure to provide guidance on the proper development of indicator ranges.

A utility association was particularly concerned with § 64.3(a)(1)(i) and suggested significant revisions to that section if the implementation schedule in the draft rule is adopted. The commenter first stated that EPA should provide some additional fixed time period after the 180th day (e.g., an additional 180 days) for sources to develop and submit CAM plans, even if the permit application had not been submitted by the 180th day. The commenter argued that in some cases (i.e., where the State's preexisting schedule calls for submission of the application just after the 180th day), 180 days will not be enough time for development of CAM plans, QIPs, and supporting data.

The commenter also argued that in cases where the permit application has been filed, but has not been determined to be complete by the 180th day, EPA should establish a reasonable deadline (e.g., 180 days after the 180th day) for supplementing complete applications. The commenter noted that the 1996 draft rule did not appear to provide any deadline for submission, but merely stated that it must be done as a supplement to the current permit application and submitted with the permit application.

The commenter was also concerned that, where the deadline for submittal of a permit application was more than one year before promulgation of CAM (which is likely in many States), § 64(a)(1)(i)(C) could result in a requirement for submittal of CAM plans in cases where issuance of a permit may be imminent. The commenter stated that it believed EPA intended to say that the CAM plan would be due with the permit application, if the permit was not scheduled to be issued "for more than 18 months after the date 180 days after promulgation of CAM." This commenter also requested that EPA clarify that this provision only applies in those cases where a transition plan that will result in delayed action on the application has been adopted as part of a State rule. The commenter stated that otherwise a source might be frozen, as of the 180th day, into a schedule for submission of its CAM plan even though the State would be free to accelerate its transition plan and issue the permit early (thus defeating the intent of the provision). Again the commenter stated that in this situation EPA should provide a reasonable deadline (e.g., 180 days after the 180th day) for submission of the CAM plan as a supplement to the previously "complete" application.

Response: The Agency concurs with the commenters who suggest using a phased-in approach for CAM implementation. The Agency does not view a phased-in approach as a vehicle for delaying monitoring upgrades or accurate determination of emissions. Part 70 already requires permits to contain monitoring which provides data that are used to develop the compliance certifications. Should existing monitoring be found insufficient for that purpose, under part 70, source owners or operators are required to provide monitoring - including upgrades as required - sufficient for that task.

The Agency disagrees, however, that more than 180 days should be provided for emissions units that may be subject to implementation of part 64 in initial part 70 permits. A six-month lead time should be adequate to

make a determination related to what monitoring approach to propose and to determine whether a basis exists for establishing indicator ranges on existing data or there will be a need to conduct subsequent testing. The Agency believes that this lead time is adequate especially because the final rule will apply only to large units initially. For these units, existing test data and monitoring approaches often will exist under current applicable requirements.

With respect to the need to supplement a permit application in situations where an application has not yet been found complete, the Agency believes that the timing of that supplement is best worked out between the source and the permitting authority. Finally, the final rule does not include the draft provision concerning applications for sources covered by a transition plan. Thus, comments on that provision are no longer applicable.

Letter(s): American Gas Association (VI-D-154); Baltimore Gas & Electric Company (VI-D-177); California Association of Sanitation Agencies (VI-D-206); Clean Steel Coalition (VI-D-195); Colorado Association of Commerce and Industry (VI-D-182); County Sanitation Districts of Orange County, California (VI-D-231); Institute of Clean Air Companies (VI-D-139); Natural Resources Defense Council (VI-D-151); Pennsylvania Chamber of Business and Industry (VI-D-114); Public Service Company of Colorado (VI-D-219); R.R. Donnelley & Sons Company (VI-D-221); Sierra Club, Lone Star Chapter (VI-D-242); Specialty Steel Industry of North America (VI-D-143); Steel Manufacturers Association (SMA) (VI-D-144); Texas Chemical Council (VI-D-236); The Fertilizer Institute (VI-D-145); Total Petroleum, Inc. (VI-D-190); Tri-TAC (VI-D-225); Utility Air Regulatory Group (VI-D-140); Virginia Power (VI-D-226); Wisconsin Electric Power Company (VI-D-130)

Comment d: One commenter also argued that § 64.3(a)(1)(ii) could be interpreted to actually require sources that have not already submitted CAM plans as of the 180th day to request a permit modification in order to incorporate a CAM plan. The commenter then stated that EPA should clarify that the provision is only intended to address cases where a source voluntarily seeks modification. The commenter also expressed concern that the impact of this provision might not be fully understood until EPA has promulgated the revisions to the Part 70 procedures for permit

modifications, and stated that EPA should not promulgate a CAM rule which would frustrate those streamlined procedures by tying a requirement for development of a CAM plan to every permit modification, regardless of significance.

Response: The Agency agrees with this comment concerning potential conflict with streamlined permit modification procedures currently under consideration, and the final rule includes appropriate language to clarify that this provision only applies to significant permit revisions. The Agency disagrees, however, with the concept that the provision should only apply where a revision is sought by the permittee voluntarily. Regardless of the reason for a significant permit revision, the process for such a revision provides an appropriate opportunity for addressing part 64 requirements for any pollutant-specific emissions units subject to the revision. The final rule thus does not limit this provision in the manner suggested by the commenter.

Letter(s): Utility Air Regulatory Group (VI-D-140)

Comment e: One commenter argued that EPA should revise § 64.3(a)(1)(iii) to clarify that States are not only not required, but are also not allowed, to require submission of a CAM plan before permit renewal in those cases where the permit application has been deemed complete as of the 180th day and final action is not scheduled to occur more than 18 months after, pursuant to a legally promulgated transition plan (unless the source triggers the CAM plan requirement by voluntarily seeking a significant permit modification for that PSEU).

Response: The Agency does not agree that permitting authorities are prevented from implementing part 64 prior to permit renewal. When acting under their own authority, permitting authorities are able to initiate implementation earlier than required by part 64 just as for any other rulemaking.

Letter(s): Utility Air Regulatory Group (VI-D-140)

3.1.3: Specific Implementation Alternatives Recommended

Comment a: Several commenters recommended various alternative implementation schedules. Two comments received from a state agency and a state agency organization suggested making the rule effective 12 months after promulgation. One of these commenters noted that as proposed, only sources not scheduled to receive their Title V permit within 180 days of promulgation would be required to implement CAM and that permitting authorities would be forced to choose sources to which CAM would be applied. The second commenter argued that the current schedule encourages sources to press to get their Title V permits issued prior to promulgation of CAM, and may force agencies to issue permits without proper permit application review and permit preparation.

Another state agency argued that CAM should be incorporated into operating permits as national technical guidance becomes available for each source category. The commenter supported a phased-in implementation schedule, but noted that under the schedule in the 1996 draft part 64 rule, most sources would not have to take any steps to satisfy CAM until permit renewal after the year 2000. By allowing states to oversee source development of CAM plans as technical guidance for source categories is developed, EPA could ensure that CAM is implemented more uniformly nationwide while avoiding the overburdening of state resources which would accompany the case-by-case evaluation of CAM plans in the absence of technical guidance.

If CAM is implemented before permit renewal, one commenter recommended that 18 months be allowed for development of CAM plans and that an additional year be allowed for States, local authorities, and the regulated facilities to determine the efficacy of CAM plans and evaluate the CAM approach before subjecting sources to CAM related violations. Another commenter recommended revisions to § 64.3(a)(1) which would make CAM effective for Subpart B units without permits or completed permit applications on or after 180 days after publication of the final rule "or such other date as the permitting authority determines necessary due to the complexity of the unit or facility." Finally, another commenter recommended generally that, if the current level of applicability is retained, EPA should implement the rule in several phases, and establish a pilot program to demonstrate how the rule will actually work and to identify changes and clarifications that are needed to make the rule workable.

Response: The Agency does not agree that permitting authorities will be forced to rearrange their permit issuance schedule. Under the flexibility afforded permitting authorities under part 70, one third of the initial permits were to be issued in each of the first three years following program approval. This part 70 phased-in approach was designed to allow permitting authorities additional time beyond the ordinary eighteen month period for permit issuance to become familiar with the permitting process. Many permitting authorities decided to initiate permitting with less complex sources, progressing into more complex source permitting and building knowledge and expertise along the way. Moreover, some permitting authorities took advantage of additional time to build expertise afforded though the source category limited approval process. Since permitting authorities chose their permitting schedules without respect to the part 64 implementation process, the Agency does not anticipate that previous choices on permitting schedules should have any impact. Because part 70 holds permitting authorities responsible for developing and issuing complete permits or for facing sanctions ranging from individual permit reopenings or revisions to program withdrawals, the Agency does not believe that permitting authorities may choose to issue permits without proper permit application review and permit preparation.

The Agency believes that the phased-in approach for part 64 implementation will allow permitting authorities and sources to have time to propose, develop, test, and refine part 64 monitoring. The Agency will consider incorporation of such methods in the Technical Guideline Document, provided that permitting authorities and owners or operators present that information to the Agency.

Letter(s): Coastal Corporation (VI-D-123); DuPont Engineering (VI-D-127); Nebraska Department of Environmental Quality (VI-D-211); State of New Jersey Dept. of Environmental Protection (VI-D-215); STAPPA/ALAPCO (VI-D-179); Texaco Environment Health & Safety (VI-D-199)

Comment b: One state agency recommended a programmatic approach to implementation. The commenter stated that although the option of reopening permits would provide for quick implementation of CAM, it would impose an unworkable administrative burden on state agencies, adding that a programmatic approach will require many sources to comply with state rules even before issuance of permits.

The commenter further explained that states with source category approved operating permit programs will have to include a comprehensive CAM program in all initial permits while many other states will have until permit modification or permit renewal to comply with CAM. The commenter stated that due to the large number of sources in certain states and other factors, EPA has recognized the need for the source category interim program to allow phased permitting, and argued that the benefits of source category approval followed by full program approval are significantly negated if these states must implement CAM for the full program. The commenter therefore recommended that EPA should provide at least 18 months after the promulgation of CAM to perform state rulemaking and develop an implementation schedule under a state programmatic approach. An industry commenter supported this same approach. (See further discussion of the programmatic option in 3.5, below.)

Response: As mentioned above, the CAM implementation process is to be phased-in, with the majority of pollutant-specific emissions units becoming affected upon renewal of an existing permit, not upon wholesale permit reopenings. Also as mentioned above, the Agency expects that individual permitting authorities who were afforded flexibility in determining their permitting scheduling used that extra time to hone their expertise. Therefore, inclusion of the additional applicable requirements due to part 64 should be easily handled. The Agency also notes that permitting authorities are not required to implement part 64 initially for their complete programs; rather, implementation will be only for large emissions units initially in accordance with the phased-in schedule.

Letter(s): Houston Lighting & Power Company (VI-D-228); Texas Natural Resource Conservation Commission (VI-D-189)

3.1.4: Need for Changes to State Regulations or Programs

Comment a: Several commenters were concerned with the issue of changes to permitting authority programs. One commenter argued that the timing of CAM implementation should address such changes since most, if not all, state and local Part 70 programs will have to be revised to incorporate the monitoring changes required by the CAM rule. The commenter recommended that EPA should require that the Part 70 program changes

themselves allow for a reasonable time, preferably at least a year, to implement the changes required by CAM, which would mean that permits under those programs would not have to be reopened for at least a year. Another commenter agreed that the 180 day period provided in the rule is insufficient time for States to revise their current Part 70 rules to be consistent with the new program and to obtain any necessary legislative or regulatory authority to implement CAM.

A coalition group objected to the draft rule requiring the states to implement CAM as soon as it is effective without any consideration of regulatory authority or resources to do so. The commenter explained that, because CAM involves major issues of discretion, States will have to decide upon their position and then implement that decision through appropriate rulemaking or legislation. The requirement in many states to assure that State requirements are no more stringent than the federal minimum also will complicate CAM implementation, according to the commenter. The commenter added that CAM is likely to result in the need for new staff, with changes in permit fees and that standard permit application forms will have to be changed. This commenter stated that all of these issues must be addressed in accordance with the procedures for modifying and approving title V programs, which at a minimum provide a state up to two years to make a necessary change. The commenter claimed that EPA had simply put CAM into effect without observing the legal requirements for revisions in CAA section 502. The commenter also argued that, as an example, the Texas programmatic option is one that the state is legally entitled to present to EPA as an approach to consider for implementing the federal CAM requirements, and that EPA should allow for this proposal in developing its implementation provisions, as a matter of sound policy.

Another commenter also stated that state implementation of CAM will require the amendment of Title V permit programs, and that such changes will have to be approved by EPA. In order for the CAM program to be successful, the commenter argued that EPA will have to obtain assurances from the states that changes to Title V programs allow for adequate allocation of resources for the states to develop, administer, and enforce the CAM program, adding that changes to state permitting programs should include a streamlined procedure for amending CAM plans. This commenter also stated that, in addressing these issues, EPA

must follow the procedures specified in the Act and EPA's own implementing regulations for making such changes to state programs.

Another commenter argued that states will need delegation of authority from EPA to implement part 64 through their permit programs, but that EPA cannot delegate its authority unless a state has developed its procedures for implementing the CAM rule, and the Administrator has found those procedures to be adequate (see section 114(b)(1)). Many states will have to go through rulemaking in order to have adequate authority for receiving delegation of CAM, according to the commenter who stated that until that occurs, only EPA would have the ability to implement CAM, which would be unworkable since EPA is not administering title V generally. The commenter concluded that all of these actions will take time to implement and CAM should not apply until the state authority issues have been addressed.

Response: The Agency disagrees that CAM implementation will be necessarily impeded due to revisions of state and local permitting programs to incorporate part 70 program changes related to monitoring and compliance certification requirements. Permitting authorities have already had to show their ability to handle regulatory changes without putting their programs on hold. In order to have received program approval, permitting authorities had to submit legal opinions that demonstrated adequate legal authority to incorporate these kind of requirements and to have the ability to incorporate into permits all applicable requirements - including incorporating monitoring into permits as specified in § 70.6. (40 CFR § 70.4(b)(3)(ii)) Section 70.6 specifically mentions that monitoring required under section 114(a)(3) must be included in permits.

In any event, the Agency does not believe that the promulgation of part 64 will require any significant changes in State permit programs. As mentioned above, currently, part 70 specifies that monitoring required under section 114(a)(3) is an applicable requirement which must be addressed in the operating permit. 40 CFR §§ 70.6(a)(3) and 70.2. To the extent any changes in a State permit program are needed, the revision procedure in section 70.4(i) will apply. This rulemaking has resulted in changes to the compliance certification language in part 70 and the revision procedures in section 70.4(i) do apply to the extent States compliance certification requirements need to be revised.

However, section 70.4(i) procedures do not require revisions to a State operating permit program when an applicable requirement such as part 64 is promulgated. The EPA disagrees with the coalition group's description of the statutory requirements regarding changes in a State's permitting program.

Finally, the Agency does not believe, consistent with sections 70.4 and 70.10 of the part 70 regulations and the Act, that CAM implementation will result in an inability by permitting authorities to administer, enforce, or otherwise conduct their approved programs in accordance with the requirements of part 70 or the Act. If an approved State comes to believe that it no longer has legal authority to implement part 70 adequately, or if the State believes that it has inadequate resources or funding or other means to implement its program, then the State may initiate a program revision. Similarly, if EPA becomes convinced that such situations exist, then EPA may initiate a program revision to an approved State program at a later time.

As previously mentioned, the Agency does not prohibit permitting authorities from using programmatic approaches for part 64 implementation. EPA disagrees with the coalition group's description of the statutory requirements. Moreover, the Agency does not believe that the promulgation of part 64 will require any significant changes in State permit programs. Currently, part 70 specifies that monitoring required under section 114(a)(3) is an applicable requirement which must be addressed in the operating permit. 40 CFR §§ 70.6(a)(3) and 70.2. To the extent any changes in a State permit program is needed, the revision procedure in section 70.4(i) will apply. This rulemaking has resulted in changes to the compliance certification language in part 70 and the revision procedures in section 70.4(i) do apply to the extent States compliance certification requirements need to be modified. Finally, the Agency does not believe, consistent with sections 70.4 and 70.10 of the part 70 regulations and the Act, that CAM implementation will result in an inability by permitting authorities to administer, enforce, or otherwise conduct their approved programs in accordance with the requirements of part 70 or the Act. If an approved State comes to believe that it no longer has legal authority to implement part 70 adequately, or if the State believes that it has inadequate resources or funding or other means to implement its program, then the State may initiate a program revision. Similarly, if EPA becomes convinced that such situations exist, then EPA

may initiate a program revision to an approved State program at a later time.

Letter(s): Coalition for Clean Air Implementation (VI-D-164); Coalition for Clean Air Implementation (VI-D-249); Department of Defense (VI-D-209); Eastman Chemical Company (VI-D-173); Marathon Oil Company (VI-D-185); Utility Air Regulatory Group (VI-D-140)

3.1.5: Requests for Clarification

Comment a: One commenter recommended generally that EPA more specifically define the information to be submitted and the deadlines for submittal. Another commenter stated that it was unclear what deadline applies if an application is deemed complete by the permitting authority and issuance or denial of the application is expected within 18 months of the application deadline. The commenter also requested clarification as to whether the completeness determination referred to in § 64.3 is the determination that invokes the application shield.

Response: The Agency believes the final rule sets forth explicit submittal requirements and deadlines. The Agency interprets the example to be a question concerning whether part 64 needs to be added if a permit, based on an application determined complete before the effective date of part 64, is denied. The rule is clear on this point: if a permit application which covers at least one large pollutant-specific emissions unit is required on or after the date 180 days after publication of this rule in the Federal Register, then part 64 needs to be addressed as an applicable requirement. The permit application completeness determination mentioned in part 64 is the determination that allows a part 70 source to operate without a permit during the period between submission of a complete application and issuance of a final permit. That determination is discussed in §§ 70.5(a)(2) and 70.7(b).

Letter(s): Ohio EPA, Division of Air Pollution Control (VI-D-180); PPG Industries, Inc. (VI-D-136)

Comment b: A commenter requested clarification as to whether a CAM plan would be part of a permitting authority's completeness determination for applications submitted after the 180 day period following CAM

promulgation, and requested EPA to clarify the outcome of a situation in which the application is determined to be complete but the CAM plan is subsequently disapproved.

Response: Part 64 monitoring will be included as part of permitting authorities' permit application completeness determinations, because, as required by §§ 70.5(c)(3)(v) and 70.5(c)(4), the monitoring involves air pollution control equipment and compliance monitoring devices and applicable requirements. The Agency has added rule language at § 64.6(e) to clarify the consequences of disapproval of monitoring submitted under part 64.

Letter(s): Department of Energy (VI-D-196)

Comment c: One of the commenters stated that its understanding of the implementation schedule was that some facilities may not require CAM until permit renewal, but that the effective date will be January 1999 for sources with complete permit applications that are not scheduled to receive permits for more than 18 months.

Response: As mentioned above, the provision in the 1996 part 64 Draft concerning permit schedules under a transition plan is not included in the final rule. The Agency believes the draft provision was confusing and would have created implementation uncertainties.

Letter(s): American Furniture Manufacturers Association (VI-D-203)

Comment d: A commenter requested clarification of § 64.3(a)(1)(i). The commenter noted that, as currently written, this section appears to require submission of a CAM plan or Subpart C monitoring description with a Part 70 permit application within 180 days after rule publication even if such applications are not yet due under the operating permit program or if the State is subject to Part 71 instead of Part 70.

Response: Part 64 does not compel submission of permit applications in advance of the schedule established by permitting authorities. However, permitting authorities have the ability to set, and adjust, their application submission schedules, so some permitting authorities may seek to advance their application submission schedules. In the event that sources are subject

to a federal operating permits program, the Agency will establish appropriate application submission schedules.

Letter(s): Texas Chemical Council (VI-D-236)

Comment e: Two commenters recommended that EPA clarify when CAM submissions are due from sources whose permit applications will be acted upon under a transition plan. The commenters noted that § 64.3(a)(1)(i)(C) requires CAM plans or Subpart C monitoring plans to be filed as part of the permit by " . . . those whose applications have been deemed complete, but which are not scheduled to receive final action for at least 18 months from a specified date." They then stated that the rule and the preamble disagree about that specified date since the rule refers to 18 months after the deadline for submittal of such application while the preamble refers to 18 months after the date 180 days after the promulgation of CAM. The commenters proposed various revisions to § 64.3(a)(1)(i)(C) to make the rule consistent with the preamble, and suggests that EPA not allow CAM implementation to interfere with initial Title V implementation.

Response: These comments are no longer applicable because, as discussed above, the draft provision related to implementing CAM for certain units covered by a transition plan is not included in the final rule.

Letter(s): Chemical Manufacturers Association (VI-D-152); Union Carbide Corporation (VI-D-170)

Comment f: A commenter suggested that § 64.3(a)(1)(ii) use the word "any" instead of "a" before "request" so that it is clear that the information must be submitted only with a request initiated by the owner and not as a required separate request.

Response: The Agency is unable to discern the difference in terms suggested by the commenter. However, the specific language cited has been omitted in the final rule. As previously mentioned, information from § 64.3 from the 1996 part 64 Draft has been moved to § 64.5 of the final rule. In the final rule, the requirement to address part 64 in a permit modification applies to any significant permit modification action, whether initiated by the owner or

operator, or required by the permitting authority or a regulatory requirement. See response to Comment d in section 3.1.2 (Part III).

Letter(s): KBN Engineering and Applied Sciences, Inc. (VI-D-229)

Comment g: One commenter recommended that EPA include in part 64 a statement that the part 70 permit application shield is not breached if the permitting authority requests further information on a CAM plan or accepts compliance plan for establishing indicator ranges after permit issuance.

Response: Neither of the two situations would breach the permit application shield. A request for additional information related to proposed monitoring is allowed under § 70.5. Such a request for part 64 issues does not affect the application shield any more than it would for any other applicable requirement. Thus, EPA does not believe that explicit language on this issue is necessary or appropriate for part 64. Since the compliance plan would be issued as part of the permit, the Agency does not believe that the application shield will come into play in this circumstance. Moreover, even if it did, the part 64-related compliance plan would be treated in the same respect as any other compliance plan and thus no explicit part 64 language on this issue is necessary or appropriate.

Letter(s): National Environmental Development Association (VI-D-169)

Section 3.2: CAM Elements in Permits

Section 3.2.1: Number of Terms in Permit/Flexibility Concerns

3.2.1.1: Inclusion of CAM Elements in Title V Permits

Comment a: Many commenters discussed the link between CAM plans and Title V operating permits. One commenter supported the inclusion of CAM requirements in operating permits as being consistent with the Congressional intent to include all the requirements that a source must meet in a single document. Another commenter suggested that a rule requiring direct emissions measurement would avoid the problems associated with codification of detailed operations and maintenance requirements for sources. This commenter argued that with direct

monitoring operational flexibility is maximized since process parameters and work practices can be varied freely so long as emissions limits are met.

Most commenters, however, stated that incorporating numerous CAM plan and Subpart C monitoring elements into operating permits is contrary to statements made by EPA and will interfere with the ability to revise CAM plans and Subpart C monitoring, because changes to the plans could only be accomplished through the detailed and time-consuming permit modification procedures. A few commenters also emphasized that the delays associated with modifying these terms will be most severe in the early years of the CAM program, when sources should be encouraged to refine their CAM plans and monitoring. The commenters argued that requiring monitoring details such as frequency, averaging time, parameter monitoring ranges, etc. to be specified in the permit before the adjustment period will require significant effort in modifying the permits.

Pharmaceutical industry commenters noted that their concerns are based on the flexible nature of batch pharmaceutical operations where changes that are considered (*e.g.*, manufacture of a product in different areas of a facility) would necessitate changes to a source's CAM plan which would then need to be incorporated into the source's Title V permit through permit modification. Another commenter expressed concern about the burdens of reviewing permit applications and concomitant delays in receiving permits.

A commenter stated that the process of developing and approving CAM plans will impose a substantial burden on the Title V permitting process since multiple CAM plans may be required for each site, and site-specific test data is necessary to justify each CAM plan element, which may make each CAM plan a document as big as a graduate thesis. The commenter pointed out that permitting authorities will then need to make timely case-by-case technical evaluations of the proposed CAM plans. The commenter noted that this will result in a heavy workload for permitting authorities such that sufficient time may not be spent on each permit, adding that just one discretionary criterion, such as BACT in the NSR context, can double the time for permit issuance.

Commenters argued that the CAM rule would overwhelm the Title V permit process by creating a vast number of new requirements to be included in operating permits. One commenter stated that for each

emissions limit or standard, the proposed rule could require that ten CAM plan elements be incorporated into a permit which would result in the creation of numerous new work-practice type requirements. The commenter noted that the development of similar work practices, such as LDAR requirements for VOC sources, took millions of dollars and many years and that EPA's use of Title V to create such new requirements is contrary to EPA's statements in the July 1, 1995 Title V White Paper that operating permits should be used to define existing requirements and not to impose new requirements. One commenter objected to § 64.3(b)(2) allowing the permitting authority unlimited discretion to make any element of a CAM plan part of the permit. The commenter argued that not only is this an unwarranted delegation of authority, it is inconsistent with the intent of CAM to limit the terms in the permit, and stated that the rule must specify exactly what elements are to be included in the permit.

Some commenters cautioned that changes in new CAM plans must be anticipated during initial implementation, particularly during the first year. Commenters were concerned that the current CAM rule would seem to require permit modification for almost any CAM plan change and would overwhelm the Title V permit system. For example, commenters pointed out that indicator ranges will likely be continually refined as better data are obtained, and control measure parameters may need to be altered because of process changes or improved information. Requiring permit modification under such circumstances will lead to long and expensive permit modification proceedings with varying results from state to state.

Another commenter concerned about the ability to make changes to CAM plans and indicator ranges during the early implementation of the program noted that adjustments are still being made to the use of CEMS under the South Coast Air Quality Management District's RECLAIM rule three years after adoption of that rule. The commenter stated that these adjustments could be far more easily accomplished if CAM plans are independent of operating permits. Another commenter recommended that the rule provide flexibility which will be needed by new facilities which often have to adjust operating conditions to meet emission limits in a manner different than the original design parameters.

Other commenters stated that at a minimum, EPA should explicitly provide for CAM permit modifications to be processed under "notice and go" provisions or as administrative changes. A commenter suggested that

changes to indicator ranges be processed using the most minimum modification procedure that is allowed once the part 70 revisions concerning permit modifications are finalized and another stated more generally that permit modification procedures for CAM requirements should be as limited and streamlined as possible. A coalition group noted that the approach in the CAM draft would seem to frustrate the work EPA has put into providing streamlined permit modification procedures and that the rule must provide for streamlined permit modification procedures, especially for the early years of CAM implementation which will require substantial debugging.

Certain commenters argued that imposing unnecessary detail such as specific parameter ranges in the permit could actually create a disincentive to development of monitoring designed to identify problems with control equipment, and to process or monitoring improvements that may reduce pollution or conserve resources because of the burdensome permit modification process. Commenters requested that such changes to parameter ranges be done "off-permit."

One commenter who recommended the deletion of § 64.11(d) because the details of a CAM plan should not be established as permit elements noted that any changes to monitoring as a result of a QIP will be reported under the requirements of § 64.11(c).

One commenter objected to compliance monitoring requirements becoming title V applicable requirements, and stated in particular that indicator ranges should not become equivalent to an emission limitation or standard. The commenter argued that the purpose of CAM should be to assure compliance with underlying applicable requirements, not establish new requirements.

Another commenter discussed the procedures for modifying permits in the 1996 part 64 draft and earlier drafts. The commenter asserted that the 1996 draft would generally require a significant permit modification for any CAM plan change. According to the commenter the 1995 part 70 permit modification proposal could allow some, but unspecified, streamlining based on unspecified procedures to be developed by a state and approved by EPA and the 1994 part 70 permit modification proposal does not provide any greater assistance than the 1995 proposal; given the changes to the permit modification revisions proposed since that 1994

proposal as well as the changes to the original EM proposal in CAM, the 1994 part 70 proposal cannot be a valid basis for promulgating final permit modification procedures.

Response: The Agency disagrees with the commenters' suggestions that including part 64 monitoring elements in part 70 permits will necessarily interfere with the ability to revise part 64 monitoring. The required monitoring elements to include in a permit are not significantly different from the elements of monitoring that would have to be included in a permit where the underlying requirement specifies the monitoring approach or where an owner or operator has received approval of an alternative monitoring methodology. In addition, the Agency has addressed concerns about the potential need to revise indicator ranges without having to obtain a permit revision. The final rule allows owners or operators the choice in establishing a permit condition that sets out the process for setting parameter indicator ranges or that establishes the actual indicator ranges. As mentioned before, the Agency notes that subpart C is no longer included in the rule and that revisions to part 64 monitoring are to take place in accordance with the permit revision procedures given in part 70. As mentioned in the preamble, the Agency believes the phased-in CAM implementation schedule will help minimize any burden on the operating permit process.

Letter(s): Air Products and Chemicals, Inc. (VI-D-186); American Automobile Manufacturers Association (VI-D-157); American Petroleum Institute (VI-D-146); ASARCO Incorporated (VI-D-187); BP Oil Company (VI-D-113); Can Manufacturers Institute (VI-D-181); Chemical Manufacturers Association (VI-D-152); Chevron Companies (VI-D-132); CITGO Petroleum Corporation (VI-D-172); Clean Air Implementation Project (VI-D-153); Coalition for Clean Air Implementation (VI-D-164); Cooperative Power Corporation (VI-D-208); Department of Defense (VI-D-209); DuPont Engineering (VI-D-127); Duquesne Light (VI-D-138); Eastman Chemical Company (VI-D-173); Eli Lilly Company (VI-D-124); Exxon Chemical Americas (VI-D-128); Exxon Company, USA (VI-D-135); General Electric Company (VI-D-156); Independent Liquid Terminals Association (VI-D-178); Institute of Clean Air Companies (VI-D-139); Metropolitan Council (VI-D-214); Mobil Corporation (VI-D-115); Ohio Chamber of Commerce et al (VI-D-160); Pennsylvania Chamber of Business and Industry (VI-D-114); Pennzoil Company (VI-D-133); Pharmaceutical Research and Manufacturers of America (VI-D-217);

Public Service Company of Colorado (VI-D-219); Rubber Manufacturers Association (VI-D-149); South Carolina Electric and Gas Company (VI-D-116); Southern California Gas Company (VI-D-222); Texas Title V Planning Committee (VI-D-188); The Society of the Plastics Industry (VI-D-148); The Fertilizer Institute (VI-D-145); UCAR Carbon Company, Inc. (VI-D-122); Utility Air Regulatory Group (VI-D-140); Virginia Power (VI-D-226)

Comment b: Several commenters who acknowledged that Title V operating permits may have to contain conditions which assure compliance with CAM proposed an approach whereby sources would note that they are subject to CAM in their initial permit application and would certify whether or not they are in compliance with CAM. Under the commenters' proposal, if not in compliance, CAM would be included in the source's compliance schedule, like any applicable requirement. The commenters suggested that sources would then have to certify compliance with CAM at least annually and argued that this approach would allow for CAM plan revisions without the delays of permit modification. A commenter suggested using the approach contained in the EM proposal whereby a facility monitoring protocol would be incorporated by reference into the Title V permit, but would remain separate from the permit and outside of the permit modification process. The commenter asked that the Title V permit only include the requirement to develop, maintain, and implement the CAM plans. They recommended revisions to §§ 64.3(b)(2), (3), (5), and (6) to bring about such changes.

Many commenters cited the recently-promulgated Risk Management Plan (RMP) rule as support for these approaches. 61 Fed. Reg. 31668 (June 20, 1996). Some commenters also noted that the preamble to the RMP rule specifically states that "EPA does not believe that the RMP or all or any portion of the remainder of part 68 should become permit conditions because the RMP and part 68 elements will be highly source-specific and subject to frequent change introducing unnecessary complexity and delaying permit implementation." Other commenters compared the approach of putting all the detail in the CAM plan rather than the permit with EPA's practices in other rules, including the Part 63 startup/shutdown/malfunction plan rules, as well as the RMP rule. Another commenter who recommended the RMP approach also asserted

that there is actually nothing in the Act that compels EPA to review all details of all CAM plans as suggested by the draft CAM approach.

One commenter was particularly concerned with the requirement that the elements for judging data validity be included in the permit. Since quality assurance procedures can be quite complex, the commenter favored establishing a general permit condition encompassing the requirement for implementation of the performance criteria.

Response: The Agency disagrees with the commenters' suggestions that part 64 monitoring development is analogous to RMP development. The RMPs required under section 112 are detailed procedural manuals, often based on standard operating procedure manuals or similar items. The level of detail required to be included in a permit to address part 64 is not comparable to an RMP.

Letter(s): American Automobile Manufacturers Association (VI-D-157); American Petroleum Institute (VI-D-146); Chemical Manufacturers Association (VI-D-152); Chevron Companies (VI-D-132); Class of '85 Regulatory Response Group (VI-D-161); Clean Air Implementation Project (VI-D-153); Cooperative Power Corporation (VI-D-208); Eli Lilly Company (VI-D-124); Exxon Chemical Americas (VI-D-128); Mobil Corporation (VI-D-115); Pharmaceutical Research and Manufacturers of America (VI-D-217); Phillips Petroleum Company (VI-D-131); Rubber Manufacturers Association (VI-D-149); UCAR Carbon Company, Inc. (VI-D-122); Virginia Power (VI-D-226)

Comment c: A number of commenters who objected to the number of new applicable requirements provided for under the 1996 draft part 64 suggested key elements for inclusion in the permit which they described as maintaining the focus of the rule and streamlining the process of changing and amending CAM plans. These commenters recommended that only the most major elements of the monitoring plan should be referenced as permit conditions.

Some commenters believed that the CAM rule should only establish two new applicable requirements: the requirement to have a CAM plan and the requirement to report deviations (or excursions and exceedances). Other commenters agreed that the only CAM requirements that should be

included in a permit are the obligation to have a CAM plan and the obligation to report deviations; they expressed concern that CAM requirements could become a critical path roadblock to processing modifications expeditiously so as to allow necessary operating changes to respond to business needs. Therefore, the commenters concluded that approval of CAM changes should be allowed to occur off-permit.

A state agency commenter recommended including only the parameter to be monitored and the requirement to establish an indicator range in the operating permit. The commenter suggested that indicator ranges be submitted in the semiannual report which would eliminate the need to modify permits to establish indicator ranges. Under the commenter's approach, permitting authorities would approve changes in indicator ranges. Another commenter recommended that only the list of sources required to have a CAM plan be incorporated into the Title V permit. This commenter stated that CAM plans would then be developed as separate documents with non-permit related revision requirements.

A few commenters stated that the CAM rule should only require that an operating permit include the condition that a source must have a CAM plan and that actual CAM plan elements should not be a part of the permit. Another commenter who argued that the CAM plan should only be referenced in the permit, rather than being incorporated into the permit conditions stated that this would prevent reopening of the permit for incorporation of the CAM plan and any subsequent amendments, and would limit excursions from CAM plan indicator ranges to the status of CAM violations, instead of allowing them to become permit violations. Other commenters suggested that the permit include the requirement to have a CAM plan plus a general requirement reflecting the corrective action/QIP obligations of CAM.

Some commenters suggested that the only two requirements be an assertion that the source has developed and filed with the permitting authority a plan and a statement as to which elements of the plan are federally-enforceable. A commenter stated that the list in § 64.7(a) presents a good start at such a statement, except for § 64.7(a)(5) which is open-ended and should be deleted. The commenter added that the provisions in paragraphs (a)(1) through (a)(4) could be simplified and streamlined which will be important to assure the flexibility to modify

monitoring without permit modifications and to limit the number of elements that are considered federally-enforceable requirements.

Finally, two commenters simply suggested including within the permit a separate section, where the source could include each CAM plan in its entirety and distinguish CAM requirements from non-CAM requirements.

Response: As mentioned above, the Agency believes the primary flexibility concern has been addressed by allowing permits to contain the process for adjusting parameter indicator ranges, or the indicator ranges themselves. The Agency disagrees with the concept of a general condition that an owner or operator maintain and operate in accordance with a CAM plan. Monitoring under part 64 is treated in the same manner as monitoring under any other applicable requirement: the permit needs to specify what the source will monitor, how the monitor will be operated and maintained, and how the owner or operator will report exceedance/excursion data.

Letter(s): Air Products and Chemicals, Inc. (VI-D-186); American Automobile Manufacturers Association (VI-D-157); Association of Battery Recyclers (VI-D-155); California Association of Sanitation Agencies (VI-D-206); Chemical Manufacturers Association (VI-D-152); CITGO Petroleum Corporation (VI-D-172); Coalition for Clean Air Implementation (VI-D-164); County Sanitation Districts of Los Angeles County (VI-D-232); County Sanitation Districts of Orange County, California (VI-D-231); Duquesne Light (VI-D-138); Eastman Chemical Company (VI-D-173); Exxon Company, USA (VI-D-135); General Electric Company (VI-D-156); Mobil Corporation (VI-D-115); Ohio Chamber of Commerce et al (VI-D-160); Pennzoil Company (VI-D-133); Public Service Company of Colorado (VI-D-219); Southern California Gas Company (VI-D-222); Texas Natural Resource Conservation Commission (VI-D-189); Texas Chemical Council (VI-D-236)

3.2.1.2: Permit Shield

Comment a: Some commenters supported extending the permit shield to monitoring requirements and noted that EPA had correctly recognized that extension of the permit shield to monitoring would allay source concerns about the adequacy of monitoring under Part 64. A few commenters stated that a source that is in compliance with an approved CAM plan is entitled to the

protection of the statutory permit shield provisions. Recognizing that EPA can require correction of inadequate plans, the commenters argued that a source should not be penalized for complying with an approved plan. These commenters concluded that compliance with the CAM plan, since it constitutes a title V permit requirement, should constitute compliance with the source's obligations to reasonably assure compliance with the underlying applicable requirements. Another commenter added that the shield must be provided so that if a source complies with its CAM obligations it may certify compliance.

One commenter stated that the shield should attach to monitoring changes made pursuant to § 64.3(b)(5). A coalition group objected to limiting protection for sources that need to improve their monitoring to the Part 70 permit shield. According to the commenter it is necessary to provide protection to sources that correct deficiencies in monitoring that was originally approved and the rule must provide such protection even where the permitting authority does not make the Part 70 permit shield available. Another commenter agreed that the rule should explicitly provide that an owner or operator conducting monitoring established in a permit is not subject to enforcement action based on a claim that the monitoring fails to satisfy Part 64 because permitting authorities should not be able to choose whether or not to include CAM monitoring requirements under the Part 70 permit shield. One commenter explained that the rule criteria are too general to be an adequate basis for an enforcement action based on an assertion that the monitoring included in the permit fails to satisfy part 64. The commenter added that any correction to a CAM plan should take place through the administrative process.

Response: As mentioned in the preamble to the final rule, the Agency believes that the permit shield can be extended to cover part 64 requirements included in a permit, just the same as any other applicable requirement, to the extent that permitting authorities grant permit shields. The Agency also notes that the permit shield is not an enforcement shield to the use of data generated by part 64 monitoring as credible evidence of compliance with or violations of other applicable requirements. The Agency believes that even if a permit shield is not granted, an enforcement action for inadequate monitoring would be difficult to maintain (absent some evidence of fraud or willful misconduct) given that the monitoring would have been approved by the permitting authority, not vetoed by the

Agency, and not challenged in appropriate form after permit issuance. Thus, the final rule does not contain any explicit provision on this subject.

Letter(s): American Gas Association (VI-D-154); Chemical Manufacturers Association (VI-D-152); Cinergy Corp. (VI-D-141); Clean Air Implementation Project (VI-D-153); Colorado Association of Commerce and Industry (VI-D-182); Coalition for Clean Air Implementation (VI-D-164); Ohio Chamber of Commerce et al (VI-D-160); Pennzoil Company (VI-D-133); Total Petroleum, Inc. (VI-D-190)

3.2.2: Enforceable Indicator Ranges

Comment a: A state agency and an association of state and local authorities argued that critical parameters should be enforceable. One of the commenters stated that having certain enforceable indicator ranges would enable state and local agencies to proceed as they deem appropriate when monitoring data reveal excursions. The second commenter asserted that once the relationship between monitored parameters and actual emissions is established, indicator ranges should be incorporated into the permits as enforceable terms.

Two industry commenters agreed to a limited extent stating that the rule should provide that indicator ranges can be included as independent, enforceable permit terms if the source voluntarily agrees to that approach, which a source might do under suggested provisions designed to avoid corrective action/QIP requirements. However, most industry commenters argued that EPA should limit or delete provisions enabling states to make excursions enforceable. (See related comments in Section 14-Enforcement Concerns.)

Noting that § 64.3(b)(2)(ii)(B) provides that states may declare that deviations constitute enforceable violations "in accordance with the existing authority of the permitting authority" under Part 70, a commenter stated that only in limited circumstances will Title V permits contain enforceable requirements that are not grounded in other substantive programs.

Other commenters argued that EPA does not have the power to make an excursion an enforceable requirement, except insofar as it is an

unexcused violation of an applicable requirement. These commenters asserted that in doing otherwise EPA would be illegally increasing the stringency of the underlying standard or creating new applicable requirements. Another commenter stated that indicator ranges that are not directly used to indicate compliance or noncompliance should not be enforceable.

Several commenters asked that EPA make clear that the authority to establish parametric monitoring levels as independently enforceable applicable requirements must be found in an existing state or federal program and that the parametric monitoring level does not become federally enforceable if the authority is grounded in a state-only requirement. These commenters recommended that EPA establish that permitting authorities cannot rely on Part 70 or state and local periodic monitoring provisions to make indicator ranges enforceable since those Part 70 provisions will be replaced by CAM.

Some industry commenters explicitly recognized that states have the power to be more stringent than EPA and that states asked for the ability to penalize deviations whether or not they are violations. However, these commenters urged EPA to discourage states from taking this approach because penalizing deviations will only result in sources proposing as little monitoring as possible and setting indicator ranges at emission standards. A number of commenters agreed that this approach is inconsistent with the goal of CAM to establish indicator ranges below emission limits to provide an early warning indicator. One commenter recommended eliminating violations associated with excursions and multiple QIPs and specifying that this section does not authorize the use of Title V to change underlying standards or their applicability.

A coalition group argued that including indicator ranges as enforceable terms attempts to directly correlate the indicator monitoring to the applicable requirement which is too similar to the enhanced monitoring rule. Another commenter added that the ability to establish indicator ranges as enforceable requirements based on the design criteria for indicator ranges clearly increases the stringency of underlying requirements. The coalition asserted that if these enforceable conditions are intended to be state-only, the rule should not encourage them because EPA should confine itself to prescribing the necessary federal standards to carry out the law. One commenter added that this concept is

inconsistent with the nature of the monitoring being conducted since the monitoring is useful to identify emerging control problems, not to quantify emissions. Another commenter who argued that the ranges should trigger only corrective action and increased agency surveillance stated that if the indicator range is enforceable, the source is faced with two untenable options: first, it can set the extreme of the indicator range very high so that it will always document emissions above the emission limit, but that range would be too high to satisfy part 64 criteria; alternatively, the source can set the range at the other extreme, but that would lead to an increased stringency problem. This commenter also stated that the concept of setting the range to exactly equate to the emission limit fails to recognize the imprecision in the relationship between the indicators and the emissions.

Response: The Agency believes the commenters' suggestions are included in the final rule. As mentioned in the preamble, parameter indicator ranges can become enforceable limits if proposed by an owner or operator and accepted by a permitting authority. In addition, even though not stated in the rule, permitting authorities always retain any independent authority to establish indicator ranges as enforceable requirements. As mentioned in the preamble and the final rule, the Agency notes that multiple QIPs no longer necessarily constitute a violation.

Letter(s): Air Products and Chemicals, Inc. (VI-D-186); Air Control Techniques, P.C. (VI-D-202); American Automobile Manufacturers Association (VI-D-157); American Gas Association (VI-D-154); Association of Battery Recyclers (VI-D-155); Chemical Manufacturers Association (VI-D-152); Chevron Companies (VI-D-132); Cinergy Corp. (VI-D-141); Clean Air Implementation Project (VI-D-153); Coalition for Clean Air Implementation (VI-D-164); DuPont Engineering (VI-D-127); Exxon Chemical Americas (VI-D-128); General Electric Company (VI-D-156); State of New Jersey Dept. of Environmental Protection (VI-D-204); Ohio Chamber of Commerce et al (VI-D-160); Public Service Company of Colorado (VI-D-219); Southwestern Public Service Company (VI-D-224); Specialty Steel Industry of North America (VI-D-143); STAPPA/ALAPCO (VI-D-179); Steel Manufacturers Association (SMA) (VI-D-144); The Fertilizer Institute (VI-D-145); UCAR Carbon Company, Inc. (VI-D-122); Utility Air Regulatory Group (VI-D-140); Wellman, Inc. (VI-D-237) Wisconsin Electric Power Company (VI-D-130)

Comment b: One commenter stated that it did not understand how, under §64.3(b)(3)), "indicator ranges," or "corrective action," apply to units covered by Subpart C which do not have active control devices.

Response: As mentioned above, subpart C is no longer included in the rule, so this comment is moot.

Letter(s): Utility Air Regulatory Group (VI-D-140)

Section 3.2.3: QIP Period as Deviation/Second QIP as Violation

3.2.3.1: Second QIP as Title V Permit Violation

Comment a: As set out below, many commenters argued that a second QIP in a permit term should not be treated as a Title V permit violation. (See related comments in Section 14 - Enforcement Concerns.)

A commenter stated that the draft rule's approach of turning a second QIP into a violation thwarts the QIP provisions' goal of providing sources with an opportunity to evaluate and resolve problems. Another commenter pointed to EPA's recognition in § 64.10(c) that compliance with a QIP is not a substitute for compliance with underlying applicable requirements and stated that by triggering a QIP, a source may not necessarily be in violation of an underlying applicable substantive requirement, particularly if a source has set its parametric ranges far below the emissions limitation or standard. One commenter specified that exclusions from trigger levels which are 20 percent below the applicable standard should not be penalized. Many commenters agreed that the current scheme encourages sources to establish plans with broad or high indicator ranges to ensure that the ranges will not be exceeded. Others added that QIPs should have a positive effect, not create negative liabilities. Several commenters emphasized that they view the provision establishing a second QIP as a violation as illegal because it effectively increases the stringency of underlying requirements by imposing a new compliance obligation on a source that could be violated even though the underlying emission limits are not violated. A commenter recommended that implementation of a QIP should only be considered a violation of the permit if the emission limitation or standard has also been exceeded. Others asked that permitting authorities be given broad discretion to

determine what if any follow up is appropriate based on the existence of a QIP.

One commenter argued that the approach to counting a second QIP as a violation, in conjunction with the CE rule, places a source in an untenable situation. According to this commenter, if the source sets the indicator levels low it runs the risk of this QIP violation, but if the levels are set closer to the emission limit, the credibility of the data increases and the source's potential liability increases. The commenter added that the combination of the CE rule and the second QIP approach may force an owner to choose an indicator level that is not maintainable or choose between triggering a second QIP or operating at a safe level. The commenter suggest that EPA either abandon the CE rule, or increase the flexibility of triggering a QIP. Another option recommended by the commenter was to require a performance test as a prerequisite for determining a violation or imposing a penalty.

Several commenters argued that it is not necessary to make a second QIP a violation. Commenters who noted that EPA expressed concern at the September 10, 1996 stakeholder meeting that some sources may trigger the QIP requirement and then continuously implement numerous ineffective QIPs argued that EPA's existing large arsenal of enforcement weapons under the Act is sufficient to address this concern and that a source that repeatedly triggers the QIP requirement makes itself an enforcement priority. The commenters added that sources will want to avoid the lengthy QIP process, which requires them to comply with milestones and procedural requirements. One commenter asserted that an agency should require a performance test if it believes a source is exceeding an underlying standard. Another commenter proposed that a source be allowed to "wipe the CAM slate clear" by voluntarily conducting a test.

One commenter stated that there is no need for CAM to attempt to be an all-encompassing enforcement mechanism for defining exactly how sources and permitting authorities will relate to each other and that the second QIP as a deviation approach is inconsistent with the hazardous organic NESHAP which allows multiple "QIPs" to occur. Finally, a commenter argued that the requirement to continue implementing the CAM plan and to take corrective action during the QIP, and the permitting authorities' ability to disapprove a CAM plan as inadequate if the source

cannot show through the QIP that it is adequate, are sufficient to ensure that controls are properly operated and maintained and that the QIP procedure is not overused.

Commenters described the decision to count a second QIP as a violation as unrealistic, counterproductive and possibly illegal. One commenter stated that pollution control equipment can be affected by different factors at different times and that a single QIP should not and cannot be expected to address all of these factors. Therefore, the commenter argued that a second QIP does not necessarily indicate that the first QIP was inappropriate or unsuccessful.

A number of commenters made recommendations to change this provision to increase the number of QIPs allowed. Specific limits on the number of QIPs that should be allowed in a permit term before it is considered a failure to comply with permit terms and conditions ranged from two to ten (with permitting authority to adjust the specified level up or down).

Other commenters focused on differentiating between situations where a QIP should count toward the number allowed and situations where it should not. Commenters stated that the implementation of a QIP during a permit term should not be considered a violation if an applicable emission limit has not been exceeded. One commenter asked that EPA allow at least one "free" QIP in the first year to fix CAM development problems and then allow two or three QIPs for legitimate process or operating changes that may require redefinition of the CAM plan. Another commenter stated that if EPA insists on keeping the second QIP as a trigger of an enforceable violation, excursions that occur while the first QIP is being implemented should not count in determining whether a second QIP is triggered. A commenter recommended that, as an alternative, EPA could allow any operator-initiated QIP to be "free" if the operator notifies EPA prior to exceeding 75 percent of the QIP threshold in order to provide an incentive for early correction. Another commenter stated that EPA should consider allowing a third or fourth QIP before imposing any sanction if: 1) the cause of the second QIP is different from the first one; 2) the permitting authority, at its discretion, determines that the source exhibited a good faith effort but was unable to comply, especially due to initial operational learning curve difficulties; and 3) the second trigger occurred within a transition period specified in the permit.

Similarly, a commenter noted that monitoring system failures could be the result of very different causes, such as sampling equipment plugging, sensor aging, and even seasonal extreme temperatures and recommended using criteria such as "repetitive QIPs for the same or similar failures" and "potential environmental impact" to determine when the triggering of a QIP should be a permit violation.

A commenter argued that since the CAM rule is a new program, there will be insufficient data to establish appropriate indicator ranges in the initial permit for many sources. Similarly, a commenter stated that exceedances of the QIP threshold will be the likely result of the trial and error process of establishing the proper ranges. A state agency commenter argued that the rule should allow for some flexibility to address extenuating and/or unforeseen circumstances and that the second QIP should place a source on notice that further deviations will most likely result in formal action.

A few commenters supported reducing the time period for limiting an owner or operator to one QIP. One commenter suggested changing the time period from the 5 year permit term to three years or less. Two other commenters agreed that a three year time period would be appropriate if EPA does not adopt the option of having the second QIP in a permit term be approved by a permitting authority but not considered an automatic permit violation.

One commenter noted that the monitoring under part 64 for many emissions units may involve complex interrelationships that will have to be fine-tuned, especially in the initial years after startup of the monitoring. The commenter recommended deleting this provision, but stated that, if a set number of QIPs has to be established, the rule should allow the source to propose a reasonable number of QIPs subject to review and approval by the permitting authority.

Another commenter proposed two alternative approaches to dealing with the problems associated with designating the second QIP in a permit term as a permit violation: either eliminating the provisions in § 64.3(b)(4) which make the second QIP a violation or basing the QIP trigger on only true exceedances of an emission limitation or standard. The commenter also suggested a phased in allowance of QIPs per permit term which would allow more QIPs which do not trigger a permit violation in the early years of the first operating permit. According to the commenter this

approach would allow sources to experiment with CAM plans and develop the most appropriate indicator ranges during initial CAM implementation. The commenter added that a similar approach could be employed when changes in source operations require modifications to a source's CAM plan.

One state agency argued that states should have the flexibility to decide when the triggering of a QIP constitutes a violation since they might want to consider a single QIP a violation in some cases while not considering the second QIP a violation in others. Another commenter asked that EPA leave it to permitting authority discretion to determine if any situation resulting in the triggering of a QIP should constitute a violation of the "general duty" or if that duty should not be specifically tied to the QIP process. A few commenters recommended allowing local agencies to determine how many QIPs constitute a violation, based on their existing programs, which may result in the threshold being much higher than two events. They also asked that the provision require for an increased monitoring regime rather than enforcement, and that the increased monitoring regime only be required where the excursions involve significant magnitude (40-60 percent of the indicator range).

Response: The Agency decided to delete the draft requirement that a second QIP during a permit term constitutes a violation. The final rule, consistent with the precedent of 40 CFR 60.11(d), provides for the general use of part 64 data and other information to document that the owner or operator has failed to operate and maintain an emission unit properly and provides for the QIP mechanism as one option for addressing situations in which such a failure has occurred. In that respect, any time a QIP is required there will be an underlying finding that the owner or operator has failed to take appropriate action and may be subject to enforcement for that violation. Thus, there is no need for the final rule to include separate enforcement consequences related to multiple QIPs.

Letter(s): Air Products and Chemicals, Inc. (VI-D-186); Air Control Techniques, P.C. (VI-D-202); American Automobile Manufacturers Association (VI-D-157); Association of Battery Recyclers (VI-D-155); California Association of Sanitation Agencies (VI-D-206); Can Manufacturers Institute (VI-D-181); Can Manufacturers Institute (VI-D-262); Chemical Manufacturers Association (VI-D-152); Chevron Companies (VI-D-132); Class of '85 Regulatory Response Group (VI-D-161); Clean Air Implementation Project

(VI-D-153); Coalition for Clean Air Implementation (VI-D-164); Colorado Association of Commerce and Industry (VI-D-182); Cooperative Power Corporation (VI-D-208); County Sanitation Districts of Orange County, California (VI-D-231); County Sanitation Districts of Los Angeles County (VI-D-232); Department of Energy (VI-D-196); DuPont Engineering (VI-D-127); Duquesne Light (VI-D-138); Eastman Chemical Company (VI-D-173); Eli Lilly Company (VI-D-124); Exxon Company, USA (VI-D-135); General Electric Company (VI-D-156); Hawaiian Electric Company, Inc. (VI-D-165); Houston Lighting & Power Company (VI-D-228); Independent Liquid Terminals Association (VI-D-178); KBN Engineering and Applied Sciences, Inc. (VI-D-229); Minnesota Pollution Control Agency (VI-D-197); Mobil Corporation (VI-D-115); National Environmental Development Association (VI-D-169); Natural Gas Pipeline Company of America (VI-D-118); Ohio Chamber of Commerce et al (VI-D-160); Pharmaceutical Research and Manufacturers of America (VI-D-217); R.R. Donnelley & Sons Company (VI-D-221); Rubber Manufacturers Association (VI-D-149); Southern Company Services (VI-D-171); Southern California Gas Company (VI-D-222); Southwestern Public Service Company (VI-D-224); Specialty Steel Industry of North America (VI-D-143); State of Illinois EPA (VI-D-183); Steel Manufacturers Association (SMA) (VI-D-144); Tennessee Valley Authority (VI-D-162); Texaco Environment Health & Safety (VI-D-199); Texas Chemical Council (VI-D-236); Texas Natural Resource Conservation Commission (VI-D-189); Texas Title V Planning Committee (VI-D-188); Texas Utilities Services, Inc. (VI-D-121); The Society of the Plastics Industry (VI-D-148); The Fertilizer Institute (VI-D-145); Total Petroleum, Inc. (VI-D-190); Tri-TAC (VI-D-225); Utility Air Regulatory Group (VI-D-140); Wellman, Inc. (VI-D-237); Wisconsin Electric Power Company (VI-D-130)

Comment b: A number of commenters stated that in lieu of considering the second QIP as a violation, the permitting authority should be able to require that it be implemented only through an approval process and include an enforceable schedule with specific milestones and completion dates. One commenter argued that although it is not really necessary for the reasons discussed in other points, an approval process for subsequent QIPs would be preferable to considering the second QIP to be a violation. A state agency and other commenters also supported this alternative noting that other proposed options may hinder permitting authorities from taking

appropriate enforcement actions other than the implementation of a QIP to respond to deviations.

One state agency expressed opposition to option of implementing a facility's second QIP in a permit term through a permitting authority approval process. This commenter felt that requiring state review of QIPS would delay needed corrective action and strain limited state resources since the procedure which a facility would have to follow to develop a plan, obtain state approval after review and negotiation, and implement the plan could take as much as 18 months. The commenter argued that facility efforts would be better spent by actually taking corrective action, following the procedures laid out in the QIP requirements, instead of complying with bureaucratic requirements. According to the commenter state resources would also be poorly utilized in a step-by-step review of corrective action which should be quickly resolved through a site-specific technical process. This commenter suggested that states should retain the ability to enforce permit terms as necessary to ensure that QIP requirements are followed and should become directly involved in the QIP process only where serious violations are connected to problems which will require long-term and complex corrective action.

Response: The Agency agrees that the permitting authority should have more flexibility in determining appropriate response to persistent or acute compliance problems. Because of this, EPA has decided not to include the provisions regarding the QIP as a required response or the violation associated with the second QIP in the final rule. No further response to these comments is necessary.

Letter(s): Department of Energy (VI-D-196); Georgia Department of Natural Resources (VI-D-193); State of New Jersey Dept. of Environmental Protection (VI-D-215); Niagara Mohawk (VI-D-168); Specialty Steel Industry of North America (VI-D-143); Steel Manufacturers Association (SMA) (VI-D-144); Tennessee Valley Authority (VI-D-162)

3.2.3.2: QIP Period as Deviation

Comment a: A number of commenters stated that the period of time necessary to implement a QIP should not be considered an ongoing deviation. A few commenters argued that since both the permitting authority and the

owner/operator believed that the initial CAM plan was based on valid assumptions, the QIP process of evaluation and corrective action can be expected to take some time. These commenters believed that period of time should not be considered a deviation where the owner/operator acts quickly and in good faith to implement a revised CAM program. Other commenters added that these requirements will discourage sources from creating aggressive CAM plans that might result in QIPs. A commenter concluded that by implementing a QIP, the source is doing exactly what is intended, i.e., detecting potential problems and then fixing them. The commenter stated that reporting the period of time during a QIP as a deviation applies a negative and potentially misconstrued label to appropriate behavior.

Two commenters argued that the triggering of a QIP does not necessarily mean that the source is experiencing compliance problems. In addition, they stated that triggering the QIP already exposes a source to greater scrutiny, and therefore there is no need to repeat that concern as an exception to compliance in a certification. Commenters noted that the duration of excursions which triggered a QIP may already be identified as part of a QIP. A few commenters argued that only those periods of time during a QIP in which true exceedances occur should be identified as exceptions to the compliance certification. Similarly, others stated that a source should only report as a deviation any period during implementation of a QIP that the source is outside established indicator ranges. One commenter argued that once the deviation is corrected, there is no basis for requiring the owner or operator to report the remaining period of time during QIP implementation as a deviation.

Response: The final rule better describes the QIP two-part process that includes both an evaluation step and the corrective action necessary. The final rule provides that a QIP trigger may be set in the permit but does not require it. Where such a trigger is used, a level of 5 percent is suggested as a potentially appropriate threshold. The status of compliance during a period of a QIP is left to the permitting authority's discretion.

Letter(s): Air Control Techniques, P.C. (VI-D-202); American Automobile Manufacturers Association (VI-D-157); American Gas Association (VI-D-154); Can Manufacturers Institute (VI-D-181); Cinergy Corp. (VI-D-141); Colorado Association of Commerce and Industry (VI-D-182); Coastal Corporation (VI-D-123); Eli Lilly Company VI-D-124); General Electric

Company (VI-D-156); Houston Lighting & Power Company (VI-D-228); National Environmental Development Association (VI-D-169); Southern Company Services (VI-D-171); Specialty Steel Industry of North America (VI-D-143); State of Illinois EPA (VI-D-183); Steel Manufacturers Association (SMA) (VI-D-144); Utility Air Regulatory Group (VI-D-140); Virginia Power (VI-D-226)

3.2.3.3: Requests for Clarification

Comment a: An environmental organization asked that EPA specify how the provision regarding multiple QIPs in a reporting period may be used in certain circumstances. The commenter questioned whether a source that has a continuous excursion for 10 percent of its operating time will be treated as only having gone beyond the QIP threshold once. This commenter also stated that the result of this is that the source has no incentive to bring their parameters back into the appropriate range quickly once they have entered a QIP. The commenter concluded that without clear criteria and state resources for review, the provision for finding a source that requires a second QIP within the reporting period to be in violation is only another reason for sources to design lenient CAM plans that will detect no excursions.

Response: The Agency believes that the final rule adequately describes the criteria for establishing indicator ranges. The final rule provides for no specific duration trigger and provides that a QIP is an enforcement tool, rather than a specific permit requirement, that may be required after a determination by the permitting authority or the Administrator that a source owner or operator has failed to conduct proper operation and maintenance as documented through part 64 monitoring and other available information. In this respect, the QIP provisions are analogous to existing corrective action remedies available to address compliance problems.

Letter(s): Natural Resources Defense Council (VI-D-151)

Comment b: One commenter stated that it should be clarified that excursions occurring during the implementation of the first QIP should not be considered to trigger the need for a second QIP.

Response: The QIP process has been provided in the final rule only as an option and thus no further response to this comment is necessary.

Letter(s): Virginia Power (VI-D-226)

Comment c: A commenter asked how, under § 64.3(b)(4), QIPs apply to units covered by Subpart C. The commenter stated that it did not understand how an owner or operator would establish a QIP threshold, or implement a QIP, for a recordkeeping requirement or for a PSEU for which no monitoring has been required under Subpart C.

Response: The Agency agrees that the QIP process as described in the final rule is not readily applicable if no part 64 monitoring or other monitoring information is available. As the final rule no longer includes specific monitoring requirements for subpart C units, further response on this point is unnecessary.

Letter(s): Utility Air Regulatory Group (VI-D-140)

3.2.4: Permit Modification - Deficient Monitoring (64.3(b)(5))

Comment a: Some commenters stated that sources should not be required to notify the permitting authority and modify CAM if deviations occur that are not detected by CAM. These commenters interpreted this requirement as imposing an unending, standardless duty on sources to monitor the adequacy of their approved monitoring, and to propose changes based on any deviation, no matter how small, inconsequential or uncorrelated to actual compliance the deviation may be. Others stated that the requirement to notify the permitting authority of deviations under CAM is duplicative of part 70 notice requirements. A commenter argued that this requirement allows for no analysis of the cause of deviations, which may not even be violations of applicable requirements, and requiring immediate modification of the monitoring plan eliminates source and permitting authority flexibility to determine the proper approach to the deviation or indicator range discrepancy. Addressing such problems during permit renewal would allow for a more calculated response which may make use of new or innovative technology developed in the interim according to the commenter.

One local permitting authority argued that permit revisions required under § 64.3(b)(5) should be treated as administrative permit revisions which would prevent delays in the use of correct monitoring methods.

A commenter opposed having to process indicator range changes as permit revisions arguing that the concept of CAM should be to assure compliance with Title V applicable requirements, not create new ones. (See related comments under section 3.2.1.)

Two commenters were concerned that the obligation to tighten CAM plans appears to make it harder to loosen CAM requirements than tighten them, even where there is no technical justification to do so. The commenters argued that the rule must allow a source to modify its approved monitoring if the initially established indicator ranges are too stringent (e.g., if testing shows that no violation occurs at less stringent indicator ranges).

Response: As mentioned in Section II.F. of the preamble to the final rule, the Agency disagrees with the commenters' suggestions to not require notification of the permitting authority and modification of CAM if deviations occur that are not detected by part 64 monitoring. The final rule clarifies this requirement, however. First, the rule requires notice and proposed monitoring modifications if an owner or operator discovers a failure to meet an emission limitation or standard if that failure was not detected by part 64 monitoring during a period in which the monitoring was providing valid data. Similarly, where compliance method testing indicates the need to revise indicator ranges, notice will be required. A permit modification will be required unless the permit specifies the process by which indicator ranges will be adjusted based on compliance testing. Both of these situations represent clear deficiencies in approved monitoring that must be corrected to achieve the reasonable assurance of compliance intended by part 64.

Letter(s): American Automobile Manufacturers Association (VI-D-157); Coalition for Clean Air Implementation (VI-D-164); DuPont Engineering (VI-D-127); General Electric Company (VI-D-156); Ohio Chamber of Commerce et al (VI-D-160); South Coast Air Quality Management District (VI-D-233); Texas Chemical Council (VI-D-236); UCAR Carbon Company, Inc. (VI-D-122)

3.2.5: Compliance Schedule

Comment a: Some commenters supported EPA's decision not to require monitoring to be operational at the time it is approved. One commenter commended EPA for recognizing both that sources do not wish to invest substantial resources into complex, expensive monitoring until they know it has been approved by the permitting authority, and that monitoring protocols may require time to install and shake down. Other commenters recommended that the rule provide explicitly for a shakedown period. They stated that monitoring equipment, just like all other equipment, may need a shakedown period (such as 30 days) to assure that the equipment is working properly, and that § 64.8(e) should specifically allow for this type of shakedown period.

A commenter suggested that EPA delete the reference to enforceable milestones, which EPA did not include in the Part 63 General Provisions. A commenter stated that the § 64.8(e) requirement to submit an implementation plan and schedule for the installation and testing of monitoring is unnecessary because notification to permitting authorities prior to the installation or testing of monitoring is generally required, and there is no justification for making this requirement more stringent than other post-1990 CAA regulations. The commenter asked that EPA clarify that this provision does not require documentation of implementation and testing activities for existing monitoring, and recommended deleting the phrase "or other appropriate activities" because it is overly vague. Another commenter who objected to the use of enforceable compliance plans suggested that sources who lack adequate data should be allowed to collect data for one year, or some other reasonable period, before indicator ranges are set.

A commenter recommended that sources be required to implement CAM at the next scheduled shutdown where implementation involves the need for shutdown. The commenter stated that requiring a plant shutdown just to install and startup CAM is not economically justified and could cause environmental impact associated with an additional startup and shutdown.

One commenter stated that EPA should provide a mechanism for altering the schedule without a permit modification since unexpected problems can arise such as where "final verification" shows that changes are necessary or installation is delayed because parts are unavailable.

Because the normal permit modification process will be far too slow and cumbersome to provide relief, this commenters believed that a simple and quick process such as sending a letter to the permitting authority is needed.

Response: The Agency believes that the period, allowed by the final rule, of up to 180 days beyond the date of permit issuance, should fulfill the commenters' suggestion for a monitoring installation and shakedown period. The Agency disagrees with the commenter's suggestion that the reference to enforceable milestones should be deleted, since they are a necessary part of the part 70 operating permits program. Finally, the Agency believes that the phased-in implementation of part 64 should meet the commenters' suggestions for an orderly implementation process.

Letter(s): Air Products and Chemicals, Inc. (VI-D-186); American Automobile Manufacturers Association (VI-D-157); Chemical Manufacturers Association (VI-D-152); Dow Chemical Company (VI-D-120); General Electric Company (VI-D-156); National Environmental Development Association (VI-D-169); Texas Chemical Council (VI-D-236); Union Carbide Corporation VI-D-170)

Section 3.3: Operation of Monitoring

Comment a: An industry coalition and another commenter recommended deleting the requirement of § 64.3(c)(3) that all data gathered must be used for CAM purposes except data recorded during periods of monitor malfunction, maintenance, etc. These commenters stated that rule writers and permitting authorities routinely make special allowances for infrequent fluctuations in operations, and that EPA should not use CAM to override a unit's alternative compliance plans or excused emissions excursions.

Response: The Agency disagrees with the commenters' suggestion that some valid data not be used in assessing the operation of the control devices and associated control systems. This suggestion has not been incorporated in the rule, although, as mentioned before, the language in § 64.3(c)(3) of the 1996 part 64 Draft has been moved to § 64.7(c) of the final rule. The issue of how to evaluate the data based on the reason for any reported excursion or exceedance is separate from the issue of what data to include in data averages.

Letter(s): Clean Air Implementation Project (VI-D-153); Eastman Chemical Company (VI-D-173)

Comment b: Other commenters recommended various revisions to § 64.3(c)(3). A commenter noted that the rule exempts periods of monitor maintenance and QA activities "requiring the monitoring to be idle," pointing out that monitors are not always idle during QA activities (e.g., during calibrations). The commenter suggested using a different criterion, such as activities that "temporarily prevent the monitoring of source emissions or parameters." Another commenter added that the provision in § 64.3(c)(3) which requires the source to operate the monitoring in accordance with its design is open-ended and undefined, and should be deleted.

Response: The final rule refers specifically to calibration checks and, if applicable, zero and span adjustments. This provision is consistent with existing provisions such as § 60.13(e).

Letter(s): Coalition for Clean Air Implementation (VI-D-164); Utility Air Regulatory Group (VI-D-140)

Comment c: One commenter argued that the rule should also not require monitoring during startup, shutdown, or malfunction, explaining that such a revision would reflect many regulations, such as recent NSPS and MACT standards, which specifically exempt compliance with the standards during such periods. A commenter requested that data collected during malfunctions and especially those collected during startup and shutdown not be used for part 64 because these emissions are not representative of the actual operation conditions. A commenter added that data for these conditions should not be used for calculating data averages unless the underlying requirement requires compliance during such periods.

Response: As discussed in Section III.G.1 of the preamble to the final rule, the Agency disagrees with comments that the rule exempt the source owner or operator from having to conduct monitoring during periods when the source is not required to comply with the underlying standard. Owners and operators remain responsible for operating and maintaining their sources in accordance with good air pollution control practices for

minimizing emissions during all periods of operation - including conditions such as startup and shutdown. Data from part 64 monitoring is essential to evaluate adherence to that responsibility.

Letter(s): Air Products and Chemicals, Inc. (VI-D-186); County Sanitation Districts of Orange County, California (VI-D-231); Texas Chemical Council (VI-D-236)

Comment d: One commenter was concerned with the use of data collected during monitoring breakdowns, periods of invalid data, repairs, maintenance periods, and calibration checks and adjustments that require the monitoring to be inoperable. The commenter stated that under § 64.3(c)(2) and (3), data collected during such periods cannot be used for part 64 purposes, including data averages or for satisfying a data availability requirement. The commenter concluded that part 64 should be amended to explicitly state that data collected during such times or under such conditions cannot be used for enforcement purposes.

Response: The Agency disagrees with the commenter's suggestion. While use of data collected during the identified periods may not be useful for purposes of part 64, neither the owner or operator nor the Agency, as noted in the credible evidence discussion of the preamble, is precluded from using any data collected for other purposes. However, as a practical matter, the ability to use invalid data to document compliance or a violation will be severely limited because of the poor reliability of any such data.

Letter(s): Wellman, Inc. (VI-D-237)

Comment e: A commenter recommended the creation of provisions allowing extra time for the repair of monitoring systems. The commenter stated that at an operating plant repairs of certain monitoring systems may require shutdown of major equipment, and suggested that like the Ozone Depleting Substance (ODS) rule, the CAM rule should allow extra time to get monitoring systems repaired.

Response: The Agency believes the final rule allows owners or operators flexibility where needed to repair monitoring systems, and therefore disagrees with

the commenter's suggestion. While the rule requires owners or operators to maintain necessary parts for routine repairs of monitoring equipment, the rule also allows restoration of pollutant-specific emissions unit operation to normal or usual manner of operation as expeditiously as practicable and establishment of compliance schedules with enforceable milestones for installation, testing, and verification of new monitoring systems which may be needed if existing monitoring systems cannot be repaired.

Letter(s): Occidental Chemical Corporation (VI-D-166)

Comment f: One commenter described this requirement as more objective than the previous draft which it argued gave undue weight to manufacturer's requirements. However, several other commenters recommended deleting or modifying the general duty to properly operate and maintain monitoring in § 64.3(c)(2). Some commenters argued that this is yet another enforceable requirement for which the owner or operator could be in violation even though the owner has not violated any underlying substantive requirement. The commenters added that this requirement is arbitrary because there is no standard against which compliance can be judged. A commenter specified that the requirement to maintain spare parts on site is especially troubling because it runs counter to just-in-time inventory approaches and sources may not have adequate storage for such parts. Another commenter agreed that the requirement to maintain spare parts should be deleted because it is the source's obligation to assure compliance and how a source operates and maintains its equipment to achieve compliance is best left to the source. One commenter stated that the requirement to maintain and operate "monitoring" in a manner consistent with "good air pollution control practices" does not make sense, because monitoring is not an air pollution control device. The commenter suggested that different language should be used in this context.

Response: The Agency disagrees that proper operation or maintenance of monitoring is not a substantive activity, particularly with respect to assuring compliance. The requirement for proper operation (as opposed to maintenance) of monitoring has been removed from § 64.7(b) of the final rule (the provision analogous to § 64.3(c)(2) of the 1996 part 64 Draft), not because such a requirement is irrelevant, but because continued

operation of monitoring is addressed in § 64.7(c). The Agency agrees that on-site storage of spare monitoring parts could be viewed as overly restrictive, so that requirement has been removed from the rule. Instead the rule contains a duty to maintain parts - without a required location for those parts - for routine repairs to monitoring systems. Parts for routine repairs could be maintained on-site, off-site, or even through contracts with third-party vendors.

Letter(s): American Automobile Manufacturers Association (VI-D-157); American Gas Association (VI-D-154); General Electric Company (VI-D-156); Ohio Chamber of Commerce et al (VI-D-160); UCAR Carbon Company, Inc. (VI-D-122); Utility Air Regulatory Group (VI-D-140)

Comment g: One commenter supported including statements that monitoring is not required during certain specified periods. The commenter argued that although it may seem self-evident, it has not been universally recognized under other regulations that monitoring is not required during periods of non-operation, and this should be clearly stated rather than implied. The commenter also stated that EPA should provide that CAM monitoring is not required when monitoring is not required by the underlying emission standard. The commenter argued that HON and recent MACT standards provide that emission control requirements including monitoring do not apply during start-up, shutdown and malfunction, and that owner/operators are required to follow start-up, shutdown, malfunction plans instead. The commenter stated that the CAM rule should not increase stringency by taking away this kind of flexibility noting that new MACT standards will not be required to comply with CAM, but that this concept is probably not unique to Part 63. The commenter added that EPA should go one step further and provide that CAM-type monitoring is not required during start-up, shutdown, and malfunction generally. The commenter objected that situations for which the draft rule does not require monitoring as described in § 64.3(c)(3) deal only with problems with the monitoring system.

Response: Section 64.7(c) explicitly states that monitoring need only be conducted when the emissions unit is operating. However, as discussed in response to Comment c, above, the Agency disagrees with not requiring monitoring during start-up, shutdown or malfunction periods.

Letter(s): Dow Chemical Company (VI-D-120)

Section 3.4: Existing Monitoring

Comment a: A commenter supported EPA for establishing a process by which CAM monitoring can replace existing monitoring. The commenter explained that sources have widely recognized that instances exist where the information produced by required monitoring could be generated equally well or better by alternative approaches and that this provision of the CAM proposal allows sources to make that demonstration. Another commenter, however, argued that the process for reviewing existing monitoring to determine if it meets CAM requirements is burdensome. The commenter noted that sources are required to review existing monitoring on a pollutant-specific and on an emission unit-specific basis, and that since CAM plan elements are included in Title V permits, states will then have to review each determination during the permitting process. This commenter stated that even with suitable guidance materials, this will put a great burden on states given their limited resources.

Response: The Agency believes the ability to streamline multiple monitoring requirements, as expressed in the revision to § 70.6(a)(3)(i)(A), will tend to reduce, rather than increase, the monitoring development and operation burden for permitting authorities and owners or operators. Should permitting authorities find that their review burden exceeds the resources derived from emission fees, permitting authorities are able to increase their fees to cover any extra expenses.

Letter(s): Chemical Manufacturers Association (VI-D-152); Pharmaceutical Research and Manufacturers of America (VI-D-217)

Comment b: Some utility commenters stated that units using existing monitoring to satisfy CAM rule requirements should be able to refer to existing documents and protocols in their operating permits instead of creating duplicative documentation to satisfy CAM requirements. In particular, they argued that units which are subject to Part 75 emissions monitoring requirements must develop specific QA/QC plans and maintain monitoring data in certain formats, and that if such units use Part 75 monitoring requirements to demonstrate compliance with non-Acid Rain standards,

information and procedures developed to satisfy Part 75 should not have to be recreated in a different format to satisfy Part 64. These commenters stated that requiring the reformatting or recreation of this information would violate Executive Order 12866, directing federal agencies to "avoid regulations that are . . . duplicative with [their] other regulations or those of other Federal agencies." E.O. 12866, 58 Fed. Reg. 51,735 (Sept. 20, 1993). One commenter added that the rule should not be permissive in regard to the sufficiency of Title IV CEMS for CAM purposes, but should explicitly state that this monitoring fulfills CAM requirements.

A commenter raised the question of whether CAM plans should be developed based on the more rigorous requirements. The commenter requested that CAM give the permitting authority the flexibility to decide which level of monitoring is required that is consistent with the federal and State rules. For example, where CEMS are not required but have been installed anyway, the facilities should be able to evaluate and implement alternative monitoring systems such as PEMS according to this commenter.

Response: The Agency agrees that existing monitoring requirements are an appropriate starting point for CAM development. The Agency notes that part 64 does not preclude use of references to existing monitoring documentation and that the part 64 requirements do not apply to Acid Rain Program requirements. The Agency disagrees with the commenter's suggestion that an owner or operator has the ability to propose monitoring different than required CEMS, COMS, or PEMS. As mentioned in the preamble to the final rule, use of monitoring systems such as CEMS, COMS, or PEMS is preferable for CAM because they provide data directly in terms of the applicable emission limitation or standard. A request to use an alternative monitoring system in these circumstances must be made through the procedures contained in the underlying applicable requirement, not part 64.

Letter(s): Cooperative Power Corporation (VI-D-208); County Sanitation Districts of Orange County, California (VI-D-231); Duquesne Light (VI-D-138); Southwestern Public Service Company (VI-D-224)

Section 3.5: Costs to Permittees/Programmatic Option

3.5.1: Problems with Case-by-case Review

Comment a: A number of commenters stated that EPA should minimize the need for case-by-case review. Commenters cited the great resource burden on state and local air agencies that will be associated with case-by-case review of CAM plans. Two commenters pointed to EPA's decision to exempt post-1990 rules as already satisfying CAM requirements, stating that EPA has recognized that a one-time regulatory program review is preferable to the more time-consuming case-by-case review.

One commenter argued that industry continues to believe that the best solution is for EPA to implement the CAM rule through individual rules as EPA has implemented monitoring in the past. The commenter stated that EPA has not shown that the case-by-case approach is less burdensome, permitting authorities do not have the resources to do it, and the case-by-case approach fails to provide similar treatment for similar sources or allow for consideration of stringency issues. Another commenter stated generally that if EPA believes that current rules are inadequate, EPA should revise the underlying rules. This commenter asserted that at a minimum, if EPA proceeds with CAM, it should repeal existing monitoring.

Commenters were concerned that CAM plan review cannot be done properly considering limited resources. A commenter argued that state and local agencies do not have the resources to become expert in and evaluate operations at the large number of sources subject to the rule. The commenter questioned where permitting authorities will find personnel who are technically competent for this task and whether Title V permit fees will be sufficient to cover the costs associated with this job. An environmental organization added that even assuming that uncorrelated parameter measurements could be adequate, permitting authorities do not have the time and resources needed to review sources' proposals. A California commenter expressed concern that local air pollution control districts will lack the resources necessary to implement CAM. This commenter referred to the comments of Texas representatives at the September 1996 stakeholder meeting who estimated that Texas, for example, has approximately 3,000 major sources and will have to negotiate the approval of approximately 300,000 CAM plans. The commenter stated that with the resources of local agencies will be committed to CAM implementation, important and innovative local air quality improvement efforts may be abandoned. An association of state

and local agencies and a local agency added that dividing sources into several "enforcement categories" according to the current level of monitoring would simplify review and reduce the resource burden.

Response: The final rule allows permitting authorities the flexibility to develop programmatic rule changes for CAM implementation. The Agency believes the use of such programmatic approaches could minimize permitting authorities' resource burden associated with case-by-case review. In addition, the Agency believes that the amount of time spent on case-by-case review will decrease as permitting authorities develop expertise with CAM rule requirements and commonly used control devices. See Section I.C.2.d. of the preamble to the final rule for further discussion.

Letter(s): American Public Power Association (VI-D-158); Cinergy Corp. (VI-D-141); City of Jacksonville AWQD (VI-D-272); County Sanitation Districts of Los Angeles County (VI-D-232); Institute of Clean Air Companies (VI-D-139); National Environmental Development Association (VI-D-169); Natural Resources Defense Council (VI-D-151); Southern California Gas Company (VI-D-222); STAPPA/ALAPCO (VI-D-179); STAPPA/ALAPCO (VI-D-274); Texas Title V Planning Committee (VI-D-188); Texas Chemical Council (VI-D-236)

Comment b: Several commenters supported the use of programmatic rulemaking to establish CAM requirements in order to avoid problems of consistency and the potential overwhelming of the Title V program associated with case-by-case review of CAM plans. Commenters stated that permitting authorities should have the option to implement CAM on a rule-by-rule programmatic basis. One commenter noted that EPA has taken a programmatic approach for other programs through SIPs. According to one state commenter, in addition to reducing the resource burden, the programmatic approach provides the following benefits: a minimized burden on the Title V permitting process, more efficient EPA and public review, a greater consistency in determining what constitutes compliance with CAM, improved air quality planning, improved clarity and certainty of enforcement, and a more timely compliance with CAM requirements. In supplemental comments, this state agency renewed its support for a programmatic approach citing the increased pressure that the CE rule would place upon case-by-case negotiations. Other commenters argued

that no compliance assurance program is necessary, but that if one is to be promulgated, a one-time programmatic approach would be far more administratively efficient than thousands of case-by-case reviews of individual CAM plans.

Response: See response to Comment a, above.

Letter(s): American Automobile Manufacturers Association (VI-D-157); ASARCO Incorporated (VI-D-187); Chemical Manufacturers Association (VI-D-152); County Sanitation Districts of Los Angeles County (VI-D-232); Gas Processors Association (VI-D-163); General Electric Company (VI-D-156); Louisiana Mid-Continent Oil and Gas Association (VI-D-184); Phillips Petroleum Company (VI-D-131); Texas Title V Planning Committee (VI-D-188); Texas Natural Resource Conservation Commission (VI-D-189); Texas Natural Resource Conservation Commission (VI-D-256)

3.5.2: Programmatic Option

Comment a: Commenters supporting a programmatic option argued that this means of implementation would be superior to case-by-case review. They stated that such an approach would be substantially less costly, to both permitting authorities and the regulated industry, than a case-by-case approach. In addition, administrative resources will be further conserved because a programmatic approach allows states to build on existing programs rather than creating needlessly duplicative programs to satisfy CAM. Other commenters agreed that the programmatic approach would decrease the likelihood of redundant programs. The commenters noted that some permitting authorities have developed source-specific regulations that address all aspects of compliance monitoring and they recommended allowing permitting authorities to implement CAM by modifying their existing rules. One commenter stated that, for example, the source-specific rules that are already adopted in the SIP should meet CAM requirements without having to develop separate source-specific CAM plans. Another commenter cited the comprehensive program in Texas that requires sources to conduct proper O&M of control devices to assure compliance as an example of an existing program where adding further case-by-case requirements would not be cost-effective. The commenter added that where state programs are determined not to be

fully effective for meeting CAM requirements, states should be given time to fill gaps in their programs.

A few commenters argued that the programmatic approach allows states more flexibility, both to incorporate existing SIP provisions and to choose which approach of implementing CAM best suits the individual state and will be most likely to satisfy CAM objectives. They noted that this flexibility is consistent with the CAA's granting of primary responsibility for air quality control to the states. One of the commenters asserted that by allowing necessary improvements to occur by rule, EPA would be improving the SIP process itself: the SIP credit achieved by additional compliance assurance measures is far more easily quantified if accomplished by rule than by each individual permit, thus greatly enhancing overall air quality planning.

The commenters estimated that it will take states at least three years to fully revise Part 70 programs to reflect CAM when finalized, and another five years before CAM plans can be incorporated into all necessary individual permits. They argued that a state CAM plan, which would be based on existing programs, could be developed more quickly and would apply to all sources once effective. The commenters added that it will be easier for the public to participate in the development of a single programmatic "State CAM plan" than to attempt to oversee the development of individual CAM plans in multiple permits.

A commenter stated that the programmatic approach eliminates the need to establish the relationship between monitored parameters and emission limits at every source which is one of the most problematic aspects of the CAM proposal. By eliminating this requirement while still providing a reasonable assurance of compliance, the commenter argued that the programmatic option will be more successful at achieving the goals of the CAM program.

Response: The Agency agrees with many of the commenter's suggestions. As mentioned in Section I.C.2.d. of the preamble to the final rule, permitting authorities are not precluded from utilizing programmatic approaches for part 64 implementation. The preamble also states that current monitoring can be used for CAM purposes, to the extent that the current monitoring meets the part 64 criteria. However, as discussed in the preamble, the Agency does not agree that additional time, beyond that included in the

final rule's implementation schedule, is warranted, including additional time for filling gaps in permitting authorities' programs.

Letter(s): ASARCO Incorporated (VI-D-187); California Association of Sanitation Agencies (VI-D-206); County Sanitation Districts of Los Angeles County (VI-D-232); County Sanitation Districts of Orange County, California (VI-D-231); DuPont Engineering (VI-D-127); Texas Title V Planning Committee (VI-D-188); Texas Chemical Council (VI-D-236); Tri-TAC (VI-D-225)

Comment c: Several commenters proposed or supported a specific programmatic approach to implementing CAM. One commenter recommended revision of the CAM rule to allow each state to submit a "State CAM plan" under which the state would have to demonstrate that its overall programs achieve Part 64's general objectives. One commenter stated that if CAM is to go forward, it specifically supported the above commenter's approach. Other commenters agreed that such an approach would attain equivalency of environmental results, without the added bureaucracy associated with the draft rule.

Some commenters provided detailed discussion of what a "State CAM plan" might contain. These commenters noted that TNRCC rules already have a compliance assurance monitoring process which includes the following: a requirement to properly operate and maintain control devices; a requirement to report any control device failures or discrepancies which might result in exceedances; the potential for excessive discrepancies to lead to enforcement or the requirement to undertake specific corrective action plans; and an incentive to report all possible discrepancies. The commenters added that TNRCC's on-site compliance investigation program allows TNRCC to identify rules which need to be revised to remain consistent with the goals of CAM. One of the commenters pointed out that many other states have similar programs, as recognized by EPA's statement that many states have malfunction abatement plans similar to the CAM requirements.

A commenter expressed its belief that applicable requirements already include the monitoring necessary to identify discrepancies under a state CAM plan, especially since EPA has the authority to call for SIP rule revisions if existing rules do not include sufficient monitoring

requirements. However, the commenter did support a review of monitoring-related provisions as part of a State CAM plan demonstration as long as such review would not include rules applicable to sources in attainment areas, post-1990 rules, NSPS and NESHAPs, and minor NSR-based permit terms.

One state agency provided a detailed proposal outlining a programmatic approach wherein a permitting authority would conduct an analysis of SIP rules and federal rules, would demonstrate to EPA that the monitoring requirements for certain emission limitations already satisfy CAM, and would either conduct state rulemaking or case-by-case reviews for those SIP and federal rules which do not themselves meet the goals of CAM. The commenter recommended that a permitting authority's programmatic submittal include three major elements: an evaluation of the general regulatory framework relative to an emission limitation, and an evaluation of applicable requirement monitoring and a prioritized schedule of less than 5 years. The commenter suggested that the schedule and evaluation of monitoring include consideration of relative environmental significance. This commenter provided an outline of such a submittal from its state and an implementation schedule along with proposed criteria for EPA review of state proposals, and a hammer provision requiring states that do not complete development of their programmatic approach as specified to revert to case-by-case determinations. The commenter also recommended that EPA continue to review all federal regulations proposed before November 15, 1990 to narrow the list of rules for which CAM plans must be developed enabling states employing the programmatic approach to conduct state rulemaking for those federal rules which do require CAM plans. Other commenters supported the approach described. One commenter added that the CAM program should not be part of the title V program at all because it will place too large a burden on that program.

Response: As mentioned above, the final rule allows permitting authorities the flexibility to utilize programmatic approaches for CAM implementation. The preamble also mentions that current monitoring requirements can - and should - be used for CAM purposes, to the extent that the current monitoring meets the part 64 criteria. The Agency agrees that many of one commenter's suggested approaches, including use of an on-site compliance investigation program, could have value in assuring compliance. However, the Agency does not believe that permitting

authority initiated activities, such as the on-site compliance investigation program, either satisfy the monitoring requirements of the Act or are as effective in assuring compliance as owner or operator initiated activities, such as developing, operating, and maintaining monitoring for pollutant-specific emission units.

Letter(s): Arizona Mining Association (VI-D-150); ASARCO Incorporated (VI-D-187); Gas Processors Association (VI-D-163); Louisiana Mid-Continent Oil and Gas Association (VI-D-184); Texas Chemical Council (VI-D-236); Texas Natural Resource Conservation Commission (VI-D-189 and 265); Texas Title V Planning Committee (VI-D-188); Texas Utility Services, Inc. (VI-D-121)

Section 3.6: Information for Permitters

Comment a: An association of state and local authorities recommended that the rule require sources to provide specific minimum information to permitting authorities. The commenter stated that the review, approval, and implementation of CAM plans will involve significant resources and that permitting authorities will need baseline unit-specific information to make the case-by-case review process possible. Therefore, the commenter recommended that the rule require this critical minimum amount of information, such as operating ranges for the source and its control equipment, and choice and frequency of monitoring, to be inserted into Title V permits. An environmental organization argued that the burdens imposed on permitting authorities by the rule are exacerbated by the lack of restrictions on the quality of sources' proposals or their supporting data. The commenter argued that without needed restrictions on the type of information submitted, each proposal will be unique and permitting authorities will have to evaluate them as such. As a result, many proposals are likely to be approved simply because permitting authorities do not have the resources to question them according to this commenter.

Response: The Agency believes that the final rule's monitoring design criteria and submittal requirements meet the commenters' suggestions by providing with specificity the minimum information concerning permit contents and the necessary restrictions on monitoring system proposals.

Letter(s): Missouri Department of Natural Resources (VI-D-260); Natural Resources Defense Council (VI-D-151); STAPPA/ALAPCO (VI-D-179)

Comment b: Commenters argued that EPA must provide clear guidance on what constitutes Subpart B monitoring and what constitutes Subpart C monitoring. One of the commenters stated that companies will not know if existing monitoring satisfies CAM or whether they have submitted sufficient proposals where new monitoring is required. The commenter added that even with the inclusion of choice of monitoring in the permit shield, permit negotiation is a daunting task for states and sources and a clear standard is needed for companies to appeal monitoring determinations or to discuss with permitting authorities the factors that should be considered in making a reasoned decision. The commenter further stated that EPA is obligated to provide sources and states with fair notice as to what constitutes approvable monitoring under Title V and section 114(a)(3) since without such clarification states will be able to create any requirement and impose it as a matter of federal law which was not intended by section 114(a)(3). Cites General Electric Co. v. EPA, 53 F.3d 1324, 1328-29 (D.C. Cir. 1995). This commenter also noted that companies and states will not know what constitutes federally required monitoring and what should be designated a state-only requirement in the permit. Finally, the commenter recommended rule language changes intended to clarify that the "reasonable assurance of compliance" standard involves considering a variety of factors as opposed to focusing solely on the level of emissions information obtained by a particular methodology.

Another commenter was concerned that without clearer guidelines from EPA, state permitting authorities will be likely to take a conservative approach in implementing the CAM program, and such an approach likely will not be the least cost alternative for the source owner. The commenter argued that states can not be expected to devote significant resources to small units, and will also be reluctant to jeopardize federal approval of the SIPs by giving special treatment to small units which may subject small sources to a disproportionately large burden.

Response: As mentioned above, the Agency believes the final rule language specifies minimum acceptable requirements for pollutant-specific emissions units covered by what the August 1996 draft referred to as

subpart B. As previously mentioned, requirements for pollutant-specific emissions units covered by what the August 1996 draft referred to as subpart C have been removed from the rule. See section 6.4 (Part III) for further discussion of the site-specific factors to be considered in evaluating whether monitoring satisfies part 64.

Letter(s): American Public Power Association (VI-D-158); Chemical Manufacturers Association (VI-D-152); National Environmental Development Association (VI-D-169)

Section 3.7: Approval Procedures

Comment a: Some commenters stated generally that the rule should include specific approval guidelines or requested clarification of how the permitting authority will actually act to approve or disapprove a CAM plan. One commenter recommended changes to § 64.3(d) to streamline approval. The commenter argued that this paragraph requires two reviews for each CAM plan, one under Title V and one under the alternative provisions of the underlying rule which is wasteful activity and should be eliminated by providing that the monitoring, recordkeeping and reporting established under CAM are approved alternatives for applicable monitoring, recordkeeping and reporting under Parts 51, 52, 60, and 61.

A permitting authority requested that the rule state the options available to them if sources fail to submit the required monitoring plan or description, or submit monitoring plans and/or descriptions that are inadequate. This commenter argued that the CAM rule should be revised to establish that permitting authorities may impose any monitoring requirements that they deem necessary in such cases. An industry commenter argued that part 64 should provide a mechanism for appeal of permitting authority decisions.

Response: The Agency believes the final rule generally addresses the commenters' suggestions. The approval process occurs as part of - not on a separate schedule from - the part 70 operating permit approval process. Owners or operators will typically learn of permitting authorities' disapproval of part 64 monitoring as the owners and operators' permit applications are found incomplete. That knowledge could also come during the public's review of draft permits or through the Agency's review of a proposed permit.

Section 64.6 specifically address approval of monitoring and § 64.6(e) describes permitting authorities' abilities with respect to disapproval. If an owner or operator believes that the disapproval of proposed part 64 monitoring in a final permit action is inappropriate, the owner or operator has the right to appeal that final permit decision in the same manner as any other final agency action. With respect to relying on the part 64 approval/part 70 permit processes as a substitute for alternative monitoring approval procedures under other programs (SIPs, NSPS, NESHAP), the Agency has determined not to establish this direct linkage in part 64. Given the processing time for title V permitting, the Agency believes this issue can be addressed within the current alternative monitoring approval structure.

Letter(s): Department of Energy (VI-D-196); Exxon Chemical Americas (VI-D-128); Mobil Corporation (VI-D-248); South Coast Air Quality Management District (VI-D-233); Wisconsin Electric Power Company (VI-D-130)

Comment b: One commenter stated that it is inappropriate to require that the permit reflect the required elements of a CAM plan as stated in § 64.3(b) because that improperly subjects Subpart C monitoring to CAM plan requirements. The commenter suggested addressing this issue in Subpart B and Subpart C separately.

Response: As mentioned above, the Agency believes the final rule language specifies minimum acceptable requirements for pollutant-specific emissions units covered by what the August 1996 draft referred to as subpart B. As previously mentioned, requirements for pollutant-specific emissions units covered by what the August 1996 draft referred to as subpart C have been removed from the rule.

Letter(s): Los Alamos National Laboratory (VI-D-210)

Comment c: To alleviate concerns related to the CE rule, a commenter requested that the Agency specifically provide that permitting authorities may not reject a source's proposal simply because the owner or operator does not provide a demonstration as to the relevance of parameter levels outside the proposed indicator ranges.

Response: Nothing in part 64 requires the owner or operator to establish parameter levels which represent non-compliance conditions. The disapproval of part 64 monitoring on that basis would therefore not be a reasonable action under part 64 authority, although a permitting authority may have independent authority for requiring that type of determination. However, the owner or operator is responsible for documenting why the proposed parameters provide a reasonable assurance of compliance. As part of that demonstration, the owner or operator must show why the indicator ranges are relevant to assuring compliance, including why excursions from indicator ranges may be indicative of a loss of control performance.

Letter(s): Utility Air Regulatory Group (VI-D-252)

Section 4: Recordkeeping and Reporting

Section 4.1: Semiannual Reports

Comment a: A state agency commenter supported the proposed semi-annual reporting schedule stating that given current state agency resources this reporting schedule is preferable to one with any greater frequency. The commenter also suggested that quarterly reports be required under special circumstances such as implementation of a QIP. An association of state and local agencies recommended requiring quarterly reporting for Subpart B sources (while retaining the proposed semi-annual reporting requirements for Subpart C sources) since this reporting frequency would allow permitting authorities to respond more quickly to potential emission excursions.

Response: As discussed in section II.I.2. of the final rule preamble, the 1993 EM proposal required quarterly reporting and many commenters indicated that this was overly burdensome. The Agency believes that semiannual reporting as required by part 70 is consistent with the goals of part 64, and with 1994 revisions to 40 CFR 60.7(e) that changed the reporting frequency for NSPS direct compliance monitoring from quarterly to semiannual. The Agency also notes that part 70 authorizes permitting authorities to require more frequent reporting, when appropriate and to report promptly all deviations from permit requirements.

Letter(s): NESCAUM (VI-D-192); State of Illinois EPA (VI-D-183)

Comment b: An environmental organization argued that the rule does not meet the requirement in section 503 of the Act that sources must promptly report all deviations from permit requirements to the permitting authority. According to this commenter, the CAM rule's requirement that sources provide a report every six months of summary information on the number, duration, and cause, if known, of excursions or exceedances and the corrective actions taken is faulty for this reason. In supplemental comments the commenter added that the final rule should not eliminate the obligation under part 70 to identify and report all deviations. Another commenter stated that a community should be able to obtain information about excessive air releases as soon as possible after the occurrence.

Response: The Agency notes that part 64 relies on the reporting requirements of part 70, which specify that reports be submitted at least semiannually, and that all deviations be reported promptly. That independent part 70 requirement will still apply.

Letter(s): Clean Steel Coalition (VI-D-195); Natural Resources Defense Council (VI-D-151); Natural Resources Defense Council (VI-D-244)

Comment c: One state agency recommended that subpart B units which have experienced deviations in a reporting period be subject to automatic submission of reports while subpart C units which have experienced deviations in a reporting period be required to submit a report on request only. The commenter argued that this would reduce the burdens associated with the enormous number of reports that will have to be submitted to satisfy the draft CAM rule. The commenter added that the annual compliance certification will serve as a safeguard to assure proper reporting for subpart C units.

Response: No response to concerns over reporting for subpart C is necessary since subpart C is not included in the final rule.

Letter(s): Texas Natural Resource Conservation Commission (VI-D-189)

Comment d: A commenter stated generally that the proposed reports require too much detail. Another commenter similarly objected to the requirements in §§ 64.4(a)(2)(i) and (ii) to include detailed information on the causes of excursions, exceedances, and downtime incidents in semi-annual reports. Because the commenter agreed with a requirement to submit summary information on these incidents but believed that submitting detailed information on the causes of such incidents will make the reports lengthy and burdensome to prepare, it proposed as an alternative that records on the cause of such incidents could be maintained on site consistent with the requirements of § 64.4(b)(2).

To alleviate reporting burdens, a state agency commenter recommended that Part 64 and Part 70 allow owners and operators of units which have experienced no deviations during a reporting period to submit a single summary report stating that no deviations have occurred. The commenter

asserted that an enormous number of reports will have to be submitted to satisfy the CAM rule and estimated that in their state, 195,000 to 400,000 reports will have to be submitted annually to the permitting authority to satisfy CAM requirements.

Response: The reporting requirements in § 64.9(a)(2)(ii) of the final rule do not require detailed information, but rather summary information on excursions and exceedances. These provisions are patterned after existing summary excess emission reports under 40 CFR 60.7(d). To the extent that part 70 allows for submittal of a single "negative declaration" type of summary report, part 64 has been drafted to allow for the same type of reporting.

Letter(s): Eli Lilly Company (VI-D-124); Pennsylvania Chamber of Business and Industry (VI-D-114); Texas Natural Resource Conservation Commission (VI-D-189)

Comment e: One commenter recommended modifications to § 64.4(a)(2)(ii) for reporting of monitor downtime. The commenter argued that owner/operators should be able to exclude outages associated with other daily, weekly, etc. quality assurance activities rather than only daily monitor maintenance and asked that the word "daily" be deleted.

Response: The Agency disagrees. The requirements for reporting of monitor downtime in § 64.9(a)(2)(ii) of the final rule are consistent with other EPA reporting requirements (see 40 CFR 60.7(d)).

Letter(s): Exxon Chemical Americas (VI-D-128)

Section 4.2: Reporting-QIP Notice

Comment a: Several commenters recommended that EPA extend the QIP notification period. A few commenters suggested specific revisions to § 64.4(a)(3) consistent with this position. Two commenters stated generally that the QIP notification time periods are arbitrary. One commenter noted that notification within two working days of when a QIP is required may not be possible, especially in circumstances such as those where an out-of-range parameter is initially thought to be caused by a malfunction

of the monitoring equipment and the need for a QIP is not discovered until after replacement of a monitoring component. This commenter and others stated that notice should be triggered after the owner "identifies the need for" a QIP. Other commenters stated that their understanding of the rule as drafted is that the obligation to notify begins at the time at which the source determines that a QIP is needed, which may be later than the time at which the QIP threshold is actually reached. A state agency and another commenter argued that because the data collected to satisfy the CAM rule may require significant time to evaluate before an informed decision to implement a QIP can be made, the two day notification requirement is unreasonable. Similarly, a commenter noted that, at a small site, one person may be responsible for reviewing data and determining when a QIP has been triggered and that it may also take some time to determine when the 5 percent threshold has been reached, especially at a facility subject to a large number of CAM plans. As much as two days is ordinarily needed to repair the damage to the unit and determine the cause of a failure. In addition, other regulations may require a more immediate notification (e.g., malfunctions) and subsequent follow-up reports.

Many commenters recommended various alternative notification periods. One of the commenters argued that since an excursion from an indicator range does not automatically mean that a source has violated an emission limit or standard, triggering of a QIP is not an emergency situation and should not require such a short notification period. The commenter recommended requiring notification "as soon as possible." Other recommendations included notice periods from 5 to 30 days. One commenter recommended that the QIP reporting requirement be consistent with language in the requirement to provide notice of deviations from a permit in 40 CFR 71.6(a)(3)(iii)(C) which includes telephone or facsimile notice with a written notice submitted within 10 working days.

One commenter argued that since sources are required to take corrective action immediately, immediate notification is not that crucial. The commenter added that it may be impossible to make notification within two days, for example if the time involves a weekend or holiday. Another commenter stated generally that the period is too short to review the necessary information and that such a short time frame seems unnecessary.

A commenter recommended that the 2-day notification period apply only to situations in which the source determines that an exceedance of an applicable emission limitation or standard has occurred, not to excursions or QIPs. The commenter stated that this would reduce report review burdens on permitting authorities and focus review on only real problems.

Response: The Agency has deleted from the final rule the requirement that source owners notify the permitting authority within two days of the need to implement a QIP. No additional response to this comment is necessary.

Letter(s): Air Products and Chemicals, Inc. (VI-D-186); American Automobile Manufacturers Association (VI-D-157); American Electric Power (VI-D-129); American Gas Association (VI-D-154); Association of Battery Recyclers (VI-D-155); Chevron Companies (VI-D-132); Clean Air Implementation Project (VI-D-153); Colorado Association of Commerce and Industry (VI-D-182); Coastal Corporation (VI-D-123); County Sanitation Districts of Los Angeles County (VI-D-232); Eastman Chemical Company (VI-D-173); Georgia Department of Natural Resources (VI-D-193); Hawaiian Electric Company, Inc. (VI-D-165); KBN Engineering and Applied Sciences, Inc. (VI-D-229); Pharmaceutical Research and Manufacturers of America (VI-D-217); PPG Industries, Inc. (VI-D-136); R.R. Donnelley & Sons Company (VI-D-221); Southern Company Services (VI-D-171); Specialty Steel Industry of North America (VI-D-143); Steel Manufacturers Association (SMA) (VI-D-144); Texas Chemical Council (VI-D-236); Texas Natural Resource Conservation Commission (VI-D-189); The Fertilizer Institute (VI-D-145); The Society of the Plastics Industry (VI-D-148); UCAR Carbon Company, Inc. (VI-D-122); Wellman, Inc. (VI-D-237)

Comment b: A commenter argued that notification that a QIP has been triggered may not be possible until the completion of the semiannual reporting period since a facility may not know it has triggered a QIP particularly if a percentage threshold has been exceeded. This commenter requested that EPA establish that, under such circumstances, a source does not need to report triggering of a QIP until two working days after the end of the reporting period. Another commenter agreed and added that the requirement just adds yet another paperwork burden for a notice that may never be looked at. The second commenter proposed that the notice be included in the next semiannual report.

Response: The Agency has deleted from the final rule the requirement that source owners notify the permitting authority within two days of the need to implement a QIP. No additional response to this comment is necessary.

Letter(s): Chemical Manufacturers Association (VI-D-152); General Electric Company (VI-D-156)

Comment c: One state commenter noted that the QIP notification period conflicts with some state and local reporting requirements and may cause confusion among permitted sources. The commenter referred to their state's own semiannual requirement to report deviations from monitored control equipment parameters (Minn. R. 7007.0800).

Response: The Agency has deleted from the final rule the requirement that source owners notify the permitting authority within two days of the need to implement a QIP. No additional response to this comment is necessary.

Letter(s): Minnesota Pollution Control Agency (VI-D-197)

Comment d: Some commenters were concerned with the grant of discretion for permitting authorities to add further QIP notification requirements. The commenters stated that this is a standardless delegation of authority to permitting authorities, and that the QIP reporting provisions are sufficient. Another commenter suggested revising § 64.4(a)(3) to replace "shall" with "may" in order to clarify that permitting authorities are not required to add further QIP reporting requirements.

Response: The final rule does not include the referenced provision that was included in the 1996 part 64 Draft. The final rule provides that a QIP can be required after a determination by the permitting authority or the Administrator that a source owner or operator has failed to conduct proper operation and maintenance as documented through part 64 monitoring and other available information. In this respect, the QIP provisions are analogous to existing corrective action remedies available to address compliance problems already available to permitting authorities. No additional response is necessary.

Letter(s): American Automobile Manufacturers Association (VI-D-157); General Electric Company (VI-D-156); Total Petroleum, Inc. (VI-D-190)

Comment e: A commenter requested that EPA clarify whether this notice must be written, verbal or both.

Response: The Agency has deleted from the final rule the requirement that source owners notify the permitting authority within two days of the need to implement a QIP. No additional response to this comment is necessary.

Letter(s): PPG Industries, Inc. (VI-D-136)

Section 4.3: Records to be Kept

Comment a: Several commenters were opposed to the inclusion of additional recordkeeping and reporting requirements on the grounds that such requirements are burdensome and costly. One commenter stated that operators should be allowed to record O&M data in the course of their normal work requirements and without significant additional effort. This commenter argued that operators would not normally need to keep records relating to corrective actions, QIPs and QIP implementation activities, QA activities, monitoring downtime incidents, data used to demonstrate the adequacy of monitoring, and other required monitoring information. The commenter added that these requirements will be additionally burdensome because many regulated sources are remotely located and unmanned.

Other commenters were concerned about potential redundant recordkeeping and reporting. They asked that EPA clarify that Part 64 does not require the keeping of separate records or development of new reports where the required information is already kept or reported as a result of a pre-existing requirement (e.g., recordkeeping requirements under Part 75 or excess emission reporting under Part 60).

Response: As discussed in section II.I.5. of the final rule preamble, the Agency believes that the records required to be kept under part 64 are all required by part 70. Therefore the intent of § 64.9(b) is to clarify the requirements rather than to impose additional burdens.

Letter(s): Natural Gas Pipeline Company of America (VI-D-118); Utility Air Regulatory Group (VI-D-140); Virginia Power (VI-D-226); Wisconsin Electric Power Company (VI-D-130)

Comment b: Two commenters requested clarification of the time period for keeping records. A commenter proposed that a provision which states how long records should be kept be included under the recordkeeping requirements in § 64.4(b). Another commenter suggested that to be consistent with existing regulations and standards, facilities should be allowed to maintain records for a period of less than five years.

One commenter asked that the rule clarify that QIP records are required to be maintained only if a QIP is actually required.

Response: The final rule refers to the recordkeeping requirements set forth in § 70.6(a)(3)(ii) which require that records of the required monitoring be kept for at least five years. The Agency believes that the reference to "any" quality improvement plan required pursuant to § 64.8 is adequate to specify that only records related to required QIPs are necessary.

Letter(s): Natural Gas Pipeline Company of America (VI-D-118); Occidental Chemical Corporation (VI-D-166); Total Petroleum, Inc. (VI-D-190)

Section 4.4: Alternative Recordkeeping Formats

Comment a: Several commenters asked that data compression be explicitly authorized. One commenter stated that this would prevent an unreasonable number of data points being stored. Another commenter argued that since most continuous data recording functions are performed by computer, EPA should authorize two types of compression: 1) systems that "zip" a file for storage by only retaining data points that differ from prior data points (see 40 CFR 63.506(g)(3)); and 2) systems that average many numbers down to one number, so long as none of the numbers exceed a regulatory limit. The commenter explained that these methods do not discard relevant data, and added that the compression algorithm could be available for on-site inspection and all data could be retained for 3 hours. A commenter cited the HON preamble, 40 CFR 63.152(f), which provides for the use of alternative recordkeeping systems, such as data

compression systems. Another commenter cited to the HON and certain MACT standards as examples of regulations that authorize keeping various averages of data points that show compliance and recording every data point only when indicators are outside of approved ranges.

One commenter stated generally that it supported the flexibility provided in the 1996 part 64 draft for use of alternative media.

Response: As discussed in Section II.I.5. of the preamble to the final rule, part 64 records may be kept in media other than paper so long as the records are available for inspection. The use of data compression is subject to the underlying requirements in other standards, if applicable. For records required solely because of part 64, the Agency believes that the general recordkeeping provisions in Part 70 are sufficiently flexible to allow for approval of data compression on a case-by-case basis.

Letter(s): Chemical Manufacturers Association (VI-D-152); Dow Chemical Company (VI-D-120); Phillips Petroleum Company (VI-D-131); Texas Chemical Council (VI-D-236); Virginia Power (VI-D-226)

Section 4.5: Off-site Storage of Records

Comment a: Several commenters stated that off-site storage of records should not require permitting authority approval. Two commenters argued that part 70 already allows for this and part 64 should not restrict this authority. Neither permitting authority staff nor owners/operators should have to expend time and effort on such a technicality according to one commenter. Another commenter concluded that CAM should not alter underlying rules in this manner.

Response: Because the final rule relies directly on the reporting and recordkeeping requirements of part 70, the requirement for permitting authority approval of off-site storage of records has been deleted. The Agency notes that the records must be made readily available for inspection.

Letter(s): American Automobile Manufacturers Association (VI-D-157); Coastal Corporation (VI-D-123); Colorado Association of Commerce and Industry (VI-D-182); Exxon Chemical Americas (VI-D-128); General Electric Company (VI-D-156); Texas Chemical Council (VI-D-236)

Section 4.6: Other Reporting and Recordkeeping Issues

Comment a: One state agency suggested a quarterly "look-back" requirement, under which sources would have to determine if they had exceeded their QIP implementation threshold in the previous three months. The commenter explained that if the threshold had been exceeded, the source could be required to submit an informational report to the permitting authority. This requirement would provide permitting authorities with early warnings of possible deviations from a CAM plan and sensitize owners/operators of the need to take steps to avoid actual QIP implementation at the end of the semi-annual reporting period according to this commenter.

Response: Because of the revisions to the QIP provisions, this comment is no longer generally applicable. A permitting authority would be able to add this type of requirement in those situations where a specific QIP trigger threshold is included in a permit.

Letter(s): State of Illinois EPA (VI-D-183)

Comment b: One commenter stated that the rule should, at a minimum, require an automated means of data collection, storage and reporting because visual readings and manual logging by technical personnel have been shown to be notoriously unreliable when compared to automated means (e.g., manual logging can lead to failures to actually take the appropriate reading and to fill out the log at the end of a shift). The commenter added that exceptions to automated readings could be allowed if substantial economic or technical barriers exist.

Response: The Agency disagrees that only automated means of data collection, storage and reporting should be allowed. The EPA believes that part 64 should be flexible regarding the type of data collection and storage permitted so that the permitting authority can approve the most efficient scheme on a site-specific basis. However, the presumption of at least some form of continuous monitoring for large emissions units (see Section II.C.2.d. of the preamble to the final rule) likely will result in automated monitoring approaches for most large units subject to part 64.

Letter(s): Environmental Systems Corporation (VI-D-125)

Comment c: A commenter argued that part 64 should not require that "substitute data" calculated under part 75 when CEMS data are unavailable be used in reporting deviations or excursions. Because such data are hypothetical and intentionally punitive, according to the commenter, the commenter stated that their use would equate to "double counting" against a source of hyperbolic "emissions"--when in fact actual emissions during a "data-less" period may have been well within limitations or standards. According to this commenter the use of substitute data for part 64 would misrepresent to regulators and the public the potential environmental impacts of actual emissions.

Response: Part 64 does not require or assume that an owner or operator will use part 75 substitute data procedures in calculating applicable emission averages for other applicable requirements (NSPS, SIP, etc.). These averages should be calculated using CEMS data that are considered valid data under the applicable requirement in question.

Letter(s): Southwestern Public Service Company (VI-D-224)

Section 5: Savings Provisions

Comment a: One commenter stated that EPA should delete § 64.5(a)(2)'s reference to the Administrator and to Clean Air Act section 504(b) because it is unnecessary to save the requirements of section 504(b) because there are no prior regulations issued under this section other than the current proposed rule. The commenter added that even if the current part 70 is considered a rule under section 504(b), EPA should eliminate the savings provision so that only one set of requirements will apply under that provision, which would be consistent with EPA's stated intent to rescind the periodic monitoring provisions of part 70. Alternatively, the commenter recommended EPA deferring CAM implementation until the second round of title V permits.

Response: The Agency disagrees. As discussed in Section I.C.4 of the preamble to the final rule, the Agency has decided to continue to rely on part 70 to define the periodic monitoring requirements for units not subject to part 64. In addition to these requirements, this language clarifies that the savings provisions apply to any future requirements promulgated under section 504(b).

Letter(s): Chemical Manufacturers Association (VI-D-152)

Comment b: A commenter requested that § 64.5(a)(1) be more specific what constitutes "improved or new monitoring requirements" for those facilities that do not have existing monitors. This commenter also stated that the "more restrictive monitoring" requirement in § 64.5(a)(2) is an open ended requirement.

Response: The Agency disagrees that further explanation is needed. The phrase "improved or new monitoring" in § 64.10 of the final rule is used in describing the purpose of part 64, as defined more fully in the other sections of the rule, and distinguishing it from other regulations which establish minimum requirements for particular programs. See further discussion in Section II.J. of the preamble to the final rule.

Letter(s): Occidental Chemical Corporation (VI-D-166)

Comment c: One commenter argued that § 64.5(a)(3) should be deleted because it would have the effect of abrogating the permit shield.

Response: As described in Section I.E. of the preamble to the final rule, the Agency does not agree with those commenters who suggested that sources that comply with part 64 should be shielded from enforcement of their emission limits. The Agency does not believe that the savings provisions of the final rule interfere with the permitting authority's ability to extend the permit shield to part 64 monitoring requirements included in an operating permit. The extension of such a shield will be available to protect sources from claims that the monitoring approved in the permit fails to satisfy part 64.

Letter(s): General Electric Company (VI-D-156)

Section 6: Monitoring Design Criteria

Section 6.1: Subpart B-General Criteria

6.1.1: General Comments

Comment a: Commenters supported generally the approach to using monitoring that documents proper operation and maintenance of control devices, or noted that the draft § 64.6 was an improvement over past versions because the current version properly establishes a standard of "reasonable assurance of compliance" and abandons prior drafts use of problematic concepts such as ranges designed "to ensure . . . that the [unit] will remain in compliance."

Response: No response necessary.

Letter(s): Air Control Techniques, P.C. (VI-D-202); Chemical Manufacturers Association (VI-D-152); Department of Energy (VI-D-196)

Comment b: Other commenters complained that the monitoring required under CAM would produce data with no relevance to environmental protection. Commenters argued that the CAM approach of monitoring "indicators" of control device performance which are not correlated with emissions will neither provide data that ensure that sources are operating within emission limits nor give regulators the data needed to implement rational attainment strategies. Commenters stated that direct measurement of emissions is necessary to fulfill these aims. Another added that the rule should require industry to monitor actual emissions so that the rule in fact assures compliance and makes the data easy to compare to emission limits for enforcement and certification purposes. In addition, the commenter argued that the rule should assure that excess emissions are adequately addressed, monitoring is done at an acceptable frequency, all valid data are reported, and all major sources are subject to the requirements. A commenter asserted that the monitoring provisions should require monitoring that is capable of being correlated with emission limits. This commenter stated that the rule improperly results in a comparison of owner selected parameter measurements with owner selected ranges rather than comparison of actual emissions with emission limits. Other commenters also argued that indicator ranges are not

reliable enough to show compliance or noncompliance with applicable emission limits and standards, except that some commenters assert they could be if the rule requires additional criteria to provide a credible demonstration of the relationship. A state agency recommended that one of the goals of the CAM rule should be establishing the relationship between monitored parameters and actual emissions. The commenter suggested achieving this goal by requiring that sources demonstrate this relationship in order to get the benefit of a shield for the adequacy of CAM plans. The commenter added that, at a minimum, a source or industry group should be required to develop a sensitivity analysis to identify the most critical parameters for process/control performance. Similarly state agency commenters supported a requirement that sources must make a "credible demonstration" of the relationship between monitored parameters and actual emissions. The agencies argued that such a demonstration would be necessary before any parametric or O&M data could be used to support a presumption of compliance. The commenters recommended that the "credible demonstration" require that the following elements be shown for each pollutant-specific emissions unit while the unit is operating in a manner consistent with the CAM plan: 1) a demonstrated relationship between the monitored parameter and the unit's actual emissions; 2) a demonstrated margin of compliance; and 3) an assessment of the potential variability of the unit's emissions. The commenter further specified that the number of indicators monitored and the extent of the required demonstration would be a function of the documented emissions history of the unit, the unit's established margin of compliance, the complexity of the process, and other factors. The commenters added that the phrase "credible" in the "credible demonstration" standard would be defined by either EPA, permitting authorities, or the courts (in the event of a legal challenge).

Response: The Agency believes that monitoring to assure the ongoing proper operation and maintenance of control technology has direct relevance to environmental protection. Further, the Agency believes that such monitoring can provide a technically sound and reasonable assurance of continuing compliance with applicable requirements, including emission limitations. The commenters are correct that part 64 does not require a statistical correlation analysis between the levels of measured parameters and emission rates; however, the suggestion that part 64 does not require any site-specific developed relationship between parameter indicator ranges and compliance performance is inaccurate. The Agency agrees

that the use of operational data collected during performance testing is a key element in establishing indicator ranges; however, other relevant information in establishing indicator ranges would be engineering assessments, historical data, and vendor data. Further, the Agency believes that operation within indicator ranges established in this manner will provide reasonable confidence that so long as the indicator values are not exceeded the facility will remain in compliance with emission standards. The rule requires precisely this type of justification for the establishment of indicator levels. Thus, the commenters' broad claims about "no correlation" are simply incorrect. The evaluation criteria cited by state agency commenters are consistent with the criteria identified in part 64 for evaluating selected parameters and the appropriateness of the indicator range. These factors should be considered by both the source owner and the permitting authorities in evaluating whether the indicator levels provide a reasonable assurance of compliance as part 64 indicates. Further, the fact that the operating indicator ranges are owner-derived does not obviate the requirement in the rule for adequate justification for the parameters being monitored and the levels at which the parameters are maintained.

Letter(s): Clean Steel Coalition (VI-D-195); Institute of Clean Air Companies (VI-D-139); Maine DEP (VI-D-240); Natural Resources Defense Council (VI-D-151); NESCAUM (VI-D-192); S. Fitzsimmons (VI-D-201); Sierra Club, Lone Star Chapter (VI-D-242); State of New Jersey Dept. of Environmental Protection (VI-D-215)

Comment c: A commenter also argued that the CAM rule fails to address important issues relating to the establishment of indicator ranges and parameter monitoring. The commenter described the provision in the rule requiring sources to monitor one or more indicators of control device performance as inadequate and stated that if CAM is to rely on the theory that control device monitoring can assure compliance, it should recognize that typical control devices have several parameters that must stay within certain ranges. The commenter noted that if monitoring is inadequate, a source could operate consistently out of compliance with emission standards without detection. The commenter asserted that sources will tend to push the limits of leniency in the CAM plans they submit in an effort to minimize the detection of excursions and exceedances.

Response: The Agency agrees that many control device operations are sensitive to the management of more than one operating parameter. The language in the rule and preamble emphasizes this point. An indicator range which fails to take into account significant control device parameters is unlikely to provide the reasonable assurance of compliance with emissions limitations or standards. Further, the guidance material the Agency has distributed includes examples with multi-parameter monitoring as generally accepted approaches. These guidelines also provide example technical justifications on which to base operating indicator ranges for permitting authorities and the public to use in judging the adequacy of monitoring. The subsequent responsibility to record, respond to, and report excursions as possible exceptions to compliance will have the desired affect of requiring the source owner to pay more attention to the operations of the control technology and, in turn, improve and assure compliance.

Letter(s): Natural Resources Defense Council (VI-D-151)

Comment d: A commenter stated that state permitting authority review of CAM plans will not guarantee effective monitoring and pointed out that rejection of a source's proposed CAM plan will result in the delay of any monitoring requirements whatsoever.

Response: The Agency has prepared and will continue to develop guidance materials to help permitting authorities to review and evaluate proposed monitoring approaches. Part 64 also makes clear that disapproval of monitoring during the permit application process does not relieve the source owner from basic periodic monitoring requirements as defined in part 70. Finally, if a monitoring plan is disapproved, the owner or operator must prepare revised monitoring within the schedule defined by the rule and is in jeopardy of enforcement action if subsequent proposals are found inadequate.

Letter(s): Natural Resources Defense Council (VI-D-151)

Comment e. An industry coalition group and others raised concerns that the design standard for indicator ranges could be interpreted to mean that a statistical correlation is required. The commenters argued that the design

standard for indicator ranges is fundamentally flawed and results in increased stringency. They noted that the standards in the draft rule offer no concrete guidance on how to set indicator ranges but appear to require assurance that emissions never exceed a given numerical limit. Commenters argued that because many standards were developed without requiring emissions to continuously meet that number (see related comments under section 14), this design standard changes the underlying stringency of the standard. The commenters added that EPA then appears to require a statistical correlation between the emission standard and the indicators monitored through requiring the range to be set on the basis of performance tests. However, any such statistical correlation would require a massive complex testing program involving multiple parameters and operating conditions according to the commenters.

If such a statistical correlation is not required, then the commenters argued that the rule provides no guidance on how to address uncertainties or issues of margin of compliance in using performance test results in setting indicator ranges. Instead, they stated that it appears that a source will be locked into the potentially arbitrary conditions that existed during the test and that those conditions could dictate an enforceable indicator range or the triggering of a violation for a second QIP. The only way out of that result is to conduct further tests to document why the indicator range should be adjusted, which the commenters stated would impose unnecessary costs on the source. The commenters stated that the opacity example (which assumes that an indicator range below an opacity standard may be appropriate) points out the inherent increased stringency with the design process for indicator ranges.

In addition, one commenter argued that the one example of how to set a range that is included in EPA's draft guidance, although not premised on real data, raises unanswered questions and illustrates the problems with EPA's approach. It also contains a significant technical error that makes it unworkable according to this commenter.

These commenters suggested as an alternative design standard that indicator ranges be established to assure in a cost-effective manner that control measures, which have been shown capable of achieving emission limits, are properly operated and maintained in accordance with good air pollution control practices for minimizing emissions. In addition, the

monitoring design criteria should specifically state that the monitoring will not be used to make underlying standards more stringent, and that monitoring should only be required where it is cost-effective. In addition, the primary basis for establishing indicator ranges should be all available information, including historical operating data (including data obtained during tests), engineering data, and vendor data or guidance. That data would be used to establish the full range of expected variability based on normal operations and consistent with good O&M. The use of performance test data should not be used to limit the full normal range of indicator values that reflect good O&M, even if the performance test was near an applicable limit. The commenters stated that this approach recognizes the relationship of emissions and parameters, and the variability of both test and parameter results. One commenter discussed this point in the context of Portland Cement test results.

Response: As noted above, part 64 does not require a statistical correlation analysis of the relationship between operating parameter levels and emissions. The rule is clear on this point and the guidance material is similarly structured. However, this rule is designed to do more than “assure . . . that control measures . . . are properly operated and maintained in accordance with good air pollution control practices for minimizing emissions.” This is not simply an emission minimization rule; it is a rule that requires enhanced monitoring for the purpose of collecting data relevant to the compliance of the source with emission standards. Because of the high cost involved in calculating a statistical correlation between emissions and parameter levels across operating levels, the rule is based on an approach for determining parameter levels that takes into account both site-specific performance test data and all other available data including engineering evaluations, historical information, and vendor or manufacturer data. The Agency believes that parameter levels derived from such data can have a sufficiently close relationship to emission levels that maintaining the source within those parameter or indicator levels can provide a reasonable assurance of compliance.

The issue of stringency and continuous compliance obligations is discussed in section 14 (Part III). Part 64 is simply a rule defining monitoring requirements and which is based and builds upon existing monitoring approaches. The suggestion that the rule include a factor for evaluating monitoring selection based on cost-effectiveness is unnecessary given that the expense of a statistical correlation analysis is

not required. Indeed, the rule makes a point of allowing just the type of data support the commenters suggest (e.g., historical operating data (including data obtained during tests), engineering data, and vendor data or guidance) in conjunction with performance test data (or alone if the owner or operator can justify that a test is not necessary) to support site-specific indicator ranges.

Letter(s): Chemical Manufactures Association (VI-D-258); Coalition for Clean Air Implementation (VI-D-164); DuPont Engineering (VI-D-127); National Environmental Development Association (VI-D-169); Specialty Steel Industry of North America (VI-D-143); Steel Manufacturers Association (SMA) (VI-D-144)

Comment f: One commenter was concerned that the criteria in draft § 64.6(a)(2) appear to require monitoring to measure the effectiveness of operation and maintenance activities in addition to the measurement of control device performance required by § 64.6(a)(1). This approach turns a general duty into a standard and is unheard of in existing air pollution programs, the commenter argued. The commenter stated that indicators are used to determine if the emission limit is being attained and it is unlikely that an indicator of O&M effectiveness could be found. In addition, given the broad definition of control device, the commenter argued that this requirement would extend to processes and operations not subject to the underlying rule. Thus, the commenters recommended that § 64.6(a)(2) be revised by deleting the third sentence.

Response: Part 64 is intended to define not only monitoring that can be used to establish compliance status, but also to clarify with distinct requirements what is expected for compliance with general duty requirements common to EPA and many other regulations. The Agency agrees maintaining operations within established indicator ranges represents good operation and maintenance of control technology and will provide a reasonable assurance of compliance with emission limitations; that is a basic function of part 64. The additional clarification that compliance with the owner's responsibility to respond promptly to excursions from the established indicator ranges is also part of the measure of good operation and maintenance practices.

Letter(s): Exxon Chemical Americas (VI-D-128)

Comment g: Some utility commenters stated that the rule should not require monitoring of indicators to demonstrate that controls are operated in a way that will minimize emissions "at least to the levels required by all applicable requirements." They argued that this phrase should be deleted because there can be disagreement about the absolute level of emission control required by certain applicable requirements. One commenter added that it was concerned about the cost of validating data necessary to establish appropriate ranges.

Response: Part 64 is not intended to define the applicable requirements including the applicable emission limits. Part 64 is intended to define the minimum level of monitoring sufficient to demonstrate that pollutant specific emission units with control devices continue to operate in a manner consistent with compliance performance. The phrase "at least to the levels required by all applicable requirements" is consistent with this goal and is not intended to add or define any new requirement. This language is based on similar language used in part 63 to define an owner or operator's general duty to properly operate and maintain a source (see § 63.6(e)(1)). The cost of validating performance indicator ranges is, by the design of part 64, to be moderate given the reliance on process and control device operation and maintenance design factors rather than an extensive degree of correlation testing.

Letter(s): South Carolina Electric and Gas Company (VI-D-116); Utility Air Regulatory Group (VI-D-140); Wisconsin Electric Power Company (VI-D-130)

6.1.2: Adequacy of the General Criteria

Comment a: Some commenters argued that the criteria need to be simplified and clarified so that there is a standard against which to judge compliance. They noted that the draft includes four separate standards for judging the adequacy of a CAM plan: reasonable assurance of compliance, good air pollution control practices, necessary to assure compliance, and designed to provide reliable data for detecting an exceedance or excursion. They recommended that the rule should require that CAM provide a reasonable assurance of compliance, in a cost-effective manner, without increasing the stringency of existing substantive requirements. (See related comments in Section 6.4) Another commenter added that the general

criteria and other requirements of CAM fail to provide standards against which compliance with CAM can be judged. For instance, the commenters stated that the rule fails to adequately: define control device; explain how to set indicator ranges; explain how to set the QIP threshold or determine if an excursion or exceedance occurs; or explain how the exemptions apply. This commenter argued that specific standards should apply and include consideration of cost-effectiveness. (See detailed comments in Section 6.4) Another commenter stated generally that more concrete guidance in the rule is necessary on how indicator ranges will be set in practice.

An environmental group argued that criteria and the supporting documentation requirements in the rule are vague and therefore, permitting authorities would not be able to give meaningful review to monitoring proposed to meet part 64. This commenter also noted that states have limited resources and claimed, based on comments by the State of Texas at a public meeting, that the states would be overwhelmed by the number of applications with monitoring.

On the other hand, others argued that the general criteria (and the performance criteria and the CAM requirements) provide too much detail. One commenter added that, although the rule is an improvement over the 1993 EM proposal, the level of detail in Subpart B is still too burdensome to properly fulfill the "gap-filling" role for CAM described in the draft preamble, and that the requirements should be more like those in Subpart C. Another commenter stated that the rule should leave much more discretion to the states as to what and how much information related to CAM must be submitted, and that the requirements in §§ 64.6-.8 of the 1996 part 64 Draft are too detailed to allow this discretion. The commenter cited the QA/QC and operational status verification requirements as examples of this problem which would delay permitting and bog down the title V process.

Response: In the final rule, EPA has attempted to simplify the basic general criteria to avoid the type of potential ambiguity noted in the comments. The final rule clearly establishes that indicator ranges under part 64 must be set to provide a reasonable assurance of compliance with applicable emission limitations for the anticipated range of operating conditions. Such indicator ranges are required to reflect the proper operation and maintenance of the control device (and associated capture system), in

accordance with applicable design properties, for minimizing emissions over the anticipated range of operating conditions at least to the level required to achieve compliance with the applicable requirements. Part 64 addresses, by necessity, broadly applicable monitoring of pollution control technology intended not as “gap-filling” but to address the Clean Air Act requirements for enhanced monitoring that will provide an assessment of compliance with applicable requirements. That some discretion must be applied for site-specific applications of such requirements is unavoidable. For this reason, the Agency has undertaken to develop control technology and source category specific guidance to assist in defining what the Agency believes is necessary to meet the requirements of the rule.

The Agency believes that changes made to the monitoring criteria and to the documentation requirements (see Section 8.1) cure vagueness concerns. The commenter’s claims regarding the overwhelming number of CAM plans that would have to be reviewed is based on an estimate which was grossly overstated. Instead of “hundreds of thousands” of units for Texas alone, EPA estimates 26,500 units nationwide will be subject to part 64 requirements. The resources required at the permitting authority will increase to provide review of initial permit application review, potential permit revisions, and permit renewal activities. The Agency expects that these resource needs will be on the average of 5000 hours and \$160,000 per agency over a five year period. This level of effort is over and above that required to implement the periodic monitoring requirements in part 70 and may be offset with permit fee increases, as appropriate.

The relatively low resource increase on the part of the permitting authorities is due to several factors. First, as noted above, the costs associated with monitoring required by part 64 are incremental to the costs associated with existing regulations. Given that CAM is predicated on building on existing monitoring, the costs to the permitting authority would, in many cases, focus on ensuring that the permit applications address the enhancements required by part 64 to existing monitoring. Second, the phase-in schedule initially will require the permitting authority to address part 64 only for the largest units which account for a small percentage of the total number of units affected by the rule. The CAM phase-in will be significantly longer than the five-year time period on which the CAM costs were based.

Letter(s): American Automobile Manufacturers Association (VI-D-157); Coalition for Clean Air Implementation (VI-D-164); Colorado Association of Business and Industry (VI-D-182); Electronic Industries Association (VI-D-137); National Environmental Development Association (VI-D-169); Ohio Chamber of Commerce et al (VI-D-160); Pennsylvania Chamber of Business and Industry (VI-D-114); Total Petroleum, Inc. (VI-D-190)

6.1.3: Monitoring of Processes, Capture Systems and Bypass

Comment a: Certain commenters objected to the requirement to monitor indicators of the performance of capture systems and/or processes in addition to actual control devices. They argued that the expansion of monitoring beyond control devices is unnecessary and creates confusion. They added that it will be difficult to identify and accomplish appropriate capture system and process equipment indicator monitoring. The additional resources used for this expanded monitoring will not significantly enhance the ability of the CAM plan to detect problems with the control technology since the indicator ranges established for the control devices are likely to detect problems with the capture system or process as well. Two commenters proposed adding the words "and/or" between "applicable control device" and "any associated capture system" in § 64.6(a)(1) in order to clarify that monitoring of indicators for both control devices and capture systems is not required by CAM unless necessary to indicate emission levels. Another commenter proposed eliminating all references to the required monitoring of capture systems in the draft CAM rule because monitoring of capture systems will often provide little useful information. The commenter noted, for example, that where an applicable requirement is defined in terms of a control device performance standard rather than an emission limit, monitoring of the capture system will provide no data relevant to the control device's compliance with the standard. The commenter also noted that some capture systems operate under negative pressure, such that failures of the system will result in leaks into the system but no external excess emissions. The commenter recommended that the inclusion of capture system monitoring in CAM plans should be based on site-specific determinations by owners/operators subject to review by permitting authorities. One industry commenter agreed with the § 64.6(a)(1) language which requires monitoring of control device, capture systems, and processes "necessary to assure compliance." The commenter stated, however, that the requirements of §§ 64.6(a)(2) and

(a)(3) are inconsistent with the previous paragraph in that they describe monitoring of processes "significant to" achieving compliance, which unreasonably expands CAM. The commenter argued that virtually every process is significant to achieving compliance but if the control device is able to handle changes in processes (and generally a demonstration of such ability has been made since performance testing usually includes worst-case conditions) then it is not necessary to monitor the process to achieve compliance. Similarly, another commenter noted that draft § 64.6(a)(1) requires Subpart B monitoring to monitor processes "where necessary to assure compliance", whereas §§ 64.6(a)(2) and (3) speak of process monitoring where "significant to achieving compliance." The commenter requested EPA to clarify whether this distinction was intended, and if so, what it means. Another commenter also recommended adding the phrase "where necessary" to the phrase " . . . and processes significant to achieving compliance, . . ." in § 64.6(a)(3). This revision is necessary to clarify that processes do not need to be monitored where other methods are used to reasonably assure compliance according to the commenter.

Response: For many situations, the capture of pollutants for transport to a control device is critical to compliance with applicable standards. Monitoring of only the control device performance in such situations would not provide sufficient information on control performance nor on compliance status. Examples include capture of fugitive dust emissions from material transfer operations that are routed to a fabric filter, hood capture of VOC emissions from coating operations that are routed to an incinerator, and capture of metal particulate fumes from smelting operations routed to scrubbers. Failure to maintain proper capture system pressure or flow rates could significantly affect the overall emission reductions and would not be adequately represented by the control device monitoring alone. Similarly, the operation of a process or manufacturing operation can be critical to assuring that the control device will operate properly. For example, excess heat at the inlet of a wet scrubbing device resulting from increased process or combustion loading can significantly affect the control capabilities. Similarly, a change in process operations that changes VOC concentration at the inlet of a carbon absorber can result in excess emissions and a potential compliance problem. The Agency does not intend that monitoring of every process operation be included in the monitoring to satisfy part 64. The rule does expect monitoring of process conditions that significantly affect the operational capabilities of the

control device. The Agency agrees with the commenters that such situations are site-specific in nature. The EPA believes that the final rule clarifies that process operations monitoring is only required "as necessary" to provide a reasonable assurance of compliance with applicable requirements over the anticipated range of operating conditions at a source.

Letters: Air Products and Chemicals, Inc. (VI-D-186); Chemical Manufacturers Association (VI-D-152); Clean Air Implementation Project (VI-D-153); Dow Chemical Company (VI-D-120); Eli Lilly Company (VI-D-124); Enron Operations Corp. (VI-D-235); Exxon Company, USA (VI-D-135); Texas Chemical Council (VI-D-236); Total Petroleum, Inc. (VI-D-190)

Comment b. Commenters also objected to the requirement to conduct monitoring to detect any bypass of a control device or capture system. One commenter agreed generally that sources should ensure that capture systems and control devices are not being bypassed, but stated that the requirement in § 64.6(a)(4) is inconsistent with the basic goals of CAM and should be eliminated. The goal of Subpart B monitoring is to ensure proper performance of the control device and not to ensure that the device is being used by a source when required by an emission limitation or standard, according to the commenter, and including the level of detail in a CAM plan suggested by this requirement will make the program unmanageable. If EPA does not eliminate this requirement, the commenter encouraged EPA to develop more specific guidance on the types of monitoring necessary to satisfy this requirement. Another commenter recommended deleting § 64.6(a)(4), or at least replacing the word "monitoring" with "a means or method" because a system designed to detect bypass may not actively collect data.

Response: As stated before, the purpose of part 64 is to provide a monitoring foundation for determining compliance with applicable requirements. Compliance with emission limitations are among those requirements. For this reason, monitoring is necessary to verify that pollutants are not routed around instead of through a control device necessary to meet the applicable emission limit. The monitoring in many cases need not be more than a periodic verification check that a bypass is not in use.

Letter(s): Eli Lilly Company (VI-D-124); Texas Chemical Council (VI-D-236)

Comment c: Another commenter stated that EPA should establish that § 64.6(a)(4) does not override existing bypass monitoring exemptions. The commenter noted that rulemakings on underlying standards have addressed the need for bypass monitoring as well as its technical and economic feasibility, and that in some cases EPA has established alternatives (e.g., use of car seals) or created exemptions (e.g., emergency safety vent openings). Imposing monitoring in these cases would result in the underlying rule being made illegally more stringent, according to the commenter. Other commenters recommended deleting this requirement altogether for these and other reasons. The commenters cited to applicable standards where the extent to which bypass monitoring needs to be conducted was extensively negotiated. In addition, a commenter noted that since most standards prohibit bypassing of equipment, this monitoring appears aimed at catching only those few sources intent on illegal activity; such sources would be just as likely to disable the monitoring as bypass the control equipment. Finally, a commenter noted that the provision could be read to cover normal return of a gas stream to a process where the control device is used only as a backup. Another commenter noted that many processes could have numerous vents that could conceivably allow a bypass but that the operator would be able to detect and record such bypasses without emission detection equipment at each vent. If this requirement is retained, the commenter stated that EPA must provide greater detail on what is required.

Response: Part 64 is not intended to override applicable regulatory requirements; if rules include exemptions or alternatives related to bypass monitoring, the final rule clarifies that part 64 would not change those. The intent of the requirement to monitor the use of a bypass is as stated above and is included primarily for those situations for which a bypass is installed for emergency situations (e.g., to protect the control equipment in case of a process failure). The compliance certification requirements of part 70 require that source owners identify possible exceptions to compliance including periods in bypass operation. Monitoring to allow documentation of such situations (e.g., periodic checks of bypass damper settings) is appropriate; emissions monitoring of every potential bypass vent is not necessary if bypass can be detected by other means. While identifying scofflaws or reducing the opportunities for unlawful activities to go undetected may result by implementing part 64, part 64 monitoring is

primarily intended to produce data that owners and operators can use in determining compliance with applicable requirements.

Letter(s): Chemical Manufacturers Association (VI-D-152); Eastman Chemical Company (VI-D-173); Exxon Chemical Americas (VI-D-128); PPG Industries, Inc. (VI-D-136)

6.1.4: Use of Maintenance Records as Part of Monitoring

Comment a: One commenter argued that CAM should not require the keeping of maintenance records for compliance purposes. To the extent that proposed § 64.6(a) and (b) compel the maintaining of maintenance records for determination of compliance, the commenter stated that they are beyond the logical reach of section 114 of the Clean Air Act. The commenter argued that maintenance records are kept for repair purposes, not monitoring purposes.

Response: The provisions in § 64.6(a)(1) of the final rule allow an owner or operator to propose monitoring that includes as at least one component of the monitoring approach the "recorded findings of inspection and maintenance activities." The rule does not compel this approach as suggested in the comment.

Letter(s): American Electric Power (VI-D-129)

6.1.5: Specific Comments on Indicator Range Provisions

Comment a: One commenter stated that EPA should revise § 64.6(a)(3) because indicator ranges will have to be measured at varying operating conditions to ensure a valid range of data is obtained. The commenter noted that this issue was addressed in detail in UARG's October 10, 1995 comments.

Response: As noted in section 6.1.1 (Part III) above, justification for indicator ranges are supported by the results from performance testing supplemented with engineering evaluations, historical information, and vendor or manufacturer data. Because the performance testing data will generally reflect conditions representative of maximum emissions potential under the range of operating conditions anticipated, the Agency believes that

the aforementioned data will be sufficient to establish indicator levels for varying operating ranges without extensive performance testing.

Letter(s): American Electric Power (VI-D-129)

Comment b: Two commenters stated that the rule should address the procedure for selecting indicator ranges for situations in which applicable requirements are intended to cause installation and operation of particular equipment or the use of process parameters. The rule should make clear that where an emission limit is in effect a secondary or derived standard reflecting a typical or average emission rate expected to result from certain procedures, (1) the emission limit should not be used for developing indicator ranges, and (2) the rule does not require emission testing that is not otherwise required by applicable requirements. The commenters noted that such a provision is of potential importance to many small sources.

Response: Part 64 recognizes several situations for which additional justification or testing for establishing monitoring or indicator ranges is not necessary. The preamble to the final rule clarifies that, in accordance with § 64.4(b)(5), no additional justification is necessary for the operation and monitoring of flares covered by design criteria in 40 CFR 60.18. The Agency is reviewing similar relief for other requirements with specific design or similar stipulations.

Letter(s): Coalition for Clean Air Implementation (VI-D-164); DuPont Engineering (VI-D-127)

Comment c: One commenter requested clarification of who will be responsible for developing CAM indicators. In some places EPA states that development of indicators rests with the source, but in other sections indicates that regulators will develop the appropriate CAM indicators for specific control equipment according to the commenter. The commenter objected to state development of indicators due to lack of experience, knowledge and skills.

Response: The responsibility to develop and justify monitoring to satisfy part 64 is clearly the source owner or operator's responsibility; this responsibility includes establishing indicator ranges.

Letter(s): Public Service Company of Colorado (VI-D-219)

Comment d: One commenter recommended the addition of "or designated conditions" after "ranges" in § 64.6(a)(3). This revision is necessary because many indicators, such as "any visible emissions" or "the presence of a flame" are based on conditions but not numerical ranges.

Response: The Agency agrees with this suggestion, and the final rule reflects this suggestion.

Letter(s): Texas Chemical Council (VI-D-236)

Comment e: Two commenters requested that EPA clarify that the "indicators of performance" listed in § 64.6(a)(1) are not an exclusive list and one provided example text for the rule.

Response: The referenced list is not intended to be exclusive and the Agency believes the final rule is clear on this point.

Letter(s): Eastman Chemical Company (VI-D-173); Texas Chemical Council (VI-D-236)

Comment f: One commenter suggested that the words "recorded findings" should be eliminated from the reference to inspection and maintenance activities in § 64.6(a)(1) because inspection and maintenance procedures and policies should not require additional documentation for documentation's sake.

Response: As noted above, part 64 requires documentation sufficient for determining compliance status only. The term recorded findings should be interpreted to mean that level of documentation, not more.

Letter(s): Texas Chemical Council (VI-D-236)

Comment g: A commenter recommended revising § 64.6(a)(3) to read, in part, that "the reasonable assurance of compliance will be assessed by specified monitoring" The commenter stated that this addition of the term "specified" is necessary to clarify that the reasonable assurance of compliance is to be based on the monitoring prescribed by CAM and not any additional or unrelated monitoring.

Response: The referenced language in the 1996 part 64 Draft has been revised in the final rule and this comment is no longer applicable.

Letter(s): Texas Chemical Council (VI-D-236)

6.1.6: Backup Monitoring

Comment a: One state agency suggested that the CAM rule allow owners or operators to propose alternative "back-up" methods of monitoring which can be used for limited periods when the primary method of monitoring becomes unavailable. The commenter further suggested that the rule encourage owners or operators to include back-up methods of monitoring in their proposals since these back-up monitoring methods might only be available for a short time, but could help many sources to meet Subpart B performance criteria, such as data availability requirements.

Response: Part 64 certainly does not preclude the use of redundant monitoring to supplement the monitoring specified in the permit.

Letter(s): State of Illinois EPA (VI-D-183)

6.1.7: Techniques for Supplementing/Refining Basic Monitoring

Comment a: One state agency suggested that the rule should allow for the use of non-reference method continuous or periodic monitoring to supplement, or as an alternative to, parameter monitoring. Under the current rule, CAM plans would often include only parameter monitoring and no direct monitoring of emissions at all, according to the commenter, and thus this proposal would encourage the use of relatively low cost alternative continuous or periodic monitoring methodologies to ensure at least some

direct monitoring of emissions. The commenters recommended that these monitoring methods be subject to less rigorous quality assurance/quality control requirements than comparable reference methods for the same pollutants.

Response: Part 64 does not preclude the use of alternative emission monitoring approaches to supplement or in lieu of operational parameter monitoring. Periodic reverification of indicator ranges using such techniques is consistent with the quality assurance and quality control requirements in part 64. Such testing for reverification purposes or for other reasons may be accomplished using techniques acceptable to the permitting authority. Further, as noted earlier, the preamble to the credible evidence rule revisions make clear that compliance certifications may be based on information other than specified performance test results. One consideration in evaluating periodic testing to use in lieu of continuous parameter monitoring is the frequency of such testing and whether such testing is representative of the ongoing control device operations. In most cases, infrequent measurements with a test method (e.g., weekly, monthly, quarterly) is not sufficient to document ongoing compliance operations.

Letter(s): State of New Jersey Dept. of Environmental Protection (VI-D-215)

Comment b. A vendor recommended that the CAM rule include an incentive to adopt Sequential Parametric Refinement (SPR) which will strengthen CAM's effectiveness. According to the commenter, SPR is a process of continuous improvement that uses incrementally accumulated data, including periodic checks of direct emissions to test the model used to identify indicator ranges, and to refine the CAM approach and the indicator ranges adopted by the source. The commenter described SPR as similar to a pro-active presumptive QIP, and added that the incentives that could be offered to promote SPR could include limiting exposure to permit violations or positive recognition that the source uses data of increased reliability. The commenter argued that SPR addresses many of the concerns about CAM implementation, including the degree of parametric representativeness and reliability, effects of source emissions variability, effects of time and changes on emissions, ability to evaluate CAM plans on a common basis, and a scientifically sound basis for demonstrating compliance. As an example, the commenter included a

monitoring protocol that was submitted in connection with the OTC NO_x budget program that relies on SPR (including continuous parametric data and periodic low-cost, high-quality direct emissions data).

Response: As noted above, periodic reverification of monitoring indicator ranges is consistent with the QA/QC requirements in part 64. The Agency believes such regular activities are appropriate for the reasons mentioned by the commenter.

Letter(s): Enerac (VI-D- 227)

6.1.8: Miscellaneous Comments

Comment a: One commenter argued that Subpart B must provide for the same type of consideration of the acceptability of existing monitoring that is provided in Subpart C.

Response: The Agency agrees that the monitoring specified in many regulations is adequate as stipulated or with few adjustments to meet part 64 requirements. This is particularly true for regulations requiring the use of continuous emission monitoring systems. As such, the rule presumes the general adequacy of existing CEMS, COMS or PEMS applications and allows the owner or operator to justify its proposed monitoring at least in part on existing requirements that establish the monitoring for the applicable pollutant-specific emissions unit. On the other hand, many current regulations, including those developed by EPA, do not address monitoring sufficiently for compliance determination purposes. In many cases, the current rules specify monitoring of only a single operating parameter, omit any development of indicator ranges, fail to define averaging times, and fail to prescribe an appropriate response. In addition, the monitoring in current rules frequently are inappropriate for the control technology used in facilities constructed after the rule was published. Part 64 is intended to enhance current monitoring practices including revising or replacing that specified in existing rules if that monitoring is found inadequate.

Letter(s): Los Alamos National Laboratory (VI-D-210)

Comment b: Another commenter proposed adding the word "reasonably" to the phrase "where necessary to assure compliance" in § 64.6(a)(1) so that the rule's language reflects EPA's intent as stated in the preamble and elsewhere.

Response: The subject phrase is used in conjunction with defining pollutant capture equipment that is part of the pollutant control system necessary to achieve compliance with the applicable standard. In this context, the term "reasonable assurance of compliance" is inappropriate.

Letter(s): Texas Chemical Council (VI-D-236)

Comment c: A commenter suggested that the use of monitoring already determined to be adequate should be deemed acceptable. It will be common for sources to use monitoring under post-November 15, 1990 rules to satisfy CAM, according to the commenter, and owners or operators should not be forced to prove such monitoring is adequate.

Response: Part 64 includes an exemption from part 64 monitoring requirements for pollutant-specific emissions units subject to post-1990 EPA rules given that these rules will include monitoring requirements adequate to determine compliance with applicable standards. The owners of such units will not be required to justify that such monitoring satisfies part 64. In addition, § 64.4(b)(4) allows an owner or operator to rely on monitoring established in these exempt post-1990 standards as adequate for part 64 as applied to the same emissions unit for a different pollutant, if the same control equipment is used to control both pollutants. For instance, a post-1990 MACT rule may establish control device parameter monitoring to assure compliance with the MACT limits. If the same unit also uses the same control device to comply with an applicable VOC limit, this provision would allow the owner or operator to rely presumptively on the MACT precedent to satisfy part 64 for the VOC requirements.

Letter(s): Exxon Chemical Americas (VI-D-128)

Comment d: One commenter noted that the criteria of §§ 64.6(a)(1) and 64.6(a)(2) seem to be redundant.

Response: The final part 64 has been revised to remove repetitions, as necessary.

Letter(s): Class of '85 Regulatory Response Group (VI-D-161)

Section 6.2 Subpart B Performance Criteria

6.2.1: [Reserved]

6.2.2: Verification Requirements

Comment a: Several commenters stated that manufacturer and vendor recommendations should not be given presumptive weight in establishing performance requirements, and noted that there is no guarantee that such recommendations reflect good engineering standards. In addition, they stated that vendors may tailor recommendations to improve product marketing. One commenter argued that this requirement (and the similar requirement for QA/QC) could be read to require submission of construction drawings, detailed project schedules, and similar supporting documentation and involve hundreds of steps. The commenters recommended that the rule only provide that such recommendations may be considered. Another commenter stated generally that it supported the flexibility allowed to use procedures other than manufacturer recommendations. However, another commenter argued that the § 64.6(b)(2) documentation requirements are too burdensome. The commenter objected to the requirement to document modifications to installation requirements, calibration and start-up, especially where the monitoring system is already in place. This requirement would only make the CAM plan more complicated and is unnecessary due to general requirements to properly operate and maintain monitors according to the commenter. Another commenter noted generally that although this section is labeled "performance criteria" it is really a mix of criteria and submission requirements. The commenter recommended revising § 64.6(b) to be a short list of performance criteria and moving all documentation requirements to § 64.7.

Response: The final part 64 has been revised to clarify that documentation of monitoring adequacy may be based on a number of information sources with presumption applied only to performance test data. Further, the rule has been reformatted to clarify and differentiate between minimum permit requirements and other documentation elements.

Letter(s): American Automobile Manufacturers Association (VI-D-157); Eastman Chemical Company (VI-D-173); Exxon Chemical Americas (VI-D-128); General Electric Company (VI-D-156); Southern Company Services (VI-D-171); Texas Chemical Council (VI-D-236)

Comment b: One commenter recommended that § 64.6(b)(2) be applicable only where the monitoring involves new or modified monitoring.

Response: Part 64 has been revised to clarify this and other documentation requirements.

Letter(s): Exxon Chemical Americas (VI-D-128)

6.2.3: QA/QC Criteria

Comment a: Some commenters stated that manufacturer and vendor recommendations should not be given presumptive weight in establishing QA/QC requirements. See detailed summary under section 6.2.2.

Response: See the response to the same comments in section 6.2.2 (Part III), above.

Letter(s): American Automobile Manufacturers Association (VI-D-157); Exxon Chemical Americas (VI-D-128); General Electric Company (VI-D-156); Southern Company Services (VI-D-171)

Comment b: One commenter argued that part 64 should not require the inclusion of QA/QC practices in operating permit applications. Including such practices in the permit application will make it more difficult to improve or alter QA/QC practices because such changes could only be made through a burdensome permit revision process.

Response: The Agency disagrees. There are several examples of federal rules that specify minimum QA/QC practices. See 40 CFR 60.13 (general QA/QC for CEMS and COMS); subpart O, 40 CFR 60.153 (periodic calibration of parameter monitors). The part 64 requirements are designed to build on these types of existing requirements. The part 64 requirements do not require complete QA/QC plans or SOPs to be incorporated into a permit.

Sources are always free to improve and alter QA/QC practices so long as the minimum required QA/QC is still performed.

Letter(s): Texas Chemical Council (VI-D-236)

6.2.4: Monitoring Frequency Requirements

Comment a: One commenter argued that the requirements should be more specific. The commenter noted that the provisions for sources to propose frequency of monitoring, data collection procedures, and averaging periods are too vague and invite owners to devise monitoring that is too lenient to detect excursions and exceedances. Another commenter suggested that EPA should clarify that the monitoring frequency criteria do not require continuous monitoring. Since certain language in § 64.6(b) and EPA's statement in the preamble that "this requirement could result in frequent, near continuous collection of parametric data . . ." could be interpreted to require continuous monitoring for Subpart B units, the commenter stated that EPA should make it clear in the rule that continuous monitoring is not required and develop guidance materials describing appropriate approaches to satisfying the monitoring frequency criteria assuming this is not EPA's intent.

Response: The Agency agrees that the frequency of data collection for monitoring is one the rule should specify in more detail. The Agency has revised the rule to include a presumptive monitoring data collection frequency (i.e., at least one value every 15 minutes) for units with post-control emissions greater than the major source threshold. The owner or operator may submit site-specific justification for less frequent monitoring at such units. Data collection frequency for smaller units may be less but at a minimum should provide for at least some form of daily check. For instance, an owner or operator could visually check a small carbon adsorber for continued operation on a daily basis and then conduct a less frequent periodic check for breakthrough (such as testing the device with a portable analyzer every two weeks, or other time frames appropriate for the device's adsorption cycle).

Letter(s): Natural Resources Defense Council (VI-D-151); Specialty Steel Industry of North America (VI-D-143); Steel Manufacturers Association (SMA) (VI-D-144)

Comment b: One commenter suggested that the rule allow for a graduated frequency based on performance. For instance, the commenter stated that sources with few excursions/exceedances should be able to monitor less frequently. Another commenter added that this concept of rewarding good performance should be extended to reducing other part 64 requirements, such as reduced reporting.

Response: The Agency agrees that incentives for reduced monitoring or reporting requirements can be effective for some situations and part 64 does not preclude the application of such incentives through the permitting process. On the other hand, part 64 is a broadly applicable rule for which such incentives or other site-specific elements can not be adequately described or controlled.

Letter(s): Air Control Techniques, P.C. (VI-D-202); Eli Lilly Company (VI-D-124)

Comment c: One commenter argued that the rule should presume the appropriateness of longer versus shorter averaging periods. The commenter noted that, if the data are averaged over too short a time, sources could initiate misguided corrective action that actually increases emissions and damages equipment.

Response: The Agency believes that part 64 should make no presumption about averaging times except to confirm that the averaging time be representative of the characteristics of the control technology and provide data at a frequency sufficient to allow effective and timely correction, as necessary. The source owners have the opportunity and responsibility to identify appropriate averaging times to accomplish this purpose.

Letter(s): Air Control Techniques, P.C. (VI-D-202)

6.2.5: Data Availability Provisions

Comment a: Certain commenters supported the 90 percent data availability requirement or requested a higher data availability. A state agency association recommended that EPA retain the proposed data availability requirement with only a narrow exemption for sources that demonstrate

extreme economic hardship. A state agency urged EPA to investigate and require greater data availability for those monitoring systems that have demonstrated through existing installations that they can achieve data availability greater than 90 percent, such as CEMS, PEMS, and parameter monitoring systems. For example, CEMS installed and certified in the commenter's state routinely meet or exceed data availability of 95 percent. An environmental group suggested that the rule should not allow a percentage of data availability lower than 90 percent under any circumstances, even if an underlying rule requires less data availability. A data gap of 10 percent, for example, could represent the need to implement a QIP twice over, according to the commenter, and thus lower data availability could allow significant violations of emission standards to go unnoticed.

Several industry commenters, however, argued that the default 90 percent data availability requirement is too stringent. They stated that the 90 percent level in the rule is substantially more stringent than several recent MACT standards despite EPA's statement at the July 1996 stakeholders meeting that one of the principles of CAM was to build on current monitoring requirements. For example, the recently-issued Polymers & Resins Group 1 MACT requires 75 percent data availability. 40 CFR 63.505(g)(1)(ii). The SOxMI HON data availability requirement is also 75 percent. 40 CFR 63.152(c)(2)(ii)(A)(2) and (A)(3). Thus, they argued, under the current CAM draft, there would be a lower data availability requirement for air toxics than for criteria pollutants. One of the commenters recommended setting the CAM minimum data availability standard at 75 percent, and retaining the option to seek adjustment of the data availability level on a unit specific basis, which would be triggered too often with a 90 percent requirement. The commenter also stated that it is not aware of any EPA regulations other than the one cited in the preamble that have a data availability requirement of 90 percent. One commenter argued that the requirement should be eliminated or set at what is necessary to provide a reasonable assurance of compliance. One commenter argued for a lower data availability because the amount of instrumentation involved in a CAM plan could be significantly higher than with a gas monitoring system. Another argued that the costs of trying to meet the 90 percent requirement are prohibitive, and suggested that 80 percent would be a reasonable alternative.

Certain commenters stated that, based on CEMS experience, the amount of downtime under ideal circumstances is at least 6-7.5 percent of the time. Since most sources operate under less than ideal circumstances, the commenters stated that the rule must have adequate flexibility to provide for downtime associated with routine maintenance as well as downtime associated with unscheduled maintenance and malfunctions; otherwise, costly redundant systems may be necessary. They recommended that the rule include no presumptions. Another commenter argued that since under NSPS one invalid 15-minute data point invalidates an entire hour of data, a 30-minute QA check that straddles two hours and 3 more invalid 15 minute periods would invalidate a day's data. Finally, another commenter argued similarly that the 90 percent value is arbitrary and likely to be unachievable unless the rule makes appropriate provision for calibration, maintenance and repair.

Another commenter stated that the CAM rule should not set a data availability requirement of "at least" a certain percentage where it is clear the percentage is supposed to be a presumptive guideline that may be adjusted upward or downward by permitting authorities. In addition, there is no justification for requiring any higher degree of data availability than whatever is necessary to reasonably assure compliance.

Industry commenters also argued against any presumptive amount based on the diverse set of sources and monitoring requirements to which the rule will apply. One commenter stated that EPA should not attempt to define a generic data availability requirement, but should allow for different levels depending on the significance of the source and the monitoring method. Others also noted that EPA should give the source and the permitting authority the opportunity to work it out in the CAM plan. If the rule requires monitor availability to be included as a permit term, they stated that the rule must at least provide the flexibility for ensuring that the specification is clear and can be met. Another industry commenter argued that the mandatory 90 percent data availability requirement is an example of how the rule does not provide adequate latitude for permitting authorities.

Similarly, commenters noted that it is inappropriate to establish a presumptive data availability requirement under a program like CAM where monitoring may be new or experimental. They argued that EPA has no technical basis for the presumption and must allow for many

complex issues to be resolved in establishing a data availability requirement. The relative stringency of an availability requirement depends on numerous factors, such as monitor accuracy specifications, number of data points for a valid average, number of averaging periods in a reporting period and the length of the reporting period. One commenter argued that EPA must explain the technical basis for requiring at least 90 percent data availability. A state agency suggested that the 90 percent data availability requirement should be issued as guidance similar to the NSPS excess emission report program. This would allow permitting authorities to address the data availability requirement on a case by case basis since in some cases, less availability may be warranted and in others more may be warranted the commenter argued that a single presumption could lead to inappropriate requirements.

Response: The Agency agrees that monitoring should be conducted to the extent feasible all the time the affected pollutant-specific emissions unit is operating and that a separate permit condition specifying an enforceable minimum data availability limit is essentially a case-by-case determination. Part 64 has been revised to delete the specific minimum data availability requirement and to clarify the general duty requirement to operate and maintain monitoring continuously (except for malfunction, associated repair, or required QA/QC periods). Monitor malfunctions are limited to situations that are not reasonably preventable by the owner or operator. Specific minimum data availability requirements may be addressed on a permit-specific basis.

Letter(s): American Automobile Manufacturers Association (VI-D-157); Association of Battery Recyclers (VI-D-155); Baltimore Gas and Electric Company (VI-D-177); Chemical Manufacturers Association (VI-D-152); Chevron Companies (VI-D-132); Clean Air Implementation Project (VI-D-153); Colorado Association of Commerce and Industry (VI-D-182); DuPont Engineering (VI-D-127); Eastman Chemical Company (VI-D-173); Exxon Chemical Americas (VI-D-128); General Electric Company (VI-D-156); Natural Resources Defense Council (VI-D-151); Nebraska Department of Environmental Quality (VI-D-211); NESCAUM (VI-D-192); Ohio EPA, Division of Air Pollution Control (VI-D-180); Pharmaceutical Research and Manufacturers of America (VI-D-217); Phillips Petroleum Company (VI-D-131); Rubber Manufacturers Association (VI-D-149); South Carolina Electric & Gas Company (VI-D-116); Southern Company Services (VI-D-171); Southwestern Public Service Company (VI-D-224); Texas Chemical

Council (VI-D-236); UCAR Carbon Company, Inc. (VI-D-122); Utility Air Regulatory Group (VI-D-140); Wisconsin Electric Power Company (VI-D-130)

Comment b: Another state agency supported a 90 percent data availability requirement to the extent that the requirement applies under normal circumstances. The agency recommended that the rule explicitly grant discretion to the permitting authority to address the impact of unusual circumstances such as catastrophic failures of instrumentation and malfunctions of relatively short duration on data availability. The agency noted that such failures or malfunctions can be magnified in percentage terms due to reduced source operating time. As an example, this commenter discussed the fact that a 24 hour failure of a monitoring system at a backup unit with 200 operating hours during a period may not be a source of concern even though the malfunction results in a 12 percent monitoring downtime.

Response: See response to Comment a, above.

Letter(s): State of Illinois EPA (VI-D-183)

Comment c: One agency stated that the data availability requirements should include an option for monitoring equipment required to have an alarm or an interlock which reacts when monitored parameters exceed or fall below a certain level. The commenter stated that there should be no requirement that units using such equipment must continually record the monitored parameter during normal operation, and discussed an example of an afterburner required to maintain a minimum temperature and required to install an alarm which goes off if the minimum temperature is not maintained.

Response: Part 64 has been revised to clarify minimum data collection frequency; that is, the frequency at which measurements are made and used. Data recording frequency, whether for individual data points, averages, or alarm indications can be specified on a site-specific basis, as necessary.

Letter(s): South Coast Air Quality Management District (VI-D-233)

Comment d: One trade association requested EPA to confirm that the minimum data availability requirement would be calculated based on the percentage of time that the monitoring equipment was in service, excluding from the denominator time that the equipment was down for routine or scheduled calibration and maintenance. Another commenter stated that the rule should clearly exempt start-up, shut-down and malfunction periods in determining data availability, particularly when not addressed by underlying standards. One commenter recommended that the data availability requirement account for seasonal operations by adding "while the plant is in operation" to § 64.6(b)(5). Certain commenters requested that EPA explain how the data availability percentage is determined. A state agency requested specific examples. Another commenter stated that it believes that the provision is intended to apply to the monitoring frequency and associated number of samples or measurements indicated by the CAM plan, but that the language could be interpreted to apply to the number of averaging periods during which the source is in operation. Another commenter elaborated on this ambiguity and stated that the first alternative is overly stringent in comparison to the 75 percent data availability requirement in other recent regulations. This commenter felt that the second interpretation could be acceptable if EPA sets a level of data required within each averaging period at a reasonable level such as 75 percent.

Response: The Agency believes that data availability, if required as a separate permit requirement (see response to Comment a, above), is correctly calculated based on the operating time of the pollutant-specific emission unit and may include allowances for specific monitoring downtime periods, as appropriate.

Letter(s): Chemical Manufacturers Association (VI-D-152); Dow Chemical Company (VI-D-120); DuPont Engineering (VI-D-127); South Coast Air Quality Management District (VI-D-233); The Fertilizer Institute (VI-D-145)

Comment e: Two commenters stated that the provisions giving permitting authorities the discretion to require a data availability percentage of greater than 90 percent should be eliminated. One of the commenters recommended revisions to § 64.6(b)(5)(ii) to eliminate permitting authority discretion to require greater than 90 percent data availability. This commenter also stated that 90 percent is the highest achievable data availability based on

prior EPA studies showing that CEMS experience outages for at least 10 percent of their operating times due to equipment failure and malfunction.

Response: See response to Comment a, above.

Letter(s): NorAm Gas Transmission Company (VI-D-1452); Southern Company Services (VI-D-171)

Comment f: An environmental organization requested that the rule ensure that all valid data is required to be reported even if a minimum data availability is exceeded. The organization noted that it is necessary to avoid the rule being construed to allow owners to drop their worst data.

Response: The Agency agrees and part 64 includes a requirement that "The owner or operator shall use all the data collected... in assessing the operation of the control device and associated control system."

Letter(s): Natural Resources Defense Council (VI-D-151)

Comment g: One commenter requested an exemption from § 64.6(b)(5)(ii) for units whose monitoring includes missing data substitution procedures. The commenter noted that requirements such as those in part 75 that use punitive data substitution for periods of missing data encourage units to correct monitoring problems expeditiously. Units that use such monitoring protocols should not be subject to the 90 percent data availability requirement according to the commenter.

Response: Missing data substitution is appropriate for mass emission trading programs to ensure equitable trading. Such missing data substitution procedures are not appropriate for ongoing determinations of compliance with applicable requirements on a pollutant-specific emission unit basis.

Letter(s): Class of '85 Regulatory Response Group (VI-D-161)

6.2.6: Miscellaneous Subpart B Performance Criteria Issues

Comment a: Certain commenters argued that the performance criteria are at odds with the intent stated in the preamble and general criteria provisions. They argued that the requirement in the introductory text of § 64.6(b) that CAM plans be designed to provide reliable data for detecting an exceedance or excursion contradicts the stated goal of documenting operation of controls to provide a reasonable assurance of compliance. Moreover, one of the commenters asserted that even the preamble does not completely reflect the original intent of CAM to generate an understanding of whether controls are performing as envisioned. Other commenters stated that EPA apparently expects to have a parameter that reflects reference test method compliance with an underlying standard. However, correlating parameter data with emissions is expensive and difficult and in some cases not even possible, according to the commenter.

Response: The language concerning reliable data has been revised to reflect more clearly the Agency's intent. As discussed in detail in Section 6.1.1 (Part III), above, the goal of part 64 is to provide a reasonable assurance of compliance by monitoring the operation of control devices and, as necessary, capture systems and processes. It is not a requirement of part 64 to have a parameter that reflects with absolute precision reference test methods results. However, the monitoring must indicate that control devices and other critical operations have not changed adversely in a manner that result in violations of applicable requirements.

Letter(s): Clean Air Implementation Project (VI-D-153); Exxon Company, USA (VI-D-135); National Environmental Development Association (VI-D-169)

Comment b: One commenter noted that the performance criteria do not seem appropriate for non-hardware monitoring approaches. The commenter suggested that the requirements that apply solely to hardware systems (such as (b)(2) and (3)) should be clearly distinguished from more generally applicable requirements.

Response: The Agency believes that the performance criteria are sufficiently general to apply to noninstrumental monitoring techniques, but also notes that the phrase "monitoring equipment" is used where appropriate to indicate performance criteria that are aimed at hardware monitoring approaches.

Letter(s): Exxon Chemical Americas (VI-D-128)

Comment c: One commenter stated that EPA has not demonstrated that a monitoring program can be developed for most control devices under which indicator ranges will show that unit emissions satisfy all emission limits or standards. The commenter argued that in order for indicator ranges to be a reasonably reliable means of assuring compliance, the monitored parameter or parameters must fall outside the indicator range during every set of control device and process conditions which result in the violation of applicable standards which would require monitoring which directly expresses the emission rate as a function of monitored parameters. The commenter quoted a paper entitled "An Independent Review of CAM" to support the concept that it is impossible to directly correlate monitored parameters and emission rates and concluded that the use of indicator ranges has not been proven to be sufficiently reliable to assure compliance with applicable limits. Another commenter used sewage sludge incinerators as an example, providing detailed review of EPA studies on the lack of a meaningful correlation between operating parameters and particulate matter emissions for these incinerators, as well as the results of a long-term study involving the commenter's incinerators. The commenter noted that this same issue applies to the possible use of opacity to assure compliance with particulate matter limits. For sewage sludge incinerators with venturi scrubbers, commenter described how past studies have documented no strong correlation between PM emissions and opacity. Thus, the commenter disagreed with EPA's contention that opacity levels are generally set high enough to represent likely PM exceedances.

Response: The Agency agrees direct correlation between monitored parameters and emission rates can be difficult, expensive, and sometimes impossible with any specific degree of certainty. This is a primary reason the CAM rule requirements include the use of design, historical, and other information in conjunction with performance test results for establishing indicator ranges that provide a reasonable assurance of compliance, not an absolute statistical correlation. On the other hand, the Agency believes the commenter has misinterpreted the conclusion in Mr. Richards' paper (docket item A-91-52-VI-I-6) and other similar evaluations that parameter monitoring is incapable of providing a reasonable assurance of ongoing compliance performance. As noted in response to Comment b of 6.1.1 (Part III), direct measurement or a statistical correlation analysis of operating parameters with emission values is not necessary in order to

establish compliance status; however, there are many examples of parameter measurements that provide a very good indication of control device performance sufficient to meet part 64 requirements. Mr. Richards' paper provides several examples of such situations. Mr. Richards' paper does note that CAM will not be based on a precise correlation between parameters and emissions and will not provide data on actual emissions; however, Mr. Richards concludes that monitoring under the CAM approach should be able to identify "significant emission increases." Any comments by Mr. Richards that appear critical of the CAM approach's ability to provide a reasonable assurance of compliance may be due in part to Mr. Richards' admitted misapprehension regarding the breadth of the technical justification required for CAM plans.

The Agency also recognizes that the relationship between a particular parameter measurement and compliance may not be adequate. This may very well be the case with the relationship between opacity and particulate matter emissions especially when applied to a scrubber for an incinerator or any other combustion device because of condensing moisture acting as interferences in opacity measurements and other condensable materials producing highly variable opacity results. For such situations, part 64 requires that the monitoring should not include that parameter or supplement it with measurements of additional control device operational parameters. Part 64 provides the framework for establishing adequate monitoring; the rule does not specify which parameters are more appropriately monitored for specific situations.

Letter(s): S. Fitzsimmons (VI-D-201); Metropolitan Council (VI-D-214)

Section 6.3: Use of CEMS, COMS, PEMS in Subpart B

Comment a: One commenter believed that sources using CEMS, COMS and PEMS should not be required to develop CAM plans. The commenter recommended revising § 64.6(c)(2) to replace the phrase "to satisfy the general design criteria . . ." with "exempt from this part 64". The commenter argued that sources using CEMS, COMS or PEMS and satisfying the requirements of this provision should already provide reasonable assurance of compliance; requiring further documentation would be overly burdensome and duplicative.

Response: For pollutant-specific emission units with CEMS requirements, part 64 requires only that the permit reflect that CEMS will be used in lieu of other parameter monitoring as described in part 64. Provided that the CEMS is operated in accordance with other applicable requirements, no other documentation is necessary.

Letter(s): Texas Chemical Council (VI-D-236)

Comment b: Some commenters argued that sources should not be required to use existing CEMS, COMS or PEMS for part 64 purposes. The commenters argued that this requirement could have the effect of establishing indicator monitoring as reference method data for standards. Another commenter stated that sources should have the choice of whether or not to use COMS for establishing indicator ranges in CAM plans, particularly if the source has a particulate matter limitation (where there may be a relationship at the particular source between opacity and PM).

Response: The requirement that CEMS, including COMS used to measure an opacity limit that applies as a surrogate limit for particulate matter control and PEMS as an approved alternative to CEMS, required by rule be applied to satisfy part 64 is consistent with 40 CFR 70.6(a)(3).

Letter(s): American Automobile Manufacturers Association (VI-D-157); Baltimore Gas and Electric Company (VI-D-177); General Electric Company (VI-D-156)

Comment c: An industry coalition stated that sources using CEMS, COMS, and PEMS should not be required to redesign their systems to allow for reporting of exceedances. The commenter noted that incorporating a data averaging period so that the monitoring results can demonstrate exceedances may be complicated, costly or even impossible, and thus this sort of design change should be optional. Another commenter stated that the monitoring instrumentation should not need to produce data in the same terms as an applicable emission limit or standard. The commenter suggested that EPA should clarify § 64.6(c)(3)(ii) so that the monitoring instrument does not have to produce data in the "exact units" of an emission limit or standard so long as a CAM plan includes a calculation or calculations which convert monitored measurements to values

comparable with applicable standards. Another commenter also requested that EPA clarify § 64.6(c)(3) so that it is clear that the instrument does not have to produce data in terms of the emission limit if the source can convert the instrument data using standard engineering conversions.

Response: The requirement in part 64 for the owner to use data from CEMS, COMS, or PEMS in satisfying part 64 applies to such monitoring as required by an underlying regulation. The rule clarifies that data from such monitoring shall be consistent with the applicable standard rather than insist that the data be reported in the actual units of the emission limitation if such conversions can be provided elsewhere. The additional description of such monitoring is intended to reduce the burden of preparing justification beyond the customary applicable QA/QC requirements in addition to ensuring the quality of data produced. The requirements in this section are not intended to apply to the use of similar technology used for monitoring internal operations (i.e., process monitoring) unless the source owner determines to use such monitoring to satisfy CAM requirements.

Letter(s): Clean Air Implementation Project (VI-D-153); Phillips Petroleum Company (VI-D-131); Texas Chemical Council (VI-D-236)

Comment d: Some commenters argued that COMS should not be subject to indicator ranges. One commenter stated its belief that EPA did not intend to require that all COMS be subject to the criteria for establishing indicator ranges. If the source has an opacity standard for which a CAM plan is required, the commenter understood the draft rule to require that the opacity standard be used in lieu of an indicator range for that plan. Further, if the source has a particulate matter limitation for which a CAM plan is required, the commenter understood that it would be the source's choice whether to use the COMS in a particulate matter CAM plan (based on the relationship at the particular source between opacity and PM). Thus, the following change is suggested: "...provided that if a COMS is used in a particulate matter CAM plan, that COMS shall be also subject to the criteria for establishing indicator ranges under paragraph (a)(3) of this chapter as it applies to the particulate matter CAM plan." Steel industry commenters argued that indicator ranges are unnecessary and inappropriate for many sources required to use COMS. For example, for electric arc furnaces, the NSPS require some sources to use a COMS to

monitor the applicable 3 percent opacity standard. These commenters argued that this opacity standard is directly correlated to the applicable particulate matter standard. Requiring an indicator range below the opacity standard would increase the stringency of the underlying particulate matter standard, according to the commenters. The commenters also noted that it would be difficult to establish a range below what is essentially a no visible emissions standard. An electric utility provided a detailed summary of correlation testing done at several units operated by the commenter which show that the particulate matter standard is met even with opacity levels at or above the applicable opacity standard. Therefore, the commenter disagreed with assertion in the discussion document that opacity levels near the opacity standard likely represent particulate matter exceedances and EPA's conclusion that lower opacity "indicator ranges" are therefore appropriate.

Response: The commenter is correct that a COMS required for monitoring opacity by an applicable standard may be applied at the source owner's option for monitoring of particulate matter control measures. If the COMS is used in monitoring for particulate matter control, the requirement to establish appropriate indicator ranges is appropriate given that the regulatory limits for opacity do not necessarily represent conditions for minimizing particulate emissions. See Section II.C. of the preamble to the final rule for further discussion. On the other hand, the rule is not intended to invalidate any separate regulatory requirement to correlate opacity values with specific emission values as described for the steel industry regulations. A monitoring system that provides, by rule, exceedance of a specific opacity limit coincides with an exceedance of the applicable particulate emission limit is consistent with the definition of a CEMS or PEMS in part 64 and, as such, must be used as the underlying rule requires.

Letter(s): Specialty Steel Industry of North America (VI-D-143); Steel Manufacturers Association (SMA) (VI-D-144); Tennessee Valley Authority (VI-D-162); Utility Air Regulatory Group (VI-D-140)

Comment e: One commenter stated that any surrogate opacity CAM plan should have the same averaging period as the applicable standard. The commenter asserted that opacity has always been used as a surrogate for demonstrating PM control equipment operation, and for CAM, the opacity

should have the same averaging period as in the underlying standard (such as a 3-hour average of 20 percent as in the power plant NSPS). Another commenter suggested that if a COMS is used as a surrogate for particulate matter, then the averaging period should be consistent with the underlying particulate matter standard, i.e., longer than 6 minutes, especially given EPA's statement that the opacity indicator range should generally be set below the applicable opacity standard and the fact that EPA can use the data for enforcement.

Response: The Agency agrees with the commenter that the averaging time for an indicator range using COMS as part of the monitoring need not be the 6-minute average required for opacity monitoring. Part 64 makes clear that the averaging time for indicator range monitoring be commensurate with the time period over which a change in the control device performance that could require actions by the source owner to return operations to normal conditions is likely to be observed. The rule does not intend that this time be the same, or either shorter or longer, than the averaging time of the applicable emission limitation.

Letter(s): Kennecott Corporation (VI-D-119); Texas Utility Services, Inc. (VI-D-121)

Comment f: One commenter stated that § 64.6(c)(3)(iii) should be revised to allow for reporting of excursions as well as exceedances. A commenter suggested that exceedances that occur during excused periods be reported as excursions.

Response: The final rule adds the phrase "or excursions if applicable to a COMS used to assure compliance with a particulate matter standard." This revision accounts for the only situation in which a CEMS, COMS or PEMS can provide "excursion" data as opposed to "exceedance" data. The Agency disagrees with the concept that exceedances during potentially excused periods should be classified as "excursions" because that approach is inconsistent with the definitions of these two terms.

Letter(s): Chemical Manufacturers Association (VI-D-258); General Electric Company (VI-D-156)

Comment g: Utility commenters argued that the test for determining averaging times for exceedances should be similar to the one provided by EPA for determining the appropriate averaging period for determining when an "excursion" has occurred. The test should be the time period over which an exceedance is likely to be observed based on the characteristics and typical variability of the PSEU.

Response: Part of the definition of exceedance is that it be consistent with any averaging period specified by the applicable rule. The Agency does not intend to revise any existing requirements with publication of part 64 including averaging times specified in applicable rules for determining excess emissions. However, if an underlying rule is silent on this issue, the final rule does cross-reference the criteria in § 64.3(b)(4) for establishing an appropriate averaging period.

Letter(s): South Carolina Electric & Gas Company (VI-D-116); Utility Air Regulatory Group (VI-D-140); Virginia Power (VI-D-226)

Comment h: One local agency recommended that the § 64.6(b)(3) quality assurance and control provisions should require that sources using CEMS follow 40 CFR 60, Appendix F. The commenter noted that in the discussion of § 64.6(b)(3), EPA states that the QA/QC program in 40 CFR 60, Appendix F, is not required for CEMS because they are not being used for "direct continuous monitoring compliance," and the discussion states that only the 40 CFR 60, Appendix B requirements of an initial CEMS calibration drift test and RATA test followed by daily zero and span calculations need be met. The agency stated that the more rigorous Appendix F program, including quarterly calibration gas audits and annual RATA tests, is needed to verify ongoing accuracy.

Response: Appendix F was developed specifically for the verification of data where a CEMS is established as the test method for making continuous compliance determinations. The Agency believes that less rigorous QA/QC is sufficient for CEMS used to demonstrate a reasonable assurance of compliance with emission standards.

Letter(s): San Diego County Air Pollution Control District (VI-D-191)

Comment i: One commenter argued that § 64.6(c) should be revised to allow sources to demonstrate that any and all existing monitoring, and not just CEMS, COMS, and PEMS, meets Subpart B requirements. The commenter noted that if EPA continues to base Subpart B applicability on pre-control device emissions, EPA should revise § 64.6(c) to allow sources to demonstrate through petitions to their permitting authority that monitoring requirements in existing permits or under existing regulations are sufficient to meet Subpart B CAM requirements. For example, if an existing construction permit requires the installation, operation, and monitoring of a specified monitoring approach which does not meet the definition of a CEMS, COMS, or PEMS, the rule should explicitly state that the source can demonstrate that such required monitoring satisfies Subpart B according to the commenter. The commenter concluded that imposing duplicative monitoring requirements on these types of sources will result in little or no environmental benefit.

Response The provisions in § 64.4 explicitly allow for this approach. The Agency has not presumed the appropriateness of such other approaches but does allow a source to propose that its existing monitoring is adequate to satisfy part 64.

Letter(s): Pharmaceutical Research and Manufacturers of America (VI-D-217)

Comment j: A vendor organization argued that the draft rule creates a disincentive to use CEMS. The commenter expressed concern that the requirement in § 64.6(c)(3) that all CEMS installed to meet CAM must allow for reporting of exceedances would discourage sources from choosing CEMS because the credible evidence rule would allow for the use of such data in enforcement actions and stated that few sources would therefore choose a monitoring approach with a direct bearing on compliance status.

Response: The Agency disagrees that part 64 provides disincentive to install CEMS on two counts. First, part 64 provides relief from the additional documentation that part 64 requires if the CEMS is required by an applicable requirement and reports data in units of the applicable emission limitation or standard. This stipulation that data must be reported in units of the applicable standard would not apply for CEMS proposed by the owner or operator to satisfy CAM if no CEMS were required under the applicable requirement. Second, part 64 does not

require that data from CEMS not required by the applicable rule be used as part of determining control device indicator ranges. This is not to say that such data may not be subject to use as credible evidence of emissions violations; that is not an issue with part 64 but with evidentiary decisions made in the courts.

Letter(s): Institute of Clean Air Companies (VI-D-139)

Comment k. One industry commenter opposed imposing § 60.13 and Appendix B requirements on CEMS or COMS used for CAM unless they are necessary to meet CAM performance design requirements.

Response: The final rule states that a CEMS or COMS that meets these requirements (or other comparable requirements such as those in 40 CFR 51.214 or Appendix P of part 51) is deemed to satisfy the part 64 design criteria. The rule does not exclude the possibility that an owner or operator could propose a CEMS or COMS that does not meet these requirements. However, any such proposal would not be entitled to the presumptive acceptability provisions in § 64.4(b).

Letter(s): Exxon Chemical Americas (VI-D-128)

Section 6.4: Cost/Source Features as Factors in Monitoring Selection

Comment a: Several industry commenters recommended specifically requiring a cost-effectiveness consideration as part of the criteria for selecting monitoring under part 64. A number of commenters proposed criteria to determine what constitutes a "reasonable assurance of compliance." According to the commenters, to determine what monitoring methodology provides a level of assurance that is reasonable, the cost of the methodology should be considered in light of the following factors: 1) Reliability of the control methodology, where applicable; 2) Actual and potential emissions of the unit; 3) Emissions variability and pollutant characteristics; and 4) Reliability of the monitoring methodology. The commenters stated that a facility would consider whether current monitoring is appropriate considering these factors. The commenters pointed out that if the source determines additional monitoring is needed, it would explain qualitatively how it reached its conclusions, and a

permitting authority would either accept the proposal or suggest another alternative, having evaluated the same factors and compared the incremental cost of the source's proposal vs. the permitting authority's proposal. The commenters also suggested that the rule include a mechanism for the source to appeal the permitting authority's decision, and that EPA explain in the preamble how these factors are to be applied in practice. For example, where a source uses a highly reliable control method or has historically had emissions well below the emissions limit, the commenters argued that a more expensive monitoring method would not be justifiable. Very reliable, but more expensive, monitoring would be reasonable where sources have historically operated at the emission limit or have highly variable emissions, according to the commenters.

The commenters noted that leaving cost-effectiveness out of unit-specific CAM decisions could lead to imposition of costly monitoring on insignificant units. A number of commenters also noted generally that sources should be allowed to select the least costly CAM plan which can reasonably assure compliance and satisfies the rule's technical criteria. In addition, a commenter stated that agencies which propose any additional or replacement monitoring plans should also be required to consider cost effectiveness and choose those plans that can reasonably assure compliance at least cost. Under this approach, commenters argued that states would have the burden of demonstrating that their recommended protocol is more appropriate in terms of performance and additional costs. Another commenter proposed adding a definition of "cost-effective" to § 64.1 and revising draft §§ 64.6, 64.7, and 64.9 to clarify that cost-effectiveness is a factor to be considered in determining what monitoring is required by CAM.

Steel industry commenters noted that if the rule does not explicitly provide for the consideration of cost as a factor in monitoring selection and CAM plan evaluation, states could establish a "top-down" approach to monitoring selection. The commenters opposed such an approach as contrary to both section 504(b) of the CAA, which provides that CEMS are not required where alternative monitoring methods are available and the legislative history of the 1990 CAAA. These commenters argued that, if sources can demonstrate that there is no cost-effective monitoring method which satisfies the rule's technical criteria, the rule should allow sources the option of proposing either monitoring that nearly meets the criteria or the use of no monitoring rather than requiring them to

implement monitoring which is not cost-effective. They stated that such an option is consistent with the statement in the preamble that sources need not be considered in noncompliance if they cannot or do not certify to being in continuous compliance.

Other commenters argued that the rule should distinguish between significant and insignificant sources. The likely effects of applying one set of criteria to such a wide range of sources will be uncertainty as to what is required and conflicts during the permitting process as individual permit writers apply their own subjective interpretations of these provisions, according to the commenters. A commenter stated as an example, that the rule would basically require the same monitoring for a vent with controlled emissions of 1 ton as a vent with controlled emissions of several hundred tons. Assuming the two vents used the same basic control device (except for size), the commenter argued that the draft CAM criteria would not allow distinguishing what is appropriate for these two situations. This commenter also pointed to the preamble discussion which hints that continuous monitoring is likely for most types of control devices in order to meet the frequency performance criterion. The commenter argued that, besides being a legal violation, this approach is bad policy that at a minimum will lead to different interpretations in different jurisdictions.

Finally, this commenter cited to several provisions in the current draft at which EPA appears to specifically exclude consideration of cost as an appropriate criterion, including the factors listed in § 64.4(a)(2) and the criteria for allowing "no monitoring" under Subpart C. In the latter example, the commenter stated that the rule would seem to require monitoring of an insignificant unit if monitoring was needed to assure compliance even if such monitoring was too expensive in light of the emissions at stake. The commenter also argued that the testing requirements fail to allow for a cost consideration in determining whether testing should be conducted (see detailed summary under section 8.2 (Part III)).

Response: The Agency agrees that site-specific considerations relative to the factors listed by the commenters can and should affect the design of monitoring. The final rule lists factors of history of process or control device operation, actual emission relative to the compliance limit, and the ability of the monitoring to detect changes in pollution control performance to be

considered in both the design of monitoring and in the review of the permit application. The final rule still includes the requirement that the source owner or operator design and propose the monitoring in the permit application and allows a good deal of flexibility to accomplish this. Further, the rule stipulates that any existing monitoring be evaluated in determining its applicability for complying with this rule. In this way, the rule makes clear that the lowest cost monitoring approach, applying the current monitoring, is considered and evaluated before other approaches.

Because the source owner has control over the design of proposed monitoring and the permitting authority must use the same performance evaluation criteria as used in designing monitoring, the Agency believes that cost consideration are inherently part of the design and evaluation and should not be a required factor in implementing the rule. Although EPA requested comment in 1994 on whether cost should be an explicit factor that could be relied upon to justify not achieving the part 64 monitoring criteria, EPA has instead chosen a lower cost approach to achieving the requirements of section 114(a). EPA decided against the approach described in the 1994 notice for several reasons. First, cost considerations were a major factor in modifying EPA's approach to enhanced monitoring from the 1993 proposal to the CAM approach. Because CAM generally involves significantly lower costs than the earlier proposal, cost concerns for individual units are also lowered. Second, the design of monitoring is not equipment-specific or tiered such that a top-down selection scheme is applied. Rather, as explained above, source owners can consider cost in designing the monitoring system. Third, specifying a cost evaluation criteria would require establishing a baseline cost for comparison purposes which would be difficult for the broadly applicable part 64 given the range of situations encountered. Finally, a related concern is that adding cost as an explicit design criteria may compromise national consistency under CAM. Many commenters criticized the proposed monitoring criteria as vague even absent the addition of a factor which would allow monitoring not to achieve the criteria in certain circumstances. The Agency has modified the criteria in response to such comments and also believes these comments have been somewhat overstated. Nonetheless, EPA recognizes that monitoring criteria that are intended to give source owners broad flexibility in designing monitoring must not be overly prescriptive and thus presents the potential problem of inconsistent application. Adding cost as a grounds for not achieving the monitoring criteria only exacerbates this

potential problem. Taking all of these factors into account, EPA decided against adding cost as an explicit factor that could be relied upon to justify not achieving the part 64 monitoring criteria.

Letter(s): American Automobile Manufacturers Association (VI-D-157); American Gas Association (VI-D-154); Chemical Manufacturers Association (VI-D-152); CITGO Petroleum Corporation (VI-D-172); Clean Air Implementation Project (VI-D-153); Coalition for Clean Air Implementation (VI-D-164); DuPont Engineering (VI-D-127); Electronic Industries Association (VI-D-137); General Electric Company (VI-D-156); Mobil Corporation (VI-D-115); Mobil Corporation (VI-D-248); National Environmental Development Association (VI-D-169 and 269); Ohio Chamber of Commerce, et al. (VI-D-160); Specialty Steel Industry of North America (VI-D-143); Steel Manufacturers Association (SMA) (VI-D-144)

Section 7: Subpart B CAM Plans

Section 7.1: General Comments

Comment a: A number of commenters noted general support for § 64.7. One state agency supported the flexibility of § 64.7, which lays out five elements of a CAM plan without excessively detailing the specifics, allowing unit-by-unit adjustments while mandating the resolution of heretofore ambiguous concepts, such as monitoring frequency and indicator ranges. This is an example of the leeway the CAM proposal gives authorities to work with sources to determine the most effective monitoring that will satisfy CAM, according to the commenter. Another commenter supported the draft preamble's statement that the § 64.7(a)(4) obligation to take corrective action to bring operations back within the appropriate ranges should be met as "expeditiously as practicable." This commenter did not support the option of establishing a "critical path requirement" which owners and operators would have to follow when taking corrective action. Another commenter noted that this is an improvement over the 1995 draft. A federal agency noted that the CAM plan requirements are neither technologically proscriptive nor onerous to develop or maintain. The commenter noted that sources have the option of proposing a number of different methods to verify that equipment is working properly; for example pressure drops and/or opacity information could be used to indicate whether a regulated pollutant was exceeding emission limitations or standards. CAM plans should also generally not require expensive equipment modifications, although they will probably require greater maintenance and tracking of records, according to this commenter. An industry commenter noted that the list of CAM plan elements in 64.7 is sensible and as detailed as necessary. The commenter suggested that the rest of subpart B should be made consistent with this simple approach and the extra requirements scattered throughout the rule should be dropped or moved into this section.

Response: The Agency agrees with the comment that reorganization and consolidation of requirements is appropriate. The final rule represents such a reorganization of requirements. The rule no longer refers to a "CAM plan" because there is no need to distinguish between monitoring for units with control devices and those units without control devices. However, the basic elements of the 1996 part 64 Draft have been incorporated into § 64.6(c) of the final rule.

Letter(s): Air Products and Chemicals, Inc. (VI-D-186); Department of Defense (VI-D-209); Exxon Chemical Americas (VI-D-128); State of Washington Dept. of Ecology (VI-D-167); Wellman, Inc. (VI-D-237)

Comment b: Some commenters suggested that the rule should not require a source to develop a separate CAM plan for each unit at the source. They argued that it is redundant to require a separate CAM plan for each unit at a source if the CAM plan will be the same for all units at a source. They suggested that sources should be given the flexibility to combine all CAM plans into one document that addresses all applicable units. For example, for a facility which uses water scrubbers, condensers and carbon absorbers to control its VOC emissions, a single CAM plan with three sections would be sufficient to address all the control devices at the facility, according to one commenter. Another commenter stated that the rule should only require one CAM plan per control device, even if multiple units are connected to that control device, while another suggested generally that it would be better to allow for the development of a single CAM plan for a facility. In addition, one commenter stated that EPA should consider allowing a company to develop a generic CAM plan that, if approved by EPA, could be used for facilities in different States.

Response: The exact wording contained in § 64.7 of the 1996 part 64 Draft is not included in the final rule. The Agency agrees that a monitoring approach that satisfies part 64 may be applied to any number of similar pollutant-specific emissions units at a particular source and that consolidation of such monitoring description in the permit application is appropriate. Nothing in part 64 prohibits such consolidation as long as the application adequately identifies the PSEU(s) for which the monitoring applies. Further, development of an industry-wide or company-wide monitoring approach for similar control technologies is certainly valid and encouraged for consistency purposes. Again, nothing in part 64 prohibits such generic monitoring development as long as each application properly documents and applies the monitoring.

Letter(s): Colorado Association of Commerce & Industry (VI-D-182); County Sanitation Districts of Orange County, California (VI-D-231); Department of Energy (VI-D-196); NESCAUM (VI-D-192); Pharmaceutical Research and Manufacturers of America (VI-D-217); South Dakota Dept. of Environment & Natural Resources (VI-D-223)

Comment c: One commenter stated that the CAM plan requirements for existing monitoring should not have to be equivalent to the elements prescribed in § 64.7, and cited as an example stack monitoring under part 61, subpart H. The commenter stated that compliance with the emission standards in subpart H is based on calculation of annual dose from the facility, even though the facility conducts monitoring at individual stacks. The commenter argued that it would be meaningless to apply "excursions" and "indicator ranges" to the individual stacks, especially given the constant change at research facilities.

Response: The monitoring requirements in subpart H, National Emission Standard for Radionuclides other than Radon from Department of Energy Facilities, is defined by the rule as a continuous compliance determination method. As such, the monitoring for these pollutant-specific emission units is exempt from part 64. No additional documentation is necessary.

Letter(s): Los Alamos National Laboratory (VI-D-210)

Section 7.2: Permit Interface

Comment a: Certain commenters proposed changes to § 64.7 to allow CAM plan adjustments without the need for permit modification. One commenter stated that CAM plan details and changes should be "off permit." The commenter proposed that, in § 64.7(a)(4), EPA should make the terms and conditions for all the CAM requirements an "obligation to develop" and require permitting authority approval since this approach would allow CAM plans to be adjusted without going through the permit modification process. Another commenter argued that the list of elements under § 64.7(a)(1)-(4) required to be in a CAM plan and become permit terms is too detailed. In particular, according to the commenter, subsections 64.7(a)(1)(iv) and (v) are too broad to be translated into simple permit terms (unless it is possible to cite pre-existing regulations), but also are the kind of requirements that are most likely to require fine-tuning. Thus, the commenter recommended that EPA delete these subsections and, to ensure that the performance criteria in CAM plans are being met and QA/QC being performed, require establishment of a permit term or condition that requires implementation of the performance criteria in an approved CAM plan. The commenter further recommended edits to the introductory language in 64.7 so that it is clear that only certain minimum

elements, not necessarily an entire CAM plan, must be included in the permit. The commenter stated that EPA must recognize that a CAM plan may include additional information that need not be part of the permit, and provided example text to clarify this provision.

Response: The Agency believes that the permit revisions process under development will provide sufficient flexibility for changing monitoring as necessary to accommodate the changing needs of the industry. The Agency also agrees that not every detail of the monitoring must be part of a permit. In the final rule the elements required for the permit have been reduced and described more clearly to avoid unnecessary information for the permit that may be difficult to change in the future. These are: (1) the approved monitoring approach including the indicator(s) to be monitored (such as temperature, pressure drop, emissions, or similar parameter), the means or device to be used to measure the indicator(s) (such as temperature measurement device, visual observation, or CEMS), and the performance requirements (such as monitoring frequency, averaging period, and general QA/QC); (2) the means by which the owner or operator will define an exceedance or excursion for purposes of responding to and reporting exceedances or excursions; for defining an excursion from an indicator range or designated condition, the permit may either include the specific value at which an excursion shall occur, or the specific procedures that will be used to establish that value; (3) the obligation to conduct the monitoring and fulfill the other obligations of part 64 (such as a general duty to operate the monitoring at all times and other requirements that the permitting authority deems necessary; and (4) if appropriate, a minimum data availability requirement for valid data collection for each averaging period, and, if appropriate, a minimum data availability requirement for the averaging periods in a reporting period. The Agency believes that these minimum elements can define the monitoring sufficiently for the permit and afford the source owner or operator the opportunity to maintain and update the details of day-to-day monitoring operation without permit revision. For instance, the minimum QA/QC procedures to include in the permit should not be confused with a set of standard operating procedures (SOP) or a detailed QA/QC plan. The permit should include the basic required QA/QC procedures (e.g., daily operational checks and annual calibration of a pressure drop gauge).

Letter(s): Chemical Manufacturers Association (VI-D-152); Utility Air Regulatory Group (VI-D-140)

Section 7.3: Ability to Add Elements

Comment a: Some commenters stated that the permitting authority should not have unfettered discretion to add other elements into a CAM Plan. They argued that this provision is a standardless and unlawful delegation of authority to local agencies. Some of these commenters recommended explicitly deleting § 64.7(a)(5).

Response: The Agency disagrees that the permitting authority should not have discretion in determining what monitoring, in addition to part 64 monitoring, would be appropriate for a pollutant-specific emission unit. On the other hand, the Agency agrees that the process for reviewing and approving monitoring that satisfies part 64 is required to focus only on part 64 related requirements. The revised approval process in part 64 reflects this approach, and the final rule does not include a provision that parallels § 64.7(a)(5) of the 1996 part 64 draft.

Letter(s): American Automobile Manufacturers Association (VI-D-157); Coalition for Clean Air Implementation (VI-D-164); Eastman Chemical Company (VI-D-173); KBN Engineering & Applied Sciences, Inc. (VI-D-229); Phillips Petroleum Company (VI-D-131)

Section 7.4: Corrective Action Provisions

Comment a: An environmental organization argued that the corrective action provisions are inadequate. The group stated that the corrective action obligation applies only to subpart B sources that have a duty to monitor control device parameters, and the rule does not specify what must be done in a corrective action or how soon the problems that necessitated it must be corrected. Industry commenters, however, suggested that corrective action should not be required for all excursions/exceedances. They argued that one reason corrective action should not be required for all excursions/exceedances is because the event could be corrected prior to the operator taking any action. For instance, the commenter stated that computerized distributed control systems can correct process deviations

without action on part of the operator. Some commenters argued that it is a waste of resources for operators to take corrective action when the event has already been corrected. One commenter suggested that the rule should only require corrective action if the problem persists for a significant period. Another commenter noted that excursions may be the result of an anomaly in production and may not require corrective action, and stated that corrective action should only be required if the source determines that an exceedance of an applicable requirement has occurred. Another commenter argued that the requirement to take corrective action should only apply where an excursion or exceedance has been validated because of the possibility of false indications of excursions or exceedances. Similarly, one commenter suggested that the rule should allow for qualitative checks to determine if monitored "excursions" are in fact control performance changes that should be corrected. The commenter stated that this type of double-checking could avoid misguided attempts to adjust control equipment that is in fact operating properly. The commenter argued that if the qualitative check indicates that the excursion was a "false alarm" the excursion should not count as an actual excursion, and if the monitoring produces too many false alarms, then the CAM plan should be revised. In addition, the commenter requested that a CAM plan explicitly detail the procedures to be used as qualitative checks. Another commenter agreed and recommended that the word "validated" be added so that it is clear that corrective action is not required where the data inaccurately indicates an excursion.

Response: The Agency believes it is critical to underscore the need to maintain operation within the established indicator ranges. Therefore, the rule includes the requirement to take prompt and effective corrective action when the monitored indicators of compliance show that there may be a problem. Requiring that owners and operators are attentive and respond to the data gathered by part 64 monitoring has always been central to the CAM approach. The Agency reiterates its belief that part 64 monitoring can provide a reasonable assurance of compliance with applicable requirements. This is consistent with the approach suggested by many commenters throughout the development of part 64; however, because the data will not necessarily allow a direct determination of compliance, the Agency believes that it is essential to the CAM goal of ongoing compliance operation that part 64 require that owners or operators respond to the data so that any problems indicated by the monitoring are

corrected as soon as possible. Without this corrective action obligation, source owners or operators might tend to ignore excursions because such excursions may not necessarily allow a determination of a violation. Thus, EPA believes that the corrective action component of part 64 is critical to assuring that the information from the enhanced monitoring required by part 64 is heeded by source owners and operators. On the other hand, the Agency agrees that not every indicated excursion is necessarily a result of a control device problem. The final rule specifies in § 64.7(d) that "corrective action" can include documenting that the parameters monitored returned to the normal ranges without operator action. In addition, the responsible official has the opportunity to describe and explain the circumstances behind any indicated excursions in the semi-annual report or the annual compliance certification and document that such instances reflect conditions unrelated to compliance operation.

The EPA disagrees with the comment that the rule does not specify what must be accomplished in a corrective action. The rule specifies that "[u]pon detecting an excursion or exceedance, the owner or operator shall restore operation of the pollutant-specific emission unit (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions." (40 CFR §64.7(d)) Given the wide range of units and control devices that the rule applies to it would be difficult to include more specific requirements in the rule.

As described in the discussion accompanying the 1996 part 64 Draft, the Agency did consider requiring owners or operators to specify maximum periods for conducting various types of corrective action, but stakeholders raised concerns that it would be extremely difficult to establish the appropriate time frames for every possible contingency. The Agency continues to agree that it would be difficult to establish appropriate time frames for all corrective action scenarios and therefore has adopted the general obligation requirement in the final rule. The Agency also believes, however, that as situations develop at a particular facility it may be possible in subsequent rounds of permitting to provide specific timetables for certain high priority concerns if a permitting authority desires to make this requirement more specific. In addition, if an existing site-specific plan, such as a malfunction abatement plan, already establishes required time frames for certain types of excursions, the

owner or operator or the permitting authority could incorporate those specific time frames into the permit.

The obligation to correct excursions as expeditiously as practicable is the enforceable component associated with establishing an indicator range under part 64. Part 64 does not establish that an excursion from an indicator range constitutes an independent violation by itself. The 1996 part 64 Draft did provide that the permit may specify that an excursion could be considered a failure to satisfy an applicable permit term or condition in various situations. First, if existing requirements already require the owner or operator to comply with the indicator ranges, the 1996 Draft indicated that the ranges would be enforceable requirements. Second, the 1996 Draft indicated that an owner or operator could propose this approach. Finally, the 1996 Draft stated that, if consistent with existing authority, the permitting authority could specify in the permit that excursions from the indicator ranges will be considered enforceable permit deviations. The Agency believes that the corrective obligation in conjunction with enforcement agency oversight is an effective and enforceable element in a compliance assurance program.

Letter(s): Air Control Techniques, P.C. (VI-D-202); American Automobile Manufacturers Association (VI-D-157); Association of Battery Recyclers (VI-D-155); General Electric Company (VI-D-156); Natural Resources Defense Council (VI-D-151); Phillips Petroleum Company (VI-D-131); Texas Chemical Council (VI-D-236); UCAR Carbon Company, Inc. (VI-D-122)

Section 7.5: Miscellaneous Comments

Comment a: One commenter proposed changes to § 64.7 which would require that CAM plans include information on the relationship between parameters to be monitored and compliance with emission limits or standards. (See related comments in Section 6.1-subpart B General Criteria.) The commenter proposed revisions to § 64.7(a)(1) to add a requirement that the CAM plan contain a "credible demonstration of the validity of the indicator to be monitored" including the demonstrated relationship between the indicator and actual emissions, the demonstrated margin of compliance, and the potential variability of emissions.

Response: The Agency believes that there is a reasonable assurance of compliance with emission limits so long as the emissions unit is operated under the conditions anticipated and the control equipment that has been proven capable of complying continues to be operated and maintained properly. This is the basis for the monitoring approach described in part 64. In most cases, this relationship can be shown to exist through the performance testing without additional site-specific correlation of operational indicators with actual emission values. The Agency agrees with the commenter that the evaluation criteria mentioned by the commenter are important in developing and approving monitoring in a manner that both allows flexibility in design and provides a reasonable assurance of compliance. The rule specifically allows for the use and augmenting of existing monitoring in lieu of developing and installing completely new monitoring approaches and § 64.3(c) references the evaluation factors to apply in developing and reviewing monitoring to meet part 64 requirements. The Agency believes that in this manner, the owner or operator and the permitting authority can agree on cost-effective monitoring that result in the reasonable assurance of compliance required by part 64.

Letter(s): NESCAUM (VI-D-192)

Comment b: Another commenter recommended that the rule should provide for situations where it will not be possible to determine indicator ranges until equipment is operational. The commenter suggested that the rule permit a source to include a time period within which indicator ranges will be determined after the CAM plan is approved.

Response: The Agency agrees and has included in the rule that if the monitoring submitted by the owner or operator requires installation, testing, or other necessary activities prior to use of the monitoring, the owner or operator shall include an implementation plan and schedule for installing, testing and performing any other appropriate activities prior to use of the monitoring. The implementation plan and schedule shall provide for use of the monitoring as expeditiously as practicable after approval of the monitoring in the part 70 or 71 permit, but in no case shall the schedule for completing installation and beginning operation of the monitoring exceed 180 days after approval of the permit.

Letter(s): Exxon Chemical Americas (VI-D-128)

Comment c: One commenter recommended moving § 64.7(a)(4) to apply to subparts A and B because this paragraph is actually a permit requirement and not a CAM plan element.

Response: The final rule has been reorganized significantly to improve the flow of the rule and avoid these types of possible conflicts. The reorganization effectively addresses this comment.

Letter(s): Exxon Chemical Americas (VI-D-128)

Section 8: Documentation Requirements

Section 8.1: Rationale for Monitoring

Comment a: An environmental organization objected that the rule fails to require owners to provide meaningful support for their monitoring proposals because section 64.8 merely lists possible elements that owners may include without setting any standard for documentation that owners must include. Additionally, this organization asserted that, because the documentation section provided that testing is not required over the entire indicator range, the indicator ranges will in effect sanction operation when it is unknown as to whether compliance is being achieved. Industry commenters, on the other hand, objected that the requirement to submit a rationale should be deleted because it is overly prescriptive, burdensome and will generally be superfluous. One commenter argued that this should be worked out by the permitting authority and the source. Similarly, others noted that the CAM plan documentation requirements are overly burdensome, especially given the large number of units subject to subpart B. One commenter suggested that the rule should only require documentation of the rationale behind the monitoring approach where proposed monitoring differs from generally accepted approaches, that such documentation should be minimal, and that no justification should be necessary where indicator ranges are set below applicable emission limitations or standards. Others suggested that written justification for the monitoring should be required only at the request of the permitting authority because this requirement will be a waste of resources in many situations where the proposed monitoring does not need justification. If questions arise during the permit process, additional supporting documentation can be provided.

Response: The Agency disagrees with the suggestion that documentation of monitoring is unnecessary. This information will be necessary for the permitting authority, the public, and EPA to judge the appropriateness of the proposed monitoring for satisfying the design criteria in the rule. In addition, this requirement builds on similar regulatory precedents in the NSPS and NESHAP programs. Under those programs, EPA has routinely required the owner or operator to submit a proposed monitoring approach and supporting rationale where the owner or operator intends to use a control device for which the underlying standard does not contain specific monitoring procedures.

As discussed in greater detail in Section II.C.1 of the preamble to the final rule, the Agency also disagrees that the documentation requirements are insufficient to assure that monitoring have meaningful support in terms of demonstrating a reasonable assurance of compliance. The final rule requires that an owner or operator propose indicator ranges supported by data obtained during the conduct of the applicable compliance or performance testing at the pollutant-specific emissions unit and supplemented, as necessary, by engineering assessments and manufacturer's recommendations. To assure that conditions that occur during performance testing are also generally representative of anticipated operating conditions, a performance test is to be conducted under conditions specified by the applicable rule or, if not specified, generally under conditions representative of maximum emission potential under anticipated operating conditions. In addition, the rule allows for adjusting the baseline values recorded during a performance test to account for the inappropriateness of requiring that indicator conditions stay exactly the same as during a test. The rule does not require performance testing over the entire indicator range; however, that does not mean that the entire indicator range does not need to be adequately justified as providing a reasonable assurance of compliance. The range of indicator levels can be justified not only by performance data but by engineering and historical data as well as manufacturer's specifications.

Letter(s): American Automobile Manufacturers Association (VI-D-157); Association of Battery Recyclers (VI-D-155); Eli Lilly Company (VI-D-124); General Electric Company (VI-D-156); Phillips Petroleum Company (VI-D-131)

Comment b: Some industry commenters noted support for the provision allowing sources to base CAM plans on monitoring approaches that a permitting authority has established as presumptively acceptable. A coalition group stated that this provision fosters development of state programmatic approaches which could be a very useful tool for states with a large number of CAM plans to administer. It also fulfills the provision of section 114 that states be authorized to develop procedures for carrying out its requirements. Others noted that this provision would reduce plan development and case-by-case review costs in states where programmatic approaches are not developed. One commenter stated, however, that the rule must allow time for states to adopt/revise rules. Finally, another commenter stated specific support for the ability to use

MACT monitoring as presumptively acceptable for CAM where it applies to control of non-HAPs.

Response: The Agency agrees that the monitoring prescribed by state or local rules be considered acceptable, if that monitoring meets part 64 requirements. The final rule includes a provision that allows the owner or operator to rely presumptively upon this type of programmatic rule requirement as the primary documentation of the appropriateness of its monitoring. This approach would reduce the number of case-by-case reviews necessary to implement part 64. On the other hand, EPA does not agree with commenters who suggest that states that choose to use programmatic rulemaking should be allowed to apply different criteria in determining monitoring and to have additional time to implement such an approach. The EPA believes monitoring decisions should be made on the same basis whether done on a programmatic or case-by-case basis. Second, EPA questions both the need for a substantial delay for programmatic rulemaking and whether the purported advantages of a programmatic approach justify any substantial delay. The final part 64 does not include an option for permitting authorities to delay implementation of part 64 through use of a programmatic approach. Lastly, determination of whether monitoring specified for a MACT rule or any other rule is applicable for monitoring the control of other pollutants to satisfy part 64 must be made on a case-by-case basis. In many cases, the Agency would expect such monitoring as specified in a MACT rule of a control device that is designed to remove both a MACT pollutant and other non-HAPs may very well satisfy part 64 requirements.

Letter(s): Association of Battery Recyclers (VI-D-155); Clean Air Implementation Project (VI-D-153); DuPont Engineering (VI-D-127); Phillips Petroleum Company (VI-D-131); Texas Chemical Council (VI-D-236)

Section 8.2: Indicator Range Verification

8.2.1: Presumption that Testing is Required

Comment a: One industry commenter supported the concept that parameter limits do not always have to be based on performance tests. The commenter agreed with the statement in the discussion document that performance tests are not always essential in order to establish parameter limits.

According to the commenter, existing regulations specify various methods of demonstrating compliance including design evaluations and other approaches and the rule should allow similar flexibility. Another industry group stated generally that the provisions in § 64.8(c) are important so that testing is not required, especially given the broad applicability criteria.

Most industry commenters on this section, however, objected to the presumption that indicator ranges are to be established based on compliance testing. Commenters objected to requiring indicator ranges to be developed in conjunction with applicable test methods and to be set at levels that will ensure emissions are below numerical limits at all times. Some commenters argued that this increases the stringency of underlying standards which were developed with limited data and with an expectation that properly operated sources would be likely to exceed the limits 5-10 percent of the time. The commenters believed that this approach basically requires a statistical correlation of parameter values with emission values, makes CAM diverge from its focus on good O&M, and turns indicator monitoring into de facto continuous compliance monitoring as in the EM proposal. EPA should act to completely sever the connection in CAM between actual emissions and indicator parameters, according to some commenters. Two commenters suggested that the rule require only that available compliance data be considered or evaluated when developing the plan. Another commenter suggested that the permitting authority could also be required to make a determination of whether compliance testing is cost-effective or if an engineering assessment in combination with the monitoring is sufficient to assure compliance. Finally, one commenter claimed generally that use of snapshot testing to set indicator ranges will result in increased stringency, especially where there is a large margin of compliance during the test.

An industry coalition group also argued that the cost of compliance testing could easily reach a billion dollars just to do the single performance test indicated in the draft rule (assuming 100,000 emission points). In addition, this commenter stated that sources will want to conduct more tests just to avoid the increased stringency impacts and enforcement actions based on overly restrictive indicator ranges. The commenter stated that the rule provides no limits on the costs of testing and verification.

Another commenter argued that compliance testing is not necessary since most sources have already been determined to be capable of achieving applicable requirements as a result of rule or permit compliance demonstration requirements. The commenter added that it is particularly unreasonable to require testing at smaller sources. Similarly, commenters stated that engineering assessments and manufacturer recommendations are generally adequate to establish indicators that demonstrate that a control device is operating as designed. They also argued that using data collected during a test does not add value to this process and CAM should not be used as a vehicle for implementing compliance testing on sources. Commenters also noted that not all CAM "control devices" have required performance tests, and some which do have tests do not have approved methods. Other sources of information can be just as useful or superior for setting indicator ranges, according to these commenters. For example, the commenters stated that testing is generally unnecessary to determine the appropriate temperature for operating a condenser to achieve a given level of control. The commenters recommended that the provision be rewritten to promote the use of engineering assessments and other information. Finally, a commenter argued that there are many situations where unit specific compliance testing is not currently required. It is not necessary or appropriate for CAM to override reasoned decisions made in underlying rules, according to this commenter; for example, controls used for fugitive emissions do not require performance tests because their high cost is not justified for the small amount of emissions handled. The commenter noted that CAM's pre-control applicability threshold will subject all fugitive sources to subpart B, and added that CAM plans will also be required for work practice and other requirements where the term "performance test" does not apply.

One industry trade group recommended that EPA replace this section with a much simpler provision stating that the appropriate parameter monitoring range(s) may be determined by representative test data from any applicable source, plus supporting information, such as engineering assessments, manufacturer's data and recommendations, subject to the permitting authority's approval.

Commenters also suggested that where compliance test data is used to establish indicator ranges, the rule should make clear that this does not imply a specific correlation between the test data and the range selected.

The commenters stated that a single test is not necessarily representative of the entire range of operating conditions at a source, and that indicator ranges should be determined based on historical operating data, engineering data, etc. One commenter claimed that it was not possible to establish a correlation or quantitative relationship between emissions and an indicator value based on a single performance test. The commenter argued that when multiple parameters were involved the ability of setting meaningful indicator values based on a single performance test became even less likely. Additionally, this commenter claimed that because performance tests themselves allegedly could be highly variable parameter values established based on a single performance test are invalid. Finally, this commenter asserted that EPA had not provided sufficient guidance on how to take information other than performance data into account in setting indicator ranges.

One commenter claimed that it was not possible to establish a correlation or quantitative relationship between emissions and an indicator value based on a single performance test. The commenter argued that when multiple parameters were involved the ability of setting meaningful indicator values based on a single performance test became even less likely. Additionally, this commenter claimed that because performance tests themselves allegedly could be highly variable parameter values established based on a single performance test are invalid. Finally, this commenter asserted that EPA had not provided sufficient guidance on how to take information other than performance data into account in setting indicator ranges.

Certain pharmaceutical industry commenters also objected to the requirement that an owner or operator must obtain approval to use engineering assessments and other data for the establishment of indicator ranges. The commenters stated that the pharmaceutical industry is an industry that primarily uses batch manufacturing operations which are inherently nonsteady-state with flow rates and compositions rapidly changing. The commenters argued that because most existing test methods are adaptations of methods developed for steady-state sources, requiring performance testing for batch industries will place an unfair burden on those industries because reliable batch testing technology has not yet been developed. The commenters added that for many years, the pharmaceutical industry has calculated controlled emissions using the Control Technology Guidelines developed by EPA,

which are recognized as approved factors by state and federal permitting authorities. Requiring prior approval for techniques already approved by EPA and the state agencies is unnecessary and time-consuming, according to these commenters, and they recommended revisions to § 64.8(c) to eliminate the requirement to obtain such approval.

Response: The Agency believes that performance testing plays an important role in two ways in establishing indicator ranges that will provide a reasonable assurance of ongoing compliance for pollutant-specific emissions units with pollution control devices. First, the performance or compliance test is generally necessary to demonstrate that the emission unit is capable of compliance with the emission limitation or standard. Many applicable regulations require such a test at least at unit start-up; if not, the permitting authority often prescribes an appropriate test or other means to make this demonstration. Second, the Agency believes the use of operational data collected during performance testing is a key element in establishing indicator ranges. The Agency has long recognized the importance of establishing representative site-specific baseline conditions during performance testing. For instance, nearly all NSPS subparts that rely on parameter monitoring require indicator ranges to be set based on baseline conditions during performance testing. In addition, relevant portions of EPA's Air Compliance Inspection Manual (docket item A-91-52-VI-A-3) notes the importance of this approach so that parameter data can be relied on in the inspection process to reach a conclusion about a source's compliance status. Thus, the presumptive approach for establishing indicator ranges in part 64 is to establish the ranges in the context of performance testing.

The Agency recognizes that information collected during performance do not necessarily provide all the information needed to develop indicator ranges that are representative of compliance performance across the entire operating range. For this reason, the rule allows for adjusting the baseline values recorded during a performance test to account for the inappropriateness of requiring that indicator conditions stay exactly the same as during a test. Other relevant information that may be used in establishing indicator ranges would be engineering assessments, historical data, and vendor data. The rule also provides that the owner may submit indicator ranges (or procedures for establishing indicator ranges) that rely alone on engineering assessments and other data, provided that the owner or operator demonstrates that factors specific to

the type of monitoring, control device, or pollutant-specific emissions unit make compliance or performance testing unnecessary.

The Agency believes that the comment suggesting that meaningful indicator values could not be established based on a performance test incorrectly assumed that EPA was requiring that indicator values be statistically correlated to emission levels as in the 1993 enhanced monitoring proposal. As noted above, EPA believes that performance data used in connection with engineering, vendor, and historical information can be used to set indicator values that provide a reasonable assurance of compliance. Thus, EPA is not requiring a statistical correlation between indicator values and emission levels such as in the 1993 proposal. As to the concern regarding the variability of performance tests, EPA believes that performance variability is a potential problem with individual standards and performance tests but is not a bar to parameter monitoring. If the performance test is highly variable, mistaken judgments regarding compliance will occur whether relying on the performance test itself or parameter values based on the performance test. Finally, EPA has not set forth a host of detailed regulatory requirements regarding the use of non-performance data in setting indicator levels so as to allow source owners and operators and permitting authorities the flexibility to adapt monitoring and indicator levels to the specific circumstances at the unit in question. This rule applies to too many different types of units and different types of control devices to allow for such a prescriptive approach. EPA intends to issue guidance on parameter monitoring to aid source owners and operators in the design of CAM plans.

Lastly, the issue of revising the stringency through establishing indicator ranges based on performance testing is not relevant given that the Agency has made clear that an excursion from an indicator range or designated condition indicates a potential problem in the operation and maintenance of the control device and a possible exception to compliance with applicable requirements. The excursion signals, at a minimum, that the owner or operator should take appropriate corrective action to return operations within the established ranges. However, an excursion from an indicator range does not necessarily constitute a failure to comply with the underlying emissions limitation or standard. See section 14 of this document for additional discussion. The assertion that requiring monitoring to ensure that emission standards are met at all times makes the standards more stringent because many standards do not require

continuous compliance is incorrect. Part 64 is a monitoring rule; it does not -- in fact, could not -- change the compliance obligations of individual emission standards. EPA would note its disagreement with the theory that continuous compliance is not the norm for emission standards. This issue was discussed in great detail in the preamble to the Credible Evidence Rulemaking and the Response to Comments document associated with that rule.

EPA disagrees with the comment that it should sever the link between CAM and actual emissions. CAM is designed to provide source owners and operators with information for compliance certifications. If CAM had no linkage to actual emissions it would have no value for compliance certifications.

Letter(s): American Automobile Manufacturers Association (VI-D-157); Association of Battery Recyclers (VI-D-155); Chemical Manufacturers Association (VI-D-152); Clean Air Implementation Project (VI-D-153); Coalition for Clean Air Implementation (VI-D-164); Dow Chemical Company (VI-D-120); DuPont Engineering (VI-D-127); Eastman Chemical Company (VI-D-173); Eli Lilly (VI-D-124); Exxon Chemical Americas (VI-D-128); General Electric Company (VI-D-156); Kennecott Corporation (VI-D-119); National Environmental Development Association (VI-D-169); Ohio Chamber of Commerce, et al (VI-D-160); Pennsylvania Chamber of Business and Industry (VI-D-114); Pharmaceutical Research and Manufacturers of America (VI-D-217); Phillips Petroleum Company (VI-D-131); Texas Chemical Council (VI-D-236); Utility Air Regulatory Group (VI-D-140); Virginia Power (VI-D-226); Wisconsin Electric Power Company (VI-D-130)

8.2.2: Testing over Entire Operating Range

Comment a: Industry commenters did support the provision stating that test data need not reflect the entire indicator range. One trade association urged EPA to retain the provision in the final version of this section. Another commenter noted that testing at nonrepresentative conditions can provide misleading results, and thus this same provision should be added to § 64.8(c) where existing test data are not available. An environmental organization, on the other hand, argued that the rule improperly sanctions the operation of sources under conditions for which the owners do not know the emission levels. Noting that the rule states that parameter

ranges should be based on compliance tests but provides that testing is not required to be conducted over the entire indicator range, the commenter stated that the rule improperly allows sources to conduct the compliance testing at an unspecified date in the future or to rely on other data.

Response: The Agency agrees that the conditions under which the performance testing is conducted are critical to assuring that the testing or the resulting indicator ranges are representative of compliance performance. To assure that conditions represented by performance testing are generally representative of anticipated operating conditions, the final rule prescribes that a performance test should be conducted under conditions specified by the applicable rule or, if not specified, generally under conditions representative of maximum emission potential under anticipated operating conditions. The Agency believes that use of data from performance tests under such conditions in conjunction with other engineering data provide a basis for establishing indicator ranges and that full-scale performance testing across the indicator range is unnecessary. The Agency notes that it has used this same approach in many recent MACT rules under 40 CFR part 63 as well (see, e.g., 40 CFR 63.654(f)(3)(ii)(A) and 63.1334(c)).

Letter(s): Chemical Manufacturers Association (VI-D-152); Eastman Chemical Company (VI-D-173); Natural Resources Defense Council (VI-D-151)

8.2.3: Use of Existing Test Data

Comment a: Several industry commenters recommended that EPA delete the provisions of § 64.8(b)(2) relating to age of test data and other restrictions. The commenters argued that there is no technical justification for arbitrarily excluding from consideration data over five years old. They stated that test data obtained using approved methods should remain valid no matter when the test was conducted, so long as significant operational changes have not been made to the control device or associated system since the test was conducted. One commenter noted that this requirement could be misinterpreted by a permitting authority to require a performance test every five years to revalidate the results. Another commenter added that taking the time to do an

unnecessary performance test and review the results only delays the start of monitoring.

A state agency also agreed that the use of old test data should be evaluated on a case-by-case basis. The commenter stated that age of a source emissions test should not be the sole criteria for using the data from that test; other factors, such as the operational parameters and use of control equipment during the test, should be considered.

Response: The Agency agrees that the relevance of existing performance testing results, regardless of age, should be made on a case-by-case basis and has removed that provision from the final rule.

Letter(s): American Automobile Manufacturers Association (VI-D-157); Chemical Manufacturers Association (VI-D-152); Exxon Chemical Americas (VI-D-128); General Electric Company (VI-D-156); National Environmental Development Association (VI-D-169); PPG Industries, Inc. (VI-D-136); RR Donnelley & Sons Company (VI-D-221); State of Tennessee Department of Environment and Conservation (VI-D-234); Texas Chemical Council (VI-D-236); UCAR Carbon Company, Inc. (VI-D-122)

Comment b: One commenter stated that the requirement of additional testing of a control device any time it has been modified is not justifiable across the board. The commenter suggested that retesting should only be required where the modification can be expected to have affected the validity of the test data.

Response: The Agency agrees that the need for performance testing for process or control device modifications must be made in the context of the applicable requirement on a case-by-case basis. The final rule does not allow a source to rely on existing test data if modifications have been made since the testing was conducted that could result in a significant change in control system performance or the appropriate indicator range. This limitation on the use of existing data allows for the particular circumstances of the change to be taken into account.

Letter(s): Chemical Manufacturers Association (VI-D-152)

Comment c: A commenter noted that the section does not specifically provide for the use of test data on one unit to represent the performance of a similar process unit. The commenter suggested that permitting authorities should have discretion to accept data from one unit with supplemental information to take into account design and operating variations. According to the commenter such an approach is consistent with Section II.A.2 of White Paper 2, which recommends the use of General Permits to transfer streamlined requirements from one source to other similar sources. Another commenter stated that the cost burdens of the rule would be reduced by allowing any accurate, representative data to be used, and that the use of data from one unit to support monitoring decisions at similar units would result in considerable savings to industry with no deterioration to the environment.

Response: As noted above, the rule provides that the owner may submit indicator ranges (or procedures for establishing indicator ranges) that rely alone on engineering assessments and other data, including performance testing data from similar emission units, provided that the owner or operator demonstrates that factors specific to the type of monitoring, control device, or pollutant-specific emissions unit make compliance or performance testing unnecessary.

Letter(s): Chemical Manufacturers Association (VI-D-152); Union Carbide Corporation (VI-D-170)

8.2.4: Miscellaneous Comments

Comment a: A state agency association recommended that the rule should provide for the use of more than one compliance test method procedure. The commenter suggested modifying section 64.8(b)(1) to clarify that indicator ranges may be based on data obtained from the conduct of more than one compliance test method procedure where appropriate or necessary.

Response: The final rule specifies that performance testing should be conducted under conditions specified by the applicable rule including the method used. An alternative to the method specified in the applicable rule may be approved following the applicable administrative procedures, but that is outside the scope of part 64.

Letter(s): NESCAUM (VI-D-192)

Comment b: A state agency association requested clarification of whether verification testing is required only for initial baseline calculations or more frequently, such as once every permit renewal. The commenter supported an explicit statement in the rule that verification testing frequency is left to the discretion of the permitting authority. Other commenters requested similar clarification. They noted that the requirement that test data be no more than five years old could be interpreted to require testing every five years. They recommended that this provision be modified so that it applies only to the initial CAM plan submittal, not renewal of previously approved CAM. Another commenter stated generally that the rule provides no clear guidance on when and how much testing must occur, and that this is a particular concern for small sources.

Response: As noted above, the age of information collected during performance testing or the frequency of repeating performance testing should be made on a case-by-case basis. The final rule does not specify testing frequency.

Letter(s): American Municipal Power-Ohio (VI-D-159); Eastman Chemical Company (VI-D-173); NESCAUM (VI-D-192)

Comment c: One commenter requested that EPA make it explicit that a source can extrapolate baseline emission test data or other data up to a level that is a reasonable approximation of the emission limit. The commenter noted that because it would be inappropriate to create artificial test conditions at or near the emission limit for purposes of establishing an indicator range, sources with low emission test results must be able to extrapolate upward. The commenter recommended that the extrapolation should take into account the confidence interval of the data over the range of interest.

Response: The Agency agrees that creating artificial conditions that produce emissions at or near the applicable emission limitation or standard (that may be more representative of control device malfunctions than proper operation) is not consistent with the requirement of part 64 that the indicator ranges reflect the proper operation and maintenance of the control device (and associated capture system), in accordance with

applicable design properties, for minimizing emissions over the anticipated range of operating conditions at least to the level required to achieve compliance with the applicable requirements. The final part 64 requires that performance testing be conducted under conditions specified by the applicable rule. If the applicable rule does not specify testing conditions or only partially specifies test conditions, the performance test generally shall be conducted under conditions representative of maximum emissions potential under anticipated operating conditions at the pollutant-specific emissions unit. As noted above, the final rule allows for adjusting the baseline values recorded during a performance test to account for the inappropriateness of requiring that indicator conditions stay exactly the same as during a test. There is no need for, nor is it desirable that, the process or control device be operated outside of the anticipated operating range during the performance testing.

Letter(s): Air Control Techniques, P.C. (VI-D-202)

Section 9: Subpart C Requirements

Section 9.1: General Comments

Comment a: A few commenters expressed support for EPA's approach in draft subpart C, which they believed provides permitting authorities the flexibility to determine what level of monitoring, if any, to require. One noted that this level of decision making is best made on a case-by-case basis with permitting authorities that are familiar with the processes and equipment. Another supported the listed examples of various types of monitoring and the idea that no monitoring may be appropriate.

Response: No response necessary.

Letter(s): Air Products and Chemicals, Inc. (VI-D-186); California Association of Sanitation Agencies (VI-D-206); County Sanitation Districts of Orange County, California (VI-D-231); Tri-TAC (VI-D-225)

Comment b: Other commenters stated that EPA should clarify the standards for subpart C monitoring. Some argued that the standards for subpart B and C monitoring are similar and vague. They argued that the draft rule repeats the general standard of "reasonable assurance of compliance" for both subparts and, in section 64.9(a)(3), essentially refers back to subpart B, potentially subjecting subpart C units to all the requirements of subpart B. This eliminates any advantages of differentiating between these two categories, according to the commenters, and they stressed that subpart B requirements should not be imposed on subpart C pollutant-specific emission units. Some commenters proposed revisions to section 64.9(a) to clarify that not all of the listed monitoring elements should be included in an operating permit's subpart C monitoring description, arguing that those listed in section 64.7(a)(1)(i)-(v) should only be required "where appropriate" or "as applicable". Others proposed eliminating section 64.9(a)(3) because it is not clear how subpart B requirements, such as the requirement to set indicator ranges, would apply to units without control devices.

One commenter agreed that subpart C monitoring should be governed by the same reasonable assurance of compliance standard as subpart B and

that reference to subpart B concepts is a reasonable way to articulate what subpart C monitoring needs to consider. However, this commenter argued that given that the applicability of subpart C is even more broad than the EM proposal, the CAM rule will impose crushing burdens and will not be implementable unless subpart C monitoring is significantly less demanding than subpart B monitoring.

This commenter and others argued that the draft part 64 includes no standards that limit subpart C requirements, and that EPA has not articulated any standard for imposing the more onerous requirements. One commenter argued that the rule should provide a mechanism for resolving disputes between a source and the permitting authority as to what monitoring is appropriate. Another suggested that the rule appears to encourage permitting authorities to subject subpart C sources to subpart B requirements. A few commenters argued that subpart C as drafted is an unlawful delegation of authority to the states to create federally enforceable monitoring requirements, especially since states could impose requirements even more stringent than subpart B monitoring under subpart C. They stated that while states can always impose more stringent state requirements, those are state-only, not federal, requirements.

A State agency stated that the draft rule provides no guidance on what is meant by the phrase "reasonable assurance of compliance" in the context of subpart C monitoring and section 64.9(a). This commenter suggested adding a definition in either section 64.9(a)(2) or section 64.1 which states that assurance of compliance is reasonable if it is sufficient to detect, at least a majority of the time, failures or improper unit operations which could reasonably cause a violation.

Another commenter argued that many of the provisions of CAM are ill-defined and subject to multiple interpretations and that one possible interpretation of section 64.9(c)(3) would subject many units to EPA's proposed EM requirements.

Response: Because of the delays in finalizing part 64 and the delayed implementation schedule included in the final rule, the Agency believes that many part 70 permits will address periodic monitoring issues prior to implementation of part 64. To address concerns about the potential duplication and disruption that this situation could cause, EPA has

rejected the inclusion of subpart C in part 64 and, instead will rely on the existing part 70 monitoring, including periodic monitoring, requirements to apply to units not covered by part 64. Because the majority of emissions units do not use control devices, this decision will result in part 64 creating no duplication or disruption for the majority of emissions units. The Agency has issued several guidance documents to address periodic monitoring, including White Paper 2, and is finalizing more specific guidance for permitting authorities and source owners to use in addressing part 70 periodic monitoring requirements for the current implementation of the operating permits program. These guidance materials coincide with the scope and basic thrust of the text of the 1996 part 64 Draft subpart C section with additional clarification for the issues raised by commenters.

Letter(s): American Gas Association (VI-D-154); American Municipal Power-Ohio (VI-D-159); American Petroleum Institute (VI-D-146); Chemical Manufacturers Association (VI-D-152); Cinergy Corp. (VI-D-141); Coastal Corporation (VI-D-123); Colorado Association of Commerce and Industry (VI-D-182); Electronic Industries Association (VI-D-137); General Electric Company (VI-D-156); Georgia Department of Natural Resources (VI-D-193); Independent Liquid Terminals Association (VI-D-178); KBN Engineering and Applied Sciences, Inc. (IV-D-229); LaClede Gas Company (VI-D-198); Los Alamos National Laboratory (VI-D-210); NESCAUM (VI-D-192); Ohio Chamber of Commerce, et al (VI-D-160); Pharmaceutical Research and Manufacturers of America (IV-D-217); UCAR Carbon Company, Inc. (VI-D-122); Utility Air Regulatory Group (VI-D-140)

Comment c: Some commenters recommended that EPA should clearly state that record keeping or existing monitoring are adequate to satisfy subpart C requirements. One commenter noted that at the September 10, 1996 CAM public meeting, EPA's presentation indicated that the Agency intended for subpart C requirements to be record keeping requirements. The commenter noted that the proposed rule, however, did not include a clear statement that subpart C would require only record keeping. Some commenters recommended stating clearly that record keeping should satisfy subpart C requirements, because determining the appropriate level of record keeping is less burdensome than the thorough review generally needed for subpart B. Commenters also recommended clarifying that

subpart B units can use record keeping as appropriate. Another commenter recommended that section 64.9(c)(1) be revised so that the listed approaches satisfy subpart C without the need for approval. Other commenters argued that subpart C requirements should be limited to existing monitoring specified in the applicable underlying requirement, or to record keeping, or suggested revisions to section 64.9(b) which state that any and all existing monitoring at subpart C pollutant-specific emissions units satisfies the subpart C CAM requirements. At a minimum, two commenters suggested that this approach be presumed appropriate with specific rule text added to create the presumption. They also noted that monthly record keeping should be indicated to be acceptable because shorter time frames provide no added protection but greatly increase costs and harm competitiveness. One commenter noted that the requirement that existing monitoring may have to be upgraded is inconsistent with part 70 and with EPA's stated intent that part 70 should not be used to add new requirements. Similarly, commenters suggested that sources with existing monitoring should be exempt from subpart C and in other cases, the rule should create a presumption that record keeping (including the use of emission factors) is presumptively acceptable absent a showing that additional monitoring is necessary to assure compliance. One commenter noted that if the discretion under subpart C is not limited in the manner suggested by these comments, then the RIA for the CAM rule must account for the potential impacts of this discretion on the costs associated with the rule.

One commenter recommended revising section 64.9(c)(1) to add mass balances and fuel analysis to the list of requirements for which documentation of compliance satisfies subpart C requirements. The commenter noted that for glycol dehydrators and other uncontrolled emission units, these may be the only feasible monitoring approaches.

Another commenter suggested that the wording of section 64.9(a)(3) should be modified to clarify that subpart C can be satisfied by recorded findings of inspection and maintenance activities. According to the commenter, this clarification is important because subpart B-type monitoring would be cost-prohibitive for the smaller units subject to subpart C.

An industry coalition recommended that EPA reduce confusion by specifying that subpart C monitoring is comparable to the periodic

monitoring concept as written in Part 70 and not as described in the 1994 draft Periodic Monitoring Guidance Document. Another trade association stated that cost should be a factor in determining what monitoring is required under subpart C, and proposed adding a definition of "cost-effective" to section 64.1 and revising sections 64.6, 64.7, and 64.9 to clarify that cost-effectiveness is a factor to be considered in determining what monitoring is required by CAM.

Finally, an environmental group opposed subpart C and argued that the monitoring provisions should require monitoring that is capable of being correlated with emission limits. The group stated that record keeping, which is all that will be required of most subpart C sources, is not sufficient monitoring for major sources.

Response: Because EPA has decided not to include the draft subpart C provisions in the final rule as discussed in detail in section II.B. of the preamble to the final rule, no further response to these comments is necessary. The Agency notes that the significant adverse comments on the draft subpart C applicability and content provisions, as summarized above and in section 2.2 (Part III) above, were one consideration in the Agency's decision to retain the current periodic monitoring provisions in part 70 as opposed to replacing those requirements with provisions similar to draft subpart C. The Agency believes that the periodic monitoring requirements provide enhanced monitoring for those sources not covered by part 64.

Letter(s): American Automobile Manufacturers Association (VI-D-157); American Gas Association (VI-D-154); American Petroleum Institute (VI-D-146); Chemical Manufacturers Association (VI-D-152); Clean Air Implementation Project (VI-D-153); Colorado Association of Commerce and Industry (VI-D-182); Electronic Industries Association (VI-D-137); Eli Lilly Company (VI-D-124); Enron Operations Corp. (VI-D-235); General Electric Company (VI-D-156); Los Alamos National Laboratory (VI-D-210); Mobil Corporation (VI-D-115); Natural Resources Defense Council (VI-D-151); NorAm Gas Transmission Company (VI-D-142); Pharmaceutical Research and Manufacturers of America (VI-D-217); Rubber Manufacturers Association (VI-D-171); Wisconsin Electric Power Company (VI-D-130)

Section 9.2: No Monitoring Option

Comment a: Some commenters noted support for the subpart C provisions allowing no monitoring for certain requirements. One commenter specifically supported the provisions of section 64.9(c)(2)(i),(ii) and (iii) requiring no monitoring for generic applicable requirements such as opacity, design requirements not requiring ongoing verification, and emissions from insignificant activities. Another commenter suggested as another example units that are assumed to run at design capacity (e.g., no monitoring of fuel usage should be necessary for small process boilers that are assumed to operate 8760 hours/year). Another commenter also noted support for this provision and the general CAM provisions requiring sources with passive emission controls to comply with the record keeping requirements of subpart C but exempting them from the requirement to develop CAM plans. Finally, another commenter suggested that section 64.9(c)(2) can be strengthened by establishing that no monitoring is required for the emissions units and applicable standards listed and eliminating the requirement to propose this approach to the permitting authority.

One commenter requested that section 64.9(c)(3) be clarified so it is clear that units covered by this section are still only subject to subpart C, not subpart B, while another recommended deleting section 64.9(c)(3) because section 64.2(b) already states that units subject to subpart B are not subject to subpart C. Another commenter recommended that the limitations in section 64.9(c)(3) on the "no monitoring" option provided in section 64.9(c)(2) not apply to internal combustion engines because the combustion control techniques that act to limit emissions from these sources are designed and certified to maintain their effectiveness over the engine's entire useful life, so monitoring is unnecessary. The commenter recommended that the no monitoring option be available so long as actual emissions do not exceed the applicable part 70 major source thresholds, and noted that this approach is consistent with the SBA proposals.

Response: Because EPA has decided not to include the draft subpart C provisions in the final rule, no further response to these comments is necessary.

Letter(s): Eli Lilly Company (VI-D-124); Engine Manufacturers Association (VI-D-117); Enron Operations Corp. (VI-D-235); Los Alamos National

Laboratory (VI-D-210); NorAm Gas Transmission Company (VI-D-142);
UCAR Carbon Company, Inc. (VI-D-122)

Section 9.3: More Stringent State/Local Requirements

Comment a: Several industry commenters recommended deleting section 64.9(d). They argued that the section 64.9(d) requirement that owners and operators subject to more stringent monitoring requirements under state and local law propose, at a minimum, to use such monitoring to satisfy subpart C converts state-only and local-only requirements into federally enforceable applicable requirements under the Act. This provision represents an inappropriately broad use of EPA's statutory authority under section 114(a)(3) of the Act, according to the commenters. One commenter stated that this provision has no place in a federal rule that should prescribe the federal requirements, not encourage additional state requirements. The commenter argued that this is another example of how the rule is drafted to make underlying requirements more stringent. The commenter added that this provision is at odds with all prior EPA pronouncements that the title V permit process is not intended to federalize state-only requirements or add new requirements. Another commenter stated that this provision should be deleted to prevent local governments from using CAM as a local revenue enhancing mechanism.

Response: Because EPA has decided not to include the draft subpart C provisions in the final rule, no further response to these comments is necessary.

Letter(s): American Automobile Manufacturers Association (VI-D-157); Coalition for Clean Air Implementation (VI-D-164); Eli Lilly Company (VI-D-124); General Electric Company (VI-D-156); KBN Engineering and Applied Sciences, Inc. (VI-D-229); Pharmaceutical Research and Manufacturers of America (VI-D-217); Southern Company Services (VI-D-171); Utility Air Regulatory Group (VI-D-140); Virginia Power (VI-D-226)

Section 9.4: Miscellaneous Comments

Comment a: Commenters offered other proposed revisions to subpart C monitoring requirements. One commenter noted that the draft rule lists emissions from insignificant activities, as defined in section 70.5(c), as those for

which an owner/operator can propose that no monitoring is necessary. The commenter noted that part 70 insignificant activities cannot be subject to any specific emission limit or standard and are therefore not covered by part 64. Thus the commenter proposed revising section 64.9(c)(2)(iii) to refer to emission from activities that would be insignificant "but for the fact that an applicable requirement (which does not specify monitoring) applies." Another commenter argued that the ability to require performance testing to establish indicator ranges under section 64.9(c)(1)(ii) should be deleted. Another commenter recommended that in section 64.9(c)(1)(ii), EPA should clarify that the permit can reference existing indicators rather than include the indicators explicitly, because this is consistent with part 70 guidance.

Another commenter requested that EPA provide examples of descriptions proposing subpart C monitoring. Finally, one commenter questioned why CAM plans are not required for subpart C as well as subpart B given that units subject to both subparts will have to include similar monitoring information in permit applications and permits. The commenter also supported a single CAM plan for a facility as opposed to unit-specific plans. This commenter also noted two places in the rule where EPA appears to be implying that CAM plans are required for subpart C units as well as subpart B units: first, EPA references 64.3(a)(1) in paragraph (a)(2) and second, the QIP provisions in section 64.11(a)(2) refer to CAM plans exclusively even though QIPs are applicable to both subpart B and C units.

Response: Because EPA has decided not to include the draft subpart C provisions in the final rule, no further response to these comments is necessary.

Letter(s): County Sanitation Districts, Orange County, California (VI-D-231); Department of Energy (VI-D-196); General Electric Company (VI-D-156); Georgia Department of Natural Resources (VI-D-193); Los Alamos National Laboratory (VI-D-210)

Section 10: Quality Improvement Plans (QIPs)

Section 10.1: QIPs - Need for More Flexibility

Comment a: A few commenters generally supported the concept of the QIP requirements. One commenter noted that the general concept of QIPs could serve as an encouragement for owners or operators to take steps to prevent pollution through control performance optimization, but other commenters cautioned that the details of the current QIP provisions provide disincentives for this type of optimization. Another commenter stated that sections 64.10-64.11 will allow sources to comply with the law, clean up the air, and engage all interested parties without acrimony. This commenter believed that any arbitrary limitations on the use of QIP procedures to allow sources to comply would hurt the process of meeting the goals of the Clean Air Act.

Response: No response necessary.

Letter(s): Colorado Association of Commerce and Industry (VI-D-182); Department of Defense (VI-D-209); Eli Lilly Company (VI-D-124); Pharmaceutical Research and Manufacturers of America (VI-D- 217); The Society of the Plastics Industry, Inc. (VI-D-148)

Comment b: State and local agency commenters argued against adopting the QIP requirements. These commenters argued that these provisions complicate the rule and increase the burdens on state and local agencies' resources by requiring agencies to set the thresholds and review sources' QIP activities. The commenters also did not believe that the QIP provisions result in emissions reductions, and were not convinced that permitting authorities will not have to expend resources on oversight of QIPs although their approval is not required. Comments from permitting authorities also reflected concern that the QIP provisions may impede state and local agency enforcement initiatives. Another agency association noted support for STAPPA/ALAPCO's comments on QIPs and believes QIPs only provide sources with the chance to delay necessary corrective action for up to six months.

The agency commenters argued that EPA can rely on CAM plans and corrective action to ensure compliance. One agency noted that state

programs allow for initiation of enforcement actions with confirmed high levels of exceedances and that the threat of such enforcement is sufficient motivation for the regulated community to take corrective actions without the implementation of a complex administrative process like a QIP. This commenter added that it is unreasonable to impose plan preparation and submission requirements on an over-regulated community, or an approval process burden on regulatory agencies already strapped for resources. One state agency association argued that if the QIP provisions are not eliminated, QIPs should be incorporated directly into CAM plans in a manner similar to the incorporation of operation and maintenance plans in air permits.

Another agency expressed concern that numerous QIPs will likely be resource intensive for regulatory agencies. The commenter predicted that a CAM source may initiate a QIP prior to the trigger level in order to prevent a violation, and stated that since the CAM rule does not limit the number of QIPs, a source may have a number of QIPs in various stages at any one time. The commenter felt that QIP tracking and compliance determinations at such a source would become unnecessarily burdensome. Finally, the commenter suggested that the QIP provisions should be eliminated or strictly limited since they are not an essential part of CAM and realistic and appropriate compliance indicator ranges would prevent the need for the QIP provisions.

Finally, another agency argued against QIPs and stated that excursions should be enforceable, with any excused level of excursions included in the permit based on data for a source category.

Response: The Agency agrees that the QIP concept can be applied on a case-by-case by the permitting more effectively than a generally applicable requirement. The final rule provides for the QIP mechanism to be applied at the option of the permitting authority so that permitting authorities have a specific regulatory tool to address situations in which an owner or operator operates in a manner that involves excursions followed by ineffective actions to bring the monitored indicators back into the acceptable ranges established in the permit. Thus, the QIP will help assure that the owner or operator pays attention to the data and, if necessary, improves performance to the point where ongoing compliance with applicable requirements is reasonably assured.

Letter(s): Missouri Department of Natural Resources (VI-D-260); NESCAUM (VI-D-192); Ohio EPA, Division of Air Pollution Control (VI-D-180); San Diego County Air Pollution Control District (VI-D-191); STAPPA/ALAPCO (VI-D-179); State of New Jersey Dept. of Environmental Protection (VI-D-215)

Comment c: Some industry commenters also expressed disapproval of the QIP concept. Commenters stated that the QIP concept of trying to fix a problem before it has begun has become a futile effort because of the enforcement concerns related to the use of CAM data as CE. These commenters argued that CAM triggers will be set as broadly as possible because of the potential enforcement consequences and that this problem is exacerbated by designating the second QIP as a violation where there may have been no violation of a permit term or underlying standard. The commenters proposed eliminating current QIP provisions and relying on existing state procedures, such as NOVs and consent agreements, to be used only where actual permit violations have occurred.

Another industry commenter agreed that the QIP requirements are inconsistent with encouraging sources to set early warning trigger levels so that they can take corrective action before any noncompliance point can be reached. The commenter argued that sources should not have to give up "internal margins" that they have proactively set to assure compliance. The commenter added that the requirements to develop a QIP and submit it for approval are inconsistent with the role of the source in self-determining and self-reporting compliance status. The commenter stated that only if a source violates an applicable requirement should a permitting authority be concerned with how many times a source may exceed an indicator range. This commenter described the QIP requirements as being indicative of a complete distrust of the regulated community to manage compliance and imposing greater stringency than existing requirements which only require sources to report corrective action if noncompliance occurs (such as NSPS). The commenter concluded that this requirement should be deleted.

Finally, a federal agency and another commenter recommended that the detailed QIP requirements be replaced with guidelines. The agency stated that the detailed requirements deny permitting authorities and facilities the flexibility to achieve the same or similar results in a more cost-effective manner. This commenter added that in other similar

settings, water and air permitting authorities exercise much greater enforcement discretion. An industry commenter supported this position and stated that turning quality improvement planning into a regulatory requirement will likely impede its usefulness and acceptability as a management tool.

Response: The Agency agrees and, as noted above, the final rule includes only a description of the QIP concept and guidance on how this tool might be applied. The Agency also decided to delete the draft requirement that a second QIP during a permit term constitutes a violation. The final rule, consistent with the precedent of 40 CFR 60.11(d), provides for the general use of part 64 data and other information to document that the owner or operator has failed to operate and maintain an emission unit properly and provides for the QIP mechanism as one option for addressing situations in which such a failure has occurred. In that respect, any time a QIP is required there will be an underlying finding that the owner or operator has failed to take appropriate action and may be subject to enforcement for that violation. Thus, there is no need for the final rule to include separate enforcement consequences related to multiple QIPs.

Letter(s): Coastal Corporation (VI-D-123); Colorado Association Commerce and Industry (VI-D-182); Tennessee Valley Authority (VI-D-162); U.S. Small Business Administration (VI-D-239); UCAR Carbon Company, Inc. (VI-D-122)

Comment d: Certain commenters stated that QIP requirements should apply only to units with control devices. One commenter argued that it is not even clear how QIP requirements could apply to Subpart C units, many of which will be able to satisfy CAM with existing monitoring or even no monitoring, or with recordkeeping and work practices. The commenter proposed revisions to § 64.3(b)(4) to establish that the requirement to implement a QIP only applies to pollutant-specific emissions units with a control device. Another commenter stated that if Subpart C is intended to be a clarification of part 70 periodic monitoring, then it is inappropriate to subject Subpart C monitoring to the QIP provisions. A state agency requested clarification of whether QIP requirements are applicable to Subpart C units.

Response: Because subpart C has been deleted from the final rule, part 64 monitoring, and thus, QIPs, if deemed necessary would apply only to units with control devices.

Letter(s): Air Products and Chemicals, Inc. (VI-D-186); NorAm Gas Transmission Company (VI-D-142); Ohio EPA, Division of Air Pollution Control (VI-D-180)

Comment e: One commenter stated its belief that the QIP provisions were intended to provide a mechanism for sources to experiment with low indicator ranges or gain experience with implementing CAM. The commenter's suggestion for altering the QIP provisions of the 1996 draft Part 64 to realize the goals the commenter described included: shielding a reasonable number of QIPs, such as four, in a permit term from enforcement; allowing a "free" QIP during a unit's first year of operation; deleting the requirement that a QIP period be reported as a deviation; and allowing flexibility in establishing the QIP threshold. Another commenter also stated that it interpreted corrective action and QIPs as practices to be encouraged rather than sanctioned.

Response: The intent of the QIP provisions is to assure that where poor performance is identified, the corrective actions taken result in improved performance. Thus, the Agency disagrees with the commenter's approaches to QIP implementation. The final rule, consistent with the Agency's intent, allows for a permitting authority to require implementation of a QIP upon determination that the owner or operator has failed to meet its duty to take proper corrective action.

Letter(s): Can Manufacturers Institute (VI-D-181); National Environmental Development Association (VI-D-169)

Section 10.2: Threshold for Requiring a QIP (64.10)

10.2.1: Appropriate Threshold Issues

Comment a: Environmental groups argued that the 5 percent threshold is too high. One of the commenters argued that a threshold of 5 percent allows sources to operate outside their chosen ranges for more than a week

every six months before triggering a QIP which is particularly inappropriate for units relying on active control devices to control emissions. The commenter explained that a device that is not maintained or operated properly could cause a source to substantially exceed its emission limits and gave an example of failure of a control device expected to achieve 90 percent which would lead to emissions as much as ten times the applicable emission limit. Assuming that this happens for 5 percent of an operating period, the commenter stated that emissions for that period would have increased by 50 percent. The commenter also discussed the PSC case in Colorado where the CAM rule would not have required a QIP since the 19,000 violations only represented 4 percent of operating time. This commenter concluded that the CAM rule's fundamental flaws make it incapable of distinguishing between excursions that lead to significant emissions increases and those that do not.

Industry commenters, however, generally argued that the 5 percent threshold for triggering a QIP is too low. (See related comments in Section 14-Enforcement Concerns.) Several commenters agreed that formal QIPs may be appropriate when corrective action has not prevented recurring deviations and that the improvement process consists of both an evaluation procedure and a corrective action plan, but they stated that the 5 percent QIP implementation threshold is arbitrary. Another commenter noted that EPA could not possibly have sufficient information to know that it is reasonable to expect all sources to have less than 5 percent excursions when operating and maintaining properly given that this is a new program. The commenter requested that the program be more flexible and recognize the nature of implementing a new program. Others added that this approach once again serves to drive operators to set trigger levels as loosely as possible.

Certain commenters relied on a report submitted to the docket (see Docket Item A-91-52-IV-D-777) to show that, in setting NSPS, EPA has incorporated a percentage of expected exceedances ("typically 5 percent to 10 percent"). The commenters argued that setting an arbitrary percentage of 5 percent now would violate EPA's own quantitative framework in the NSPS rulemakings and possibly other rulemakings. These commenters stated that even moving from a 10 percent to 5 percent expected exceedance has significant implications for the achievability of a particular standard discussing an example based on Table 2 of the cited report. The commenters concluded by stating that

setting the threshold of 5 percent for triggering a QIP will increase the stringency of all standards and in some cases will increase the stringency of a standard by at least an order of magnitude. Similarly, a state agency noted that the proposed 5 percent threshold is not consistent with the 6 percent de minimis value established in 40 CFR 60.284(e)(1)(ii) (Subpart BB).

One industry commenter argued that the 5 percent QIP threshold is both too stringent and inconsistent with the 90 percent data availability requirement in § 64.6(b). The commenter recommended revising § 64.10(b)(2) to read that "The threshold shall be set at no higher than 10 percent unless"

A number of commenters urged EPA to delete the presumptive 5 percent QIP trigger and provide sources with the flexibility to set this percentage at a high level. Some of the commenters argued that these percentages may need to be high at first, decreasing over the term of the initial permit to allow sources to "shake down" their operations with respect to proposed monitoring. Another commenter similarly proposed that the default value in § 64.10(b)(2) be set initially at 10 percent and then gradually reduced to 5 percent over the course of the first permit term as both sources and permitting authorities gain more experience in the implementation of CAM. Similarly, a commenter suggested that no threshold be required but that the permitting authority be given discretion to require a QIP when necessary taking into account various factors such as compliance history, size of the source and pollutant toxicity. One commenter noted that the triggering of a QIP if indicator ranges are exceeded more than once is too quick a trigger.

A number of commenters also argued that any single percentage threshold is too simplistic. Commenters asserted that a 5 percent presumptive indicator range threshold is not an appropriate means of determining what does or does not need corrective action and is certainly not an acceptable way to determine what constitutes a permit violation. A commenter suggested that the magnitude of any exceedances and not merely their duration should be considered noting that Public Service Company would not have been required to implement a QIP under the facts of that case despite the fact that there were nearly 20,000 exceedances and EPA made a determination that the situation was environmentally significant. The commenter explained that this result

comes about because violations only represented 4 percent of operating time with data recorded in six-minute intervals. Industry commenters likewise asserted that in some cases, the threshold could be triggered by many small excursions over a tightly established indicator range while another source with large excursions (but of shorter duration) of a loosely established indicator range would never trigger the threshold. A commenter stated that sources must be given the flexibility to implement these provisions in a manner that results in the intended continued performance improvement. Commenters also argued that the single threshold is another example of the rule unnecessarily limiting the discretion of the permitting authority to implement the rule in an effective manner and reiterated that it runs completely contrary to the objective of having sources establish conservative trigger levels.

Commenters arguing against a single percentage threshold stated that threshold levels should be determined on a case-by-case basis and should consider factors such as the stringency of the CAM indicator ranges, the nature of the process and its inherent variability, and the type of controls installed. Similarly, commenters noted that the 5 percent threshold would generally be too harsh for units subject to limitations on hours of operation and/or where indicator ranges are set well below applicable emissions limitations or standards. Some commenters suggested that permitting authorities should be allowed to set case-specific thresholds at a percentage that allows a unit to use "cost-effective" monitoring while offering a reasonable assurance that the unit is complying with permit terms. Finally, one coalition group provided several examples of issues that the 5 percent threshold does not account for. In the commenter's first example they pointed out that a source that uses Method 22 to screen for "any visible emissions" should not be held to a 5 percent QIP trigger if subsequent follow up with Method 9 readings shows no problem. The commenter gave another example based on the fact that, where Method 9 is used, EPA studies have shown that a positive error of 5 percent can occur 5 percent of the time which would be sufficient to trigger a QIP alone. The commenter concluded that, since other parameters could likewise exceed the threshold depending on factors such as precision of the measurement, inherent variability of a source under proper operating conditions, and how the indicator range was set, these and other factors should be considered in setting an appropriate threshold.

A state agency also noted that determining exceedances or excursions would be difficult where the applicable regulations do not have an averaging period and that the 5 percent threshold to trigger a QIP may not be practical for situations when monitoring under the CAM rule is established on a less frequent basis such as daily, weekly, or monthly. Because it would be inappropriate and difficult to establish a percentage threshold for triggering a QIP that covers all types of monitoring, commenter recommends that the QIP trigger should be established rule by rule based on the source category and type of monitoring involved.

Two commenters urged EPA to provide sources with the flexibility to set a higher percentage QIP trigger for excursions than for exceedances, since parameter ranges may be set below the emission limit and excursions may occur more frequently than exceedances.

State agencies that opposed a single percent threshold noted that the potential exists for some facilities to set broad indicator ranges in order to avoid excursions that would result in exceedances of the 5 percent threshold. One agency suggested that the 5 percent operational time threshold should be issued as guidance, similar to the NSPS excess emission report program. The commenter stated that this would allow permitting authorities to evaluate the conditions involving the non-compliance event where otherwise, permitting authorities would have to implement a QIP unnecessarily or would be unable to require a QIP because they are locked into an operational time value.

Another state agency suggested revising § 64.10(a)(1) to refer to the percent threshold "measured as a percentage of operating time or as a percentage of all possible deviations over the operating period" in order to clarify how the threshold should be calculated where processes do not operate continuously. The commenter discussed the example of a Non-Metallic Mineral Processing unit, employing a fabric filter, which is required to collect data daily even though the process may not operate for the entire day.

Still another state commenter supported EPA for recognizing that some deviations from standards can be reasonably expected to occur. This commenter provided a copy of a state regulation for CEMS [Tenn. Rule 1200-3-20-.06] which establishes de minimis levels below which no notices of violations will be issued. The commenter explained that the

rule establishes different de minimis levels for each source subject to the rule and each pollutant monitored.

Certain commenters recommended allowing the threshold to be set at any reasonable level in order to provide an incentive to set low trigger levels. The commenters argued that if a source sets the trigger level low, then a higher threshold for triggering a QIP would be appropriate.

Response: The Agency agrees that no one threshold applies equally to all control device situations. Further, the Agency recognizes that individual situations may call for shorter or longer thresholds or thresholds related to parameters values rather than duration of excursions. The final rule provides that a QIP trigger may be set in the permit but does not require it. Where such a trigger is used, a level of 5 percent is suggested as a potentially appropriate threshold. The final rule also provides that a QIP can be required after a determination by the permitting authority or the Administrator that a source owner or operator has failed to conduct proper operation and maintenance as documented through part 64 monitoring and other available information. In this respect, the QIP provisions are analogous to existing corrective action remedies available to address compliance problems.

Letter(s): American Automobile Manufacturers Association (VI-D-157); American Gas Association (VI-D-154); American Municipal Power - Ohio (VI-D-159); Baltimore Gas & Electric Company (VI-D-177); Can Manufacturers Institute (VI-D-181); Chemical Manufacturers Association (VI-D-152); Clean Air Implementation Project (VI-D-153); Coalition for Clean Air Implementation (VI-D-164); Coastal Corporation (VI-D-123); Colorado Association of Commerce and Industry (VI-D-182); DuPont Engineering (VI-D-127); Eastman Chemical Company (VI-D-173); Eli Lilly Company (VI-D-124); Exxon Company, USA (VI-D-135); General Electric Company (VI-D-156); Georgia Department of Natural Resources (VI-D-193); Mobil Corporation (VI-D-115); National Environmental Development Association (VI-D-169); Natural Resources Defense Council (VI-D-151); Nebraska Department of Environmental Quality (VI-D-211); NorAm Gas Transmission Company (VI-D-142); Pennsylvania Chamber of Business and Industry (VI-D-114); Rubber Manufacturers Association (VI-D-149); San Diego Air Pollution Control District (VI-D-191); Sierra Club, Lone Star Chapter (VI-D-242); State of Tennessee Department of Environment and Conservation (VI-D-234); Texaco Environment Health & Safety (VI-D-

199); Texas Natural Resource Conservation Commission (VI-D-189);
Utility Air Regulatory Group (VI-D-140); Virginia Power (VI-D-226);
Wisconsin Electric Power Company (VI-D-130)

10.2.2: Particular Threshold Concerns

Comment a: Certain commenters recommended deleting the authority of the permitting authority to require a more stringent threshold. One commenter proposed eliminating the phrase ". . . set no higher than . . ." from § 64.10(b)(2) to eliminate permitting authority discretion to set the percentage for requiring a QIP at less than 5 percent. Another commenter argued that the provision enabling a permitting authority to impose a percent threshold for triggering a QIP that is less than 5 percent is too open-ended and stringent. The commenter stated that this is particularly true for the initial six-month CAM reporting period where CAM experience is being gained for the first time. Commenter suggests that a 5 percent threshold should be the minimum that permitting authorities can require.

Response: This is no longer an issue as the final rule includes no QIP requirement nor a specific threshold minimum or maximum if a QIP is to be applied.

Letters: Hawaiian Electric Company, Inc. (VI-D-165); Natural Gas Pipeline Company of America (VI-D-118)

Comment b: One commenter suggested that the QIP trigger should reflect the part 64 data availability requirements. The commenter proposed revisions to § 64.10(a)(1) such that the percentage threshold to trigger a QIP would be based on monitoring time during any semiannual reporting period, consistent with the part 64 minimum data availability percentage requirements. Similarly, a state agency noted that § 64.10 is not consistent with § 64.3(b)(4) and vice versa.

Response: The final rule includes neither a required minimum data availability requirement or a QIP threshold. Neither is an issue for the final rule.

Letters: Eli Lilly Company (VI-D-124); Ohio EPA, Division of Air Pollution Control (VI-D-180)

Comment c: One commenter stated that, if EPA does not eliminate provisions making the second QIP in a permit term a permit violation, the QIP trigger should be based on actual exceedances of emissions limitations or standards. The commenter argued that sources could then set indicator ranges closer to actual operating parameters without concerns that excursions from those ranges will trigger a QIP. Under this approach, the commenter recommended that triggering a QIP a specified number of times during the permit term still constitute a separate permit violation which would provide a further incentive for setting conservative indicator ranges.

Response: The final rule does not make the second QIP a violation, but leaves the enforcement implications of an owner's failure to operate and maintain control equipment within the applicable indicator ranges to the appropriate permitting authority.

Letter(s): Eli Lilly Company (VI-D-124)

Comment d: One commenter was concerned that any exceedance or excursion could trigger a QIP and suggested that an owner or operator be allowed a certain number of exceedances/excursions per year before they are required to implement a QIP.

Response: The number of exceedances or excursions allowed before a more comprehensive correction plan or other enforcement action is necessary is case-specific and left to the discretion of the appropriate permitting authority in the final rule.

Letter(s): Occidental Chemical Corporation (VI-D-166)

Comment e: Some commenters argued that excursions that occur during specifically excused excursions or during startup, shutdown or malfunction should not count toward determining whether a QIP is necessary. One commenter stated that the fact that a source may not be operating within normal ranges during such conditions is not indicative of any failure or defect in the CAM plan that would need a QIP. One commenter noted that the QIP could be triggered because indicator ranges were set unrealistically low due to the use of new and experimental monitoring techniques and insufficient data availability about those new techniques. Another

commenter recommended that a higher threshold be allowed when justified for low capacity factor units or other special situations. One commenter recommended that § 64.3(b)(4) should be revised to explicitly allow permitting authorities to exempt certain types of excursions from calculating the QIP threshold. Another stated that this would mirror EPA NSPS policy. Another commenter agreed that excused excursions should not count toward the QIP threshold since the entire concept of excusing an excursion is based on the idea that adverse consequences are unwarranted in some cases. The commenter specified recent standards, such as the HON, which provide a number of excused excursions which diminishes over time as problems with a new device are resolved and also specifically exempt certain excursions such as those that occur during start-up, shutdown and malfunction. The commenter explained that counting these excursions toward a QIP would increase the stringency of such standards. This commenter agreed with others who stated that excursions which are not associated with excess emissions, such as excursions from indicator ranges that were set very low, should not be counted in calculating the QIP threshold.

Response: The Agency agrees that there is a plethora of process and control device situations for which determining the appropriate threshold for applying a QIP or other appropriate enforcement action is not possible in a general format of a rule such as part 64. Further, the Agency recognizes that a particular emission unit may be subject to emission limitations with designated periods of exceptions including start-up, shutdown, and malfunctions. It is reasonable to delete excursions that occur during such periods in determining the total duration of excursions during a reporting period. It is also reasonable that such site-specific determinations are possible only on a case-by-case basis. For this and other reasons noted above, the final rule does not include specific threshold requirements for implementing QIP nor does the rule specify that a QIP is the only appropriate enforcement response to egregious control equipment problems.

Letter(s): Baltimore Gas & Electric Company (VI-D-177); Dow Chemical Company (VI-D-120); Houston Lighting & Power Company (VI-D-228); Niagara Mohawk (VI-D-168); Ohio Chamber of Commerce, et al (VI-D-160); Pennsylvania Chamber of Business and Industry (VI-D-114); Southern Company Services (VI-D-171); Southwestern Public Service Company (VI-D-224); Texas Utilities Services, Inc. (VI-D-121); Total Petroleum, Inc.

(VI-D-190); Utility Air Regulatory Group (VI-D-140); Virginia Power (VI-D-226); Wisconsin Electric Power Company (VI-D-130)

Comment f: One commenter supported the current CAM draft's use of a percentage threshold as a QIP trigger rather than the use of a numerical threshold and noted that a percentage threshold is a more rational way of determining whether or not a facility has a problem. A group of commenters requested that EPA clarify that CAM compliance plans are not required in any circumstances where a QIP is necessary and stated that this would clear up a perceived redundant requirement. Finally, another commenter requested clarification of the phrase "in any reporting period." The commenter asked whether this meant the frequency with which the Part 70 permit requires submittal of emissions reports. The commenter noted that the reporting frequency can significantly affect the number of QIPs that are prepared during a permit term (i.e., the more frequent the reporting frequency the greater the possibility that a QIP could be required), and recommended that the 5 percent threshold be determined on an annual basis.

Response: The Agency agrees that a QIP requirement in part 64 could result in redundant compliance schedules and, as noted above, has removed the requirement from the final rule. Clarification of the reporting frequency and how such might affect QIPs, if applicable, are to be determined on a case-by-case basis with the permitting authority.

Letter(s): American Electric Power (VI-D-129); California Association of Sanitation Agencies (VI-G-206); County Sanitation Districts of Los Angeles County (VI-D-232); Niagara Mohawk (VI-D-168); Tri-TAC (VI-D-225)

Section 10.3: Elements of QIPs (64.11(a))

Comment a: Certain commenters recommended that § 64.11(a)(3) should allow QIPs to fix only monitoring problems if monitoring problems cause the high level of excursions. A commenter stated that this is especially warranted given the likely trial and error process during early CAM implementation. Other commenters noted that § 64.11(a)(2) appears to assume that "control performance problems" is the only reason a QIP would be triggered. The commenters argued that QIPs could also be triggered

because indicator ranges were set unrealistically low (e.g., because adequate data were not available). These commenters recommended that this provision should be revised to be neutral with respect to the likely cause of the QIP, and § 64.11(a)(3) should be revised to include "modifications of levels specified in the CAM plan" as one of the actions that might follow completion of the QIP.

Response: The Agency disagrees. The Agency notes that the final rule, like the 1996 part 64 Draft, does not provide for QIPs that address monitoring only. The Agency believes that this type of change should not be made through a QIP. By its nature, a QIP focuses on situations where the owner or operator has failed to meet its obligation to properly operate and maintain an emissions unit or control device properly. The QIP requirements in the final rule clarify this approach and no longer mandate that a QIP be implemented solely because a set duration of excursions or exceedances occurs. A source owner who needs to change approved part 64 monitoring can address any monitoring problems directly through the appropriate permit modification process.

Letter(s): Mobil Corporation (VI-D-115); National Environmental Development Association (VI-D-169); Utility Air Regulatory Group (VI-D-140); Virginia Power (VI-D-226)

Comment b: One commenter noted that § 64.11(a)(3) requires the QIP to be modified to include corrective actions. The commenter requested that the rule specify when it is envisioned that the QIP be modified.

Response: Because there is no requirement for a QIP to be submitted or approved, the timing of this issue is not addressed specifically in the rule. Because the QIP obligations should be implemented as expeditiously as practicable, EPA would expect the corrective action procedures to be added to the QIP as soon as the source as determined the appropriate steps to take based on its investigative phase.

Letter(s): Niagara Mohawk (VI-D-168)

Comment c: One commenter suggested that where a QIP is required for a major facility, it should be on a source/pollutant-specific basis, while other Subpart B sources should be required to develop a QIP and modify it as necessary to gain experience.

Response: The QIP provisions in the final rule include significant flexibility in how the permitting authority can use the QIP tool to improve performance. The suggested approach could be followed by a particular agency in appropriate circumstances.

Letter(s): Pennsylvania Department of Environmental Protection (VI-D-174)

Comment d: One commenter stated that, for Subpart C units, the QIP concept does not apply in many cases, and the rule should provide significant flexibility in these cases. The commenter described indicator ranges, excursions, and thresholds as inappropriate for many simple monitoring approaches and recommended that specific content be left to the permitting authority's discretion and that source be allowed to use existing non-compliance reports where appropriate.

Response: Because the final rule does not include the subpart C provisions, no response to this comment is necessary.

Letter(s): Los Alamos National Laboratory (VI-D-210)

Section 10.4: Timing of QIPs (64.11(b))

Comment a: Some commenters expressed support for the time allowed for QIP completion in the rule. Commenters noted support for the flexibility in draft § 64.11(b) which allows an owner or operator to obtain a site-specific time extension allowing more than 180 days to complete a QIP if necessary. However, one commenter did not feel that EPA approval would be necessary since the permitting authority would have knowledge of site-specific circumstances. Another commenter stated generally that it believes 180 days is a reasonable period.

Environmental groups and some state agencies, however, argued that a period of 180 days is too long for completing a QIP. One environmental

group stated that it is inappropriate to allow six months to solve a problem that may be causing a source to have emissions that are grossly in excess of its emission limits, particularly when the rule does not require this period to be reported as noncompliance. A state agency agreed and proposed that a plan be submitted within 14 days outlining an enforceable compliance schedule for implementing a QIP. This commenter argued that without an approved, enforceable schedule, possible emission violations could continue without recourse from the permitting authority. Another state agency stated that 180 days may be too long for completing a QIP, especially since the rule seems to allow sources the opportunity to extend this period. The commenter asked that states be given discretion to decide the time period for completing a QIP on a case-by-case basis. Finally, a state agency association stated that, if the QIP provisions are not eliminated from the CAM rule, it recommends reducing the time allowed for QIP completion from 180 days to 30 days.

In addition, some industry commenters argued that a period of 180 days is too short for completing a QIP. One commenter noted that the pharmaceutical industry is a batch manufacturing industry where products are run in campaigns which may last a few weeks, a few months or all year. The commenter stated that in the situation, if the need for a QIP has been identified near the end of a product campaign, the opportunity to implement the QIP may not occur for some time, until the product is manufactured again and that implementation of the QIP immediately upon permitting authority notification and completion within 180 days may not be practicable. The commenter also noted that the 180 day limit may also not be feasible where a permit modification becomes necessary. This commenter recommended revisions to § 64.11(b) to allow completion of the QIP in a period of more than 180 days without the approval of the permitting authority or EPA. Other commenters stated that if equipment must be ordered or a permit revision must be obtained, QIP implementation often will require longer than 180 days to complete. These commenters suggested that the rule require that the completion of the QIP should be in accordance with the schedule outlined in the source's QIP.

Finally, one commenter stated generally that the time periods for implementation, completion and notification of a QIP are arbitrary and should be set in the context of an individual QIP.

Response: The Agency agrees that site-specific situations will dictate the appropriate time necessary to complete appropriate control equipment or process corrections. For this reason, the final rule requires source owners and operators to complete any QIP, if applied, as expeditiously as practicable and to notify the permitting authority if they determine that a QIP will take longer than 180 days rather than establishing a specific amount of time within which the QIP must be completed. Within this guideline is an inherent role for the permitting authority to review the correction activity and take appropriate enforcement action if the source owner has not responded expeditiously with effective behavior.

Letter(s): American Automobile Manufacturers Association (VI-D-157); Association of Battery Recyclers (VI-D-155); Chemical Manufacturers Association (VI-D-152); General Electric Company (VI-D-156); Georgia Department of Natural Resources (VI-D-193); Minnesota Pollution Control Agency (VI-D-197); Natural Resources Defense Council (VI-D-151); Nebraska Department of Environmental Quality (VI-D-211); NESCAUM (VI-D-192); Pharmaceutical Research and Manufacturers of America (VI-D-217); Sierra Club, Lone Star Chapter (VI-D-242); Texaco Environment Health and Safety (VI-D-199); Utility Air Regulatory Group (VI-D-140)

Comment b: One commenter stated that the period for completing a QIP should not include any time necessary to obtain approval of a CAM plan modification. Given the uncertainties concerning the process by which permitting authorities will approve modifications to CAM plans, the commenter requested that EPA state that the 180 day period for completing a QIP does not include any time necessary to gain approval of a permit modification request resulting from a QIP.

Response: The Agency disagrees. The QIP process should not be applied to developing and obtaining modifications to the monitoring. Such modifications should be implemented through the permit revisions process.

Letter(s): Eli Lilly Company (VI-D-124)

Comment c: One commenter requested that EPA clarify the meaning of the term "completion" in § 64.11(b)(2). The commenter noted that "completion"

can mean either that the QIP be prepared and implementation begun or that all elements of the QIP are finished. Another commenter requested clarification as to how long a source must adhere to an implemented QIP. The commenter stated that the requirement to follow a QIP should end when certain criteria are met.

Response: The Agency intends that completion of a QIP mean that the control equipment modification, correction, or replacement deemed necessary to provide that the pollution-specific emissions unit is again operating in compliance with the applicable limitation or standard has been completed.

Letter(s): Georgia Department of Natural Resources (VI-D-193); NESCAUM (VI-D-192)

Comment d: One commenter suggested that during the first round of permits, QIP applicants should have the opportunity to modify a proposed QIP before submitting it for permitting authority approval. The commenter recommended giving the applicant at least two or three modifications for their QIP before submitting it to the permitting authority and then requiring implementation of the QIP within 60 days after approval.

Response: Because the final rule provides that the QIP be applied at the discretion of the permitting authority, no response to this comment is necessary.

Letter(s): Pennsylvania Department of Environmental Protection (VI-D-174)

Section 10.5: Recordkeeping and Reporting for QIPs (64.11(c))

Comment a: Some commenters objected to the § 64.11(c)(2) requirement to report that a QIP has reduced the likelihood of similar levels of excursions or exceedances. The commenters stated that this requirement is unnecessary because the QIP requirement, by definition, is designed to reduce the likelihood of excursions or exceedances.

Response: Because the final rule provides that the QIP be applied at the discretion of the permitting authority, no response to this comment is necessary.

Letters: American Automobile Manufacturers Association (VI-D-157); Chemical Manufacturers Association (VI-D-152); General Electric Company (VI-D-156)

Comment b: A few commenters stated that sources should not be required to report test method results after a source has implemented its QIP. These commenters noted that parametric levels and ranges are established on the basis of testing or other relevant information and argued that triggering a QIP should not automatically mean that the validity of those tests or information is suspect.

Response: The Agency agrees that a performance test is not always necessary to confirm that a control equipment or process modification is necessary. What is necessary is left to the discretion of the permitting authority in the final rule.

Letter(s): American Automobile Manufacturers Association (VI-D-157); Chemical Manufacturers Association (VI-D-152); General Electric Company (VI-D-156); National Environmental Development Association (VI-D-169) Total Petroleum, Inc. (VI-D-190)

Comment c: One commenter suggested that § 64.11(d) should be deleted because this issue is already addressed by part 70.

Response: The Agency has deleted the subject requirement for the owner to certify that the QIP has been successful; however, the Agency believes that this type of statement is an appropriate provision designed as a certification-style requirement which indicates to the permitting authority that the source owner or operator believes the QIP has been successful.

Letter(s): General Electric Company (VI-D-156)

Comment d: Two commenters suggested that the rule should be modified so that a full permit revision is not required for CAM plan changes that result from implementing a QIP.

Response: The level of permit revision necessary following a QIP is left to the discretion of the permitting authority in the final rule.

Letters: Utility Air Regulatory Group (VI-D-140); Virginia Power (VI-D-226)

Section 11: [Reserved]

Section 12: Part 70/71 Revisions

Section 12.1: Monitoring Revisions

12.1.1: Revision of Periodic Monitoring Language

Comment a: Two commenters stated that the draft revisions would eliminate backstop monitoring at too many sources. They argued that the gap-filling provided by CAM is incomplete since Subpart C allows owners to propose to perform no monitoring even at units that may not be insignificant. While periodic monitoring may be unnecessary for units that are truly insignificant, EPA must ensure that any exceptions to monitoring are narrowly tailored to such units. In supplemental comments, an environmental organization added that leaving a large number of sources subject to periodic monitoring as described in part 70 is inappropriate. The commenter argued that it is not clear that part 70 would require anything beyond existing monitoring and it is inconceivable that the intent of the enhanced monitoring requirement was for the vast majority of sources to do what they were already doing.

A State agency noted that the CAM revisions to periodic monitoring requirements do not cover certain sources, and therefore, the periodic monitoring revisions should be revised such that permitting authorities have the discretion to determine what monitoring will be appropriate for sources which are not subject to CAM, NSPS or NESHAP requirements but are subject to periodic monitoring requirements.

Response: The final rule does not include subpart C but instead retains the periodic monitoring provisions in part 70 and 71 based on these and other concerns (see sections 2.2 and 9 (Part III), above). The part 70 and 71 periodic monitoring provisions require that all existing monitoring be included in permits and that, if such monitoring does not exist or is inadequate to provide a reasonable assurance of compliance, additional, periodic monitoring must be included in the permit.

Letter(s): Natural Resources Defense Council (VI-D-151 and 244); State of Tennessee Department of Environment and Conservation (VI-D-234)

Comment b: Some commenters supported the provision for streamlining multiple requirements. Commenters noted that this change to Part 70 will promote the important streamlining concept outlined in White Paper No. 2. However, one commenter noted concern over whether subsumed limits under a streamlining concept count as "emission limitations or standards" for triggering CAM applicability (see detailed summary under section 2.3.1 (Part III)).

Response: Because there were no adverse comments on this draft revision, the final rule contains this revision to §70.6(a)(3)(i). As mentioned above in Section 2.3.1 (Part III), Comment c, subsumed limits that do not appear in a title V permit would not count as "emission limitations or standards" for purposes of part 64 applicability.

Letters: Air Products and Chemicals, Inc. (VI-D-186); Clean Air Implementation Project (VI-D-153); Integrated Waste Services Association (VI-D-147); South Carolina Electric & Gas Company (VI-D-116); Utility Air Regulatory Group (VI-D-140)

Comment c: One commenter argued that EPA should delete references to sections 114(a)(3) and 504(b) in the proposed amendments to Part 70 and Part 71. The commenter stated that the phrase "and any other procedures and methods that may be promulgated pursuant to sections 114(a)(3) or 504(b) of the Act" should be deleted from 70.6(a)(3)(1) and Part 71. According to the commenter, the CAM rule implements those sections and it would be a breach of faith after the long development of CAM with stakeholder input to promulgate other rules under these provisions.

Response: The Agency disagrees. These references merely indicate that the Agency has the ability to promulgate additional requirements under these statutory provisions, including specific procedures and methods that could supplement the general requirements in Part 64.

Letter(s): Chemical Manufacturers Association (VI-D-152)

Comment d: One state agency suggested that EPA should consider revising the part 70 definition of "insignificant activities." The commenter noted that if the definition of "insignificant activity" were revised so that a permitting

authority would have discretion to classify some trivial units that are subject to applicable requirements as "insignificant activities," many of the concerns about periodic monitoring could be addressed.

Response: This suggestion is beyond the scope of the Part 64 rulemaking, and thus is not addressed in this document. This issue goes beyond monitoring and potentially affects other applicable requirements such as underlying emission limits that may apply to small emissions units.

Letter(s): Georgia Department of Natural Resources (VI-D-193)

Comment e: A commenter noted in supplemental comments that the portions of the RIA released for comment indicate that the final rule will not provide the clarification of the part 70 periodic monitoring requirements promised by the CAM program.

Response: The commenter is correct that the final rule does not include provisions analogous to subpart C of the 1996 part 64 Draft. See the response to Comment b in section 9.1 (Part III) for the Agency's response to this issue.

Letter(s): Utility Air Regulatory Group (VI-D-252)

12.1.2: Interim Issues for Periodic Monitoring

Comment a: Several commenters noted that they support the concept of eliminating periodic monitoring from part 70 so that all monitoring required above and beyond existing monitoring occurs through part 64 only. One of these commenters noted that addressing both periodic monitoring and enhanced monitoring in one rule promotes regulatory efficiencies. However, several of these commenters argued that EPA should immediately suspend the existing periodic monitoring requirements of Part 70 and Part 71 or make clear that existing monitoring satisfies those requirements. They argued that EPA should not require states and sources to expand resources to comply with a rule which the Agency intends to replace. They also noted that timing problems will make the transition unworkable. The CAM rule will not be finalized until mid-1997 and will not be incorporated into state implementation plans until well after

that. In the meantime, it is not desirable for states currently drafting Part 70 permits to be required to implement existing periodic monitoring requirements which the CAM rule will replace, according to these commenters. One trade association suggested that EPA immediately issue a narrowly-focused rule eliminating the periodic monitoring requirements in section 70.6(a)(3)(i)(B). The rulemaking process could be accelerated by simultaneously issuing a notice of proposed rulemaking and a provision that the rule will become effective within 30 days if no substantive adverse comment is received. Another commenter stated that if states continue to implement current Part 70 periodic monitoring requirements in their permit programs, regulated sources may be faced with overlapping and duplicative regulatory requirements when CAM is implemented.

Other commenters noted generally that EPA should address periodic monitoring in concert with CAM. One commenter stated that the current EPA strategy indicates a plan to address periodic monitoring in two years, while another stated that EPA should provide states with immediate guidance on periodic monitoring so that any current state development and implementation of Part 70 periodic monitoring will be as consistent as possible with the CAM requirements which will replace these provisions of Part 70.

Response: As mentioned in Section I.C.4 of the preamble to the final rule, the Agency disagrees with the commenters' suggestions to immediately suspend or remove the monitoring provisions of parts 70 and 71. Moreover, because the Agency has decided not to delete the periodic monitoring requirement in part 70 or to replace that provision with provisions similar to the draft subpart C of part 64, these comments are generally no longer applicable.

Letter(s): Air Products and Chemicals, Inc. (VI-D-186); American Automobile Manufacturers Association (VI-D-157); American Gas Association (VI-D-154); American Petroleum Institute (VI-D-146); BP Oil Company (VI-D-113); Chemical Manufacturers Association (VI-D-152); CITGO Petroleum Corporation (VI-D-172); Class of '85 Regulatory Response Group (VI-D-161); Clean Air Implementation Project (VI-D-153); Coastal Corporation (VI-D-123); Colorado Association of Commerce and Industry (VI-D-182); County Sanitation Districts of Orange County, California (VI-D-231); Eastman Chemical Company (VI-D-173); Eli Lilly Company (VI-D-124);

General Electric Company (VI-D-156); Mobil Corporation (VI-D-115); Ohio Chamber of Commerce, et al (VI-D-160); Pennzoil Company (VI-D-133); Phillips Petroleum Company (VI-D-131); South Carolina Electric & Gas Company (VI-D-116); Southern Company Services (VI-D-171); Tennessee Valley Authority (VI-D-162); Utility Air Regulatory Group (VI-D-140); Wisconsin Electric Power Company (VI-D-130)

Section 12.2: Compliance Certification

Comment a: A few commenters noted general support for the compliance certification provisions. A state agency agreed with EPA regarding the need for the proposed compliance certification provisions. An industry commenter supported EPA's decision that not all deviations constitute violations and the concept that states may classify some excursions as "excused." The commenter stated that excused excursions, which are also provided for in recent EPA regulations such as the HON and the Group 1 and Group 4 Polymers and Resins MACT standards, are important because no monitoring system or control device can work perfectly all the time and there is an ever-increasing emphasis on using data from parameter monitoring as proof of violations.

Public interest groups, however, argued that the draft rule improperly eliminates the need to certify compliance with emission standards. The groups stated that sources will not really be able to certify compliance because they will not have emissions information to compare with the standards and that the rule improperly allows them to state that they do not know whether they are in compliance or not. They claimed that, to accommodate the absence of emissions data, the draft rule allows owners to provide a statement on their compliance status based on uncorrelated parameter measurements in place of a compliance certification. In this statement, owners can claim some sort of compliance regardless of monitoring results, according to the commenters. They argued that sources with no excursions can identify continuous compliance although the absence of excursions from owner-selected ranges does not necessarily constitute compliance with emission limits, and even sources that have experienced excursions can claim compliance by specifying intermittent compliance. They concluded by stating that owners are absolved of any duty to know their compliance status and report it

accurately, and that this "statement" provides a false appearance of compliance with standards.

Response: The Agency disagrees with the commenters' suggestions that the rule promotes ignorance by responsible officials on the compliance status of their pollutant specific emissions units with control devices. On the contrary, the Agency believes the rule changes enhance responsible officials', permitting authorities', the Agency's, and the public's knowledge concerning pollutant specific emissions units' compliance status. As a result of today's rulemaking activity, owners or operators will be required to collect data, and pay attention to that data, from emissions control devices, which should lead to better operation and maintenance of those devices. Better operation and maintenance should lead to consistently-achieved emissions reductions, as opposed to temporary reductions achieved during sporadic emissions unit testing. Moreover, the permitting authorities will be better able to target their enforcement and future rulemaking activities by focusing on those emissions units with one or more possible exceptions to compliance. Likewise, the public will benefit by being able to identify non-complying or potential non-complying pollutant-specific emissions units without performing resource-intensive reviews.

The Agency also disagrees with the assertion that compliance certification on the basis of part 64 data provides a false appearance of compliance with emission standards. Commenters' claims here are based on the mistaken notion that compliance certifications can be made based only on direct measurement of emissions or on statistically correlated parameter monitoring. As explained in the preamble and in section 6 of this document, EPA believes that a reasonable assurance of compliance can be provided by monitoring using indicator levels established on the basis of performance testing data and other engineering and historical data. Owners and operators will not be able to certify to compliance regardless of the monitoring results under part 64. Owners and operators may not certify to continuous compliance if monitoring shows exceedances or excursions from indicator levels. In such circumstances, owners and operators may, at most, certify to intermittent compliance. If a source is in a constant state of exceedance or excursion for an entire certification period, the owner or operator cannot even certify to intermittent compliance. Thus, it is inaccurate to claim, as some

commenters did, that owners and operators can assert some type of compliance regardless of the monitoring results.

Letter(s): American Lung Association et. al. (VI-D-238); Dow Chemical Company (VI-D-120); General Electric Company (VI-D-156); Natural Resources Defense Council (VI-D-151); Natural Resources Defense Council (VI-D-267 and 268); Texas Natural Resource Conservation Commission (VI-D-189)

Comment b: Several industry commenters supported EPA's interpretation of section 114 regarding the term "continuous or intermittent." These commenters supported EPA's explanation in the preamble and the revisions to the part 70 compliance certification provisions that "continuous or intermittent" refers to the methodology used to produce the data on which a certification is based. One commenter cautioned that requiring a source to state whether data are intermittent or continuous is reasonable, but assuming noncompliance for periods without test data would not be. Another commenter noted that this approach ensures that CEMS are not required in order to certify continuous compliance, while still another commenter cautioned generally that continuous compliance should not be interpreted to mean that monitoring was performed using a CEMS or COMS.

An environmental group, however, argued that the rule does not meet the Act's requirement that sources be able to certify whether compliance is continuous or intermittent. The commenter argued that sources will not be able to use the monitoring under part 64 to certify whether compliance was continuous or intermittent since they will not have adequate emissions information to compare with emissions standards, and emphasized their view of the Act as requiring certification as to whether compliance is continuous or intermittent. The commenter stated that EPA's argument that the Act can be interpreted to require that sources certify whether the method used to certify compliance is continuous or intermittent is erroneous, adding that the language of the statute is not ambiguous and does not require clarification by EPA. Further, if clarification were needed, the legislative history supports the conclusion that this section of the Act is focused on compliance, according to the commenter. Another commenter also recommended that EPA use the

definition of "intermittent" included in the part 70 preamble (i.e., that intermittent means that periods of noncompliance occurred).

Response: The Agency believes additional explanation of what it means to certify to intermittent compliance is necessary. The Agency disagrees with the view that the statutory term "intermittent" refers only to the methodology used to measure compliance but agrees that "intermittent" refers to compliance. Any suggestions following the "methodology" interpretation do not accurately reflect the interpretation relied upon by EPA in promulgating this rule. Nonetheless, the methodology used in determining compliance is relevant to whether a certification can be for continuous or intermittent compliance. The Agency has required source owners to identify whether the methodology used for the certification provides data on a continuous basis or intermittently so that EPA can evaluate whether the methodology provides a basis for a continuous or intermittent certification.

The question remains as to what constitutes "intermittent" compliance. The Agency disagrees with the view that a certification of intermittent compliance is a certification of noncompliance as to periods not shown to be in compliance. Rather, EPA interprets "intermittent" compliance as meaning no more than the fact that monitoring or other information is not available to demonstrate compliance for certain periods in the overall certification period. As to other periods covered by the certification, a certification of intermittent compliance means either the source was in noncompliance or the data were not sufficient (e.g., excursions from indicator ranges occurred or no data were available) to make an accurate determination regarding whether the source was in or out of compliance. EPA believes this is a reasonable interpretation of the term "intermittent" compliance.

The certification provision does not require owners and operators to expressly use the terms continuous or intermittent in their certifications. Rather, EPA believes it more useful to have owners and operators submit the data and information in the certification that show whether the certification is for intermittent or continuous compliance. Critical to this showing is the information on whether the method used produces intermittent or continuous data and whether any deviations, exceedances, or excursions have occurred during the certification period. For example, when a responsible official certifies compliance based on a method

providing intermittent data or notes any deviations, exceedances, or excursions, this will show that the certification is for intermittent compliance. When a responsible official certifies compliance based on a method providing continuous data and no deviations, excursions, or exceedances have occurred (or all such occurrences have been adequately addressed by other information), this will show that the certification is for continuous compliance. Accordingly, EPA believes that this rulemaking is consistent with the statutory command that compliance certifications include whether compliance is "continuous or intermittent."

CAM monitoring has been designed to produce data so that certifications can be made which show whether compliance is continuous or intermittent. The CAM rule requires data collection at the frequency necessary to indicate changes in control device performance. See § 64.3(b)(4). Where no changes are detected outside the indicator ranges set to provide a reasonable assurance of compliance, then the CAM data are sufficient to allow a certification of continuous compliance with applicable emission standards. Where CAM data indicate that episodes of excursions or exceedances have occurred, the CAM monitoring data do not provide a reasonable assurance that the source is in compliance for duration of the excursion or exceedance and thus cannot serve as a basis for certifying continuous compliance for the certification period. Unless other data exist to show compliance for the time when excursions or exceedances occurred, the owner or operator would be certifying to intermittent compliance for that certification period.

Letter(s): Air Products and Chemicals, Inc. (VI-D-186); American Automobile Manufacturers Association (VI-D-157); California Association of Sanitation Agencies (VI-D-206); Chemical Manufacturers Association (VI-D-152); Class of '85 Regulatory Response Group (VI-D-161); Clean Air Implementation Project (VI-D-153); County Sanitation Districts of Orange County, California (VI-D-231); Eastman Chemical Company (VI-D-173); Kennecott Corporation (VI-D-119); Los Alamos National Laboratory (VI-D-210); National Environmental Development Association (VI-D-169); Natural Resources Defense Council (VI-D-151); Tennessee Valley Authority (VI-D-162); Tri-TAC (VI-D-225); Wellman, Inc (VI-D-237)

Comment c: Some commenters raised concerns about how the draft revisions to part 70 were written, and that the revisions may not be consistent with EPA's

intent. Some commenters opposed the requirement to identify all deviations as "exceptions" to the compliance certifications. One group stated that some deviations may be excused and, by definition, would not be "exceptions." Two utility commenters argued that this language could prevent sources from certifying compliance in the face of any excess emissions or excursions. Others noted that to match EPA's intent stated in the preamble of the CAM proposal, i.e., that deviations are only potential exceptions to compliance, both § 70.6(c)(5)(iii)(C) and the parallel section of part 71 should be revised to read: "The certification shall identify as possible exceptions to the certification of compliance any period for which the owner or operator identifies a deviation."

Two commenters argued for a more significant change to the draft revisions. They argued that so long as a source successfully takes corrective actions when CAM shows a possible problem and no reference method testing determines that a violation has occurred, a source should be able to certify without exceptions. According to these commenters, any other result effectively changes the underlying standards by determining compliance based on means other than required compliance test procedures.

Some commenters also opposed having to categorize exceedances and excursions as deviations and having to identify excursions in certifications. The commenters noted that, first, EPA has failed to provide protections in part 70 from states categorizing any deviation as a violation, but rather has limited that protection to part 71. The commenters also stated that even if a deviation is not always a violation, identifying exceptions to compliance based on inconclusive excursion values could inappropriately stigmatize a source and interfere with its business dealings with other companies or with the general public. They added that citizens could also try to use the information to bring a citizen suit even where the information has no actual bearing on proof of noncompliance. This problem will be especially acute if EPA proceeds with the CE rulemaking, according to the commenters. They cited to the Unitek decision as an example where a judge used a permit compliance certification against a source in just this fashion. One commenter stated that instead, excursions should be identified in a separate section of the certification which would highlight adverse trends and those sources that may need follow up attention. Coupled with a shield from the use of CAM as CE, this would encourage sources to set aggressive trigger levels that

truly provide early warning levels, according to the commenter. The commenter stated that, if EPA continues to classify excursions as deviations, then the part 71 definition must be included in part 70 so that it is clear that deviations will not always be violations. Even with that protection, the commenter argued that there will likely be de facto increased stringency through establishing indicator levels as enforceable requirements and thus there will be incentive to set trigger levels as loosely as possible.

Other commenters noted that EPA is encouraging sources to set indicator ranges significantly below actual emission limits or standards to promote good O & M practices, but that excursions from low indicator ranges do not indicate violation of either emission standards or permit terms. These commenters stated that excursions should therefore not have to be reported as deviations in annual compliance certifications unless the source's permit states that excursions are a permit violation. One commenter noted that this is analogous to getting a speeding ticket for traveling 54 mph in a 55 mph zone, or being issued a ticket when the speedometer is not functioning properly. The commenter argued that EPA should eliminate any aspects of the rule that would create the situation where a source is in compliance with originally permitted limits at all times during a reporting period, but is unable to certify continuous compliance with those limits. One commenter believed generally that indicator monitor excursions should not be considered immediately to be deviations of the permit, while another stated that the rule should state clearly that indicator range exceedances are to be used to trigger corrective action and not to establish violations.

Another commenter suggested that if a source has sufficient information to determine that an excursion does not constitute a violation of underlying emission limitations or standards, it should not be required to identify the excursion as a deviation or an exception to compliance in a compliance certification.

Certain commenters argued that the rule requires too much information to be included in the certification. One commenter argued that because excursions do not necessarily imply noncompliance, reporting every one does not make sense, and that the over reporting will make it difficult for the agencies to determine which sources are in fact likely to be violating applicable requirements. The commenter stated that, if a source is in

compliance, it should just be able to say so. Another commenter recommended that EPA allow sources to cross reference previously filed reports. Finally, a commenter added that excursions should not be construed or reported as deviations unless the source requests that the indicator range be an enforceable permit condition. The commenter suggested establishing a separate notification and reporting requirement for excursions.

Two commenters stated that the rule text should clearly state the owners and operators are not required to determine whether any exceedances or excursions constitute deviations or noncompliance. They also stated that the intent expressed in the preamble that a certification identifying deviations is not an admission of noncompliance must be reflected in the rule. One of the commenters added that the rule should not require sources to categorize both excursions and exceedances as deviations; doing so contradicts EPA's stated intent to leave room for states to interpret the term deviation. The commenter argued that requiring sources to indicate excursions as deviations is yet another way in which compliance obligations are being changed and enforcement opportunities created.

One environmental commenter argued that EPA had weakened the existing compliance certification language by only requiring a "statement" on compliance.

Response: Consistent with many of these comments, the final rule requires an owner or operator to classify excursions and exceedances as "possible exceptions to compliance" and not as "deviations" for purposes of part 70. For part 71, EPA has already developed a definition of "deviation." Today's rulemaking revises that definition to incorporate the concepts of excursions and exceedances and makes clear that those events are not necessarily violations. However, the Agency disagrees with suggestions that the rule not require reporting of all excursions or exceedances. The existence of an excursion or exceedance raises the possibility that a source has not met its applicable requirements, and thus an excursion or exceedance needs to be identified as a possible exception in the certification. This is true even where corrective action is taken and a reference test has not been run. As the CE rule made clear, noncompliance with emission standards can be shown by evidence other than reference tests.

The Agency notes that, as in the 1996 part 64 Draft, the final rule allows an owner or operator to cross-reference previous reports that identify the excursions or exceedances. Thus, this provision does not significantly affect the reporting burdens involved with certifying compliance. Of course, an owner or operator is always free to add any explanatory text to document that an identified excursion or exceedance did not in fact indicate a failure to meet an underlying applicable requirement. To provide for a simple certification process, however, the Agency has determined not to require such explanations for all identified exceedances or excursions. Sections I.C.5 and II.K.2, of the preamble to the final rule contain additional discussion of the compliance certification provisions.

EPA did not intend by adding the word "statement" to the requirement for a compliance certification to imply that anything less than a certification was required. EPA has therefore rephrased the provision to delete the word "statement."

Letter(s): American Gas Association (VI-D-154); ASARCO Incorporated (VI-D-187); BP Oil Company (VI-D-113); Chemical Manufacturers Association (VI-D-152); Cinergy Corp. (VI-D-141); Clean Air Implementation Project (VI-D-153); Coalition for Clean Air Implementation (VI-D-164); Colorado Association of Commerce and Industry (VI-D-182); DuPont Engineering (VI-D-127); Eastman Chemical Company (VI-D-173); Eli Lilly Company (VI-D-124); Exxon Company, USA (VI-D-135); Gas Processors Association (VI-D-163); Houston Lighting & Power Company (VI-D-228); Mobil Corporation (VI-D-115); Mobil Corporation (VI-D-248); Natural Resources Defense Council (VI-D-151); Niagara Mohawk (VI-D-168); Ohio Chamber of Commerce, et. al. (VI-D-160); PPG Industries, Inc. (VI-D-136); Rubber Manufacturers Association (VI-D-149); Southwestern Public Service Company (VI-D-224); Texas Title V Planning Committee (VI-D-188); The Society of the Plastics Industry, Inc. (VI-D-148); Utility Air Regulatory Group (VI-D-140); Virginia Power (VI-D-226)

Comment d: One commenter stated that EPA should indicate how deviations from indicator ranges will be reconciled with the actual operating conditions at a source. The commenter suggested that the rule indicate how to address situations where, due to the operating conditions at a source, a deviation from CAM plan parametric ranges does not indicate a violation of applicable standards. For example, implementation of a QIP to correct

a deviation in the exit gas temperature of a condenser used to control VOCs above the temperature specified in the CAM plan for control of VOCs may not indicate a violation if, at the time of the deviation, the VOC being controlled is of a relatively low volatility.

Response: The Agency believes that the commenter's suggestion is included in the final rule, as sources with deviations from indicator ranges are required to adjust those ranges, if they prove insufficient. In addition, specific conditions which preclude non-compliance, such as the use of materials with low volatility, should be considered and identified to the extent known in developing indicator ranges.

Letter(s): Pharmaceutical Research and Manufacturers of America (VI-D-217)

Comment e: Many industry commenters objected that the requirement that "any other material information" be identified in a compliance certification is flawed and should be deleted. Several commenters argued that the discussion of this requirement in the preamble is inconsistent because the preamble states that this requirement "merely" implements the statutory prohibition against knowing false statements, but no regulatory language is necessary to implement this self-effectuating provision. They argued that EPA should delete the Part 70 and Part 71 language which states that other material information may be required and rely on section 113(c)(2) alone. Commenters also noted that the preamble refers more generally to "information [that] potentially affects compliance status." This broad approach to the requirement may make it difficult for responsible officials to certify compliance with any confidence or certainty, according to some commenters. One commenter argued that this provision will also raise issues regarding its relationship to environmental audit policies.

Several commenters also stated that distinguishing whether information may be considered "material" or not will be difficult, and is often a disputable issue that is resolved only through administrative or judicial processes. They suggested that, to avoid disputes over this issue, a certification should be based solely on information that is required by applicable requirements. Two commenters also argued that compliance is properly determined only by the required compliance determination method, and that requiring sources to also determine compliance based on other "material" information changes the stringency of the standard

and is unmanageably vague and ambiguous. Finally, some commenters stated that the inability to determine what is "material" will be made impossible if EPA proceeds with a CE rule.

Commenters also argued that section 113(c)(2) is not a wide open requirement to identify and record/report information that someone could consider material. These commenters added that the legislative history documents that for criminal sanctions to apply under section 113(c)(2), the source must be on notice of the recordkeeping, information or monitoring requirements in question.

Response: The Agency disagrees with the commenters' suggestion to remove from the compliance certification provisions language that requires responsible officials to identify, if necessary, any other material information used in developing compliance certifications. The Agency believes these provisions are consistent with and help explain the existing duty under parts 70 and 71 for responsible officials to perform a reasonable inquiry concerning data that could impact the compliance certification. For example, in the Response to Comments Document for the Title V Operating Permits Program (see EPA Air Docket Item A-90-33-V-C-1) the Agency noted that having knowledge that a deviation occurred (either through required monitoring or self-auditing) and not reporting that information in a compliance certification would constitute criminal conduct (see p. 5-20 of that document). The Agency notes that this provision is limited to material information that the owner or operator is aware of -- information beyond required monitoring that has been specifically assessed in relation to how the information potentially affects compliance status. This requirement merely emphasizes the general prohibition in section 113(c)(2) of the Act on knowingly making a false certification or omitting material information and the general criminal section on submitting false information to the government codified at 18 USC 1001. The revised part 70 provision does not impose a duty on the owner or operator to assess every possible piece of information that may have some undetermined bearing on compliance. For the reasons stated in the CE rulemaking, EPA does not believe that requiring the certification to take into account other material information makes standards more stringent.

Letter(s): American Automobile Manufacturers Association (VI-D-157); BP Oil Company (VI-D-113); Can Manufacturers Institute (VI-D-181); Chemical

Manufacturers Association (VI-D-152); Chemical Manufacturers Association (VI-D-258); Clean Air Implementation Project (VI-D-153); Coalition for Clean Air Implementation (VI-D-164); Eastman Chemical Company (VI-D-173); General Electric Company (VI-D-156); Integrated Waste Services Association (VI-D-147); National Environmental Development Association (VI-D-169); Ohio Chamber of Commerce, et. al. (VI-D-160); South Carolina Electric & Gas Company (VI-D-116) Southern Company Services (VI-D-171); Southern California Gas Company (VI-D-222); Texas Natural Resource Conservation Commission (VI-D-189); The Society of the Plastics Industry, Inc. (VI-D-148); Utility Air Regulatory Group (VI-D-140); Utility Air Regulatory Group (VI-D-252); Virginia Power (VI-D-226); Wisconsin Electric Power Company (VI-D-130)

Comment f: Two commenters objected to the requirement to base certifications on "such other facts as the permitting authority may require." They stated that this grants unlimited discretion to permitting authorities, with no regard for the legal relevance of the information being requested, or the cost and time involved in gathering the information. These commenters also argued that sources should not have to submit certifications to both EPA and permitting authorities. They stated that the requirement to submit certifications to EPA is a waste of resources and imposes an unnecessary paperwork processing burden on EPA regional offices.

Another commenter suggested that the compliance certification should be changed to annual. Finally, one local government entity recommended allowing sources to specify only those permit terms or conditions for which compliance is in question and certify compliance with all other permit terms and conditions. The commenter stated that listing all permit conditions would be very burdensome for both sources and permitting authorities.

Response: The Agency notes that many of the commenters' suggestions refer to provisions that were promulgated as part of the original part 70 requirements on July 21, 1992, 57 FR 32250 and are not directly affected by the provisions which have been revised. The Agency believes that the rule changes with explicit language allowing cross-referencing and group treatment of pollutant-specific emissions units in compliance, as opposed to individual treatment of pollutant-specific emissions units with possible

exceptions to compliance or non-compliance, should satisfy one commenter's concerns.

Letter(s): American Automobile Manufacturers Association (VI-D-157); County Sanitation Districts of Los Angeles County (VI-D-232); General Electric Company (VI-D-156); Southern Company Services (VI-D-171)

Comment g: State and local agency associations supported the use of data other than reference test method data for compliance certification. They noted that using such other information will provide additional flexibility in ensuring that sources are complying with applicable emission limits. A state agency also supported statements made in the preamble and in the draft rule that establish that compliance determinations can be made using data other than compliance or reference test method data. An industry commenter, however, argued that CAM data should not be used for determining compliance with emissions standards. The commenter proposed eliminating the revisions to Part 70 which provide for the use of CAM data in compliance certifications.

Response: The Agency disagrees with the commenter's suggestion to remove provisions that would allow compliance certifications to use part 64 data. As mentioned above, the Agency believes these provisions are consistent with and help explain the existing duty under part 70 for responsible officials to perform a reasonable inquiry concerning data that could impact the compliance certification.

Letter(s): Coastal Corporation (VI-D-123); Georgia Department of Natural Resources (VI-D-193); STAPPA/ALAPCO (VI-D-179)

Comment h: A state agency recommended revising the proposed § 70.6(c)(5)(iii)(B) to refer to methods used to determine the "apparent compliance status." This would ensure that compliance certifications are consistent with the nature of the data generated by CAM plans.

Response: The Agency believes that this concern is adequately addressed by identifying excursions and exceedances as "possible exceptions."

Letter(s): Texas Natural Resource Conservation Committee (VI-D-189)

Section 12.3: Deviation Definition

Comment a: Several industry commenters argued that EPA should state that a "deviation is not always a violation" in the Part 70 revisions. They objected to the statement in the preamble that "deviation" is not defined in Part 70 to avoid constraining permitting authorities in their interpretation of the term. They argued that the whole point of CAM, as opposed to EM, is to de-link CAM monitoring data from compliance so that such data is not necessarily demonstrative of noncompliance. Therefore, they argued that making deviations, or a specific number of them, violations undermines the CAM goal of monitoring additional parameters at levels below regulatory limits. One group noted that adequate flexibility for states would be provided by a provision in Part 70 stating only that a deviation is not necessarily a violation and leaving out the rest of the language used in the Part 71 approach. Commenters concluded that, to assure that EPA's intent is carried out, the part 71 definition of deviation should be included in both part 70 and part 64.

One commenter objected to leaving the definition out of Part 70 in order to give states flexibility in interpreting the term. The commenter argued that it would be intolerable to have every permitting authority making different interpretations of what conduct violated the same laws; there is a crucial, overriding need for uniformity on this point.

Response: The final part 64 rule does not rely on the term "deviation" (see Comment c under section 12.2 (Part III), above). Therefore, the issues raised in these comments are no longer material for purposes of this rulemaking. As an aside, the Agency rejects one commenter's assertion "that the whole point of CAM...is to de-link CAM monitoring data from compliance." The primary purpose of part 64 is to provide a reasonable assurance of compliance with applicable requirements. Additionally, CAM monitoring is intended to provide owners and operators with data to make compliance certifications. Neither of these goals can be accomplished if CAM data are disassociated from compliance.

Letter(s): American Automobile Manufacturers Association (VI-D-157); ASARCO Incorporated (VI-D-187); Chemical Manufacturers Association (VI-D-152); Chevron Companies (VI-D-132); Clean Air Implementation Project (VI-D-153); Coalition for Clean Air Implementation (VI-D-164); Coastal

Corporation (VI-D-123); Colorado Association of Commerce and Industry (VI-D-182); Dow Chemical Company (VI-D-120); Eastman Chemical Company (VI-D-173); Eli Lilly Company (VI-D-124); Gas Processors Association (VI-D-163); General Electric Company (VI-D-156); Georgia Department of Natural Resources (VI-D-193); Mobil Oil Corporation (VI-D-248); National Environmental Development Association (VI-D-169) Texas Title V Planning Committee (VI-D-148); The Society of the Plastics Industry, Inc. (VI-D-148); UCAR Carbon Company, Inc. (VI-D-122)

Comment b: Some commenters argued that part 71 should not state that every 24 hours of a deviation is a new deviation. They stated that the Act already provides that a new violation occurs every 24 hours, and they saw no value in arbitrarily multiplying the number of non-violation deviations other than to make sources look bad. One commenter added that the identification of any exceedance or excursion for purposes of compliance certification should be based on the appropriate averaging period as specified in the applicable requirement and not based on a 24 hour time period.

Response : This provision is included as part of part 71 as promulgated on July 1, 1996, 61 FR 34202 and is retained in the definition adopted in today's rulemaking.

Letter(s): Chemical Manufacturers Association (VI-D-152); Eli Lilly Company (VI-D-124); Utility Air Regulatory Group (VI-D-140)

Comment c: A state agency recommended specific rule language to clarify that deviations are only indicators of compliance and should not be used as de facto compliance determination statements.

Other commenters recommended that the definition should not equate all excursions and exceedances with a deviation. One commenter noted that such an approach could have serious implications for recordkeeping/reporting burdens, while others recommended that the definition of "deviation" in § 71.6(a) (and any similar definitions added to §§ 70 and/or 64.1) be revised to establish that an excursion is only a deviation if the indicator range is an enforceable permit term. Finally, one

commenter noted that an excursion has no bearing on whether a deviation has occurred.

Response: The final rule does not equate excursions or exceedances with deviations for part 70 purposes; see further response under section 12.2 (Part III), above.

Letter(s): American Gas Association (VI-D-154); Coastal Corporation (VI-D-123); General Electric Company (VI-D-156); Texas Natural Resource Conservation Commission (VI-D-189); Utility Air Regulatory Group (VI-D-140); Virginia Power (VI-D-226)

Comment d: One commenter recommended that part 70 be revised to include the authority to excuse some excursions as is provided in § 71.6. The commenter stated that the two rules should be consistent on this point because otherwise states will not have the authority to do this under part 70.

Response: Part 64 does not establish excursions as necessarily constituting a violation of any requirement; thus there is no need to include any explicit provision stating that certain excursions are "excused."

Letter(s): Total Petroleum, Inc. (VI-D-190)

Section 13: General Statutory Issues

Comment a: Some commenters argued that the draft rule does not satisfy the statutory mandate for EPA to require "enhanced monitoring" of emissions at major stationary sources. A vendor association stated that "enhanced monitoring" must refer to no less than direct monitoring of emissions because section 114(a)(1) only permits owners and others to "keep records on control equipment parameters, production variables or other indirect data when direct monitoring of emissions is impractical." According to the commenter, since direct monitoring was in widespread use in 1990, it is difficult to imagine that "enhanced" monitoring could refer to anything less than direct monitoring. Public interest groups argued that the draft rule does not require monitoring that can be correlated with emissions standards, or compliance certifications that actually certify compliance. They also stated that the requirements for enhanced monitoring and compliance certification were intended to address the ongoing problem of the lack of reliable information on air emissions. They argued that, rather than implement the statute to promote reliable information that supports right to know and effective enforcement, the draft CAM approach provides poor information that will make a sham out of the compliance certification. The commenters concluded that the rule should be called the scam rule, not the CAM rule.

The vendor association stated that to have the minimum level of monitoring needed to meet the legislative intent of section 114(a)(3), EPA should withdraw the current CAM proposal and re-propose CAM as a rule requiring direct monitoring of emissions from major sources. Given the information EPA has already collected pursuant to the development of Part 64, the commenter argued that re-proposal and promulgation should be possible by the current July 1997 deadline or shortly thereafter. The association recommended, as an alternative, that major sources be required to directly monitor pollutant emissions only from emission points that exceed major source emission thresholds, as defined in sections 112, 182, 187, and 302 of the Clean Air Act. The association stated that, unlike CAM, direct monitoring is consistent with Vice President Gore's call to "[g]ive the EPA a way to measure the progress and then throw away the rule book altogether."

An environmental group also argued that part 64 monitoring must produce data capable of correlation to actual emissions. This commenter stated that CEMS and COMS must be used for this purpose where they are already required to be in place and parameter monitoring that is capable of correlation would be acceptable for other sources. Another commenter added that the CAM proposal does not satisfy the requirement in section 504 that alternative monitoring methods must "provide sufficiently reliable and timely information for determining compliance." The commenter stated that EPA has not proven that indicator ranges are sufficiently reliable to meet the statutory standard. Since EPA has provided no scientific basis for correlating monitored parameters with emission rates for most control devices, it has not demonstrated that a source which stays within established indicator ranges will be in compliance with applicable emission limits or standards.

The environmental group also argued that the rule does not meet the Act's requirement that SIPs include enforceable emission limitations. The group stated that section 110, which was included in the original Clean Air Act of 1970, provides that SIPs shall include enforceable emission limitations, requires monitoring and reporting of emissions, and provides that SIPs shall require states to correlate emission reports with emission limitations. According to the commenter, limitations are not enforceable unless it is possible to compare them with sources' actual emissions and this capability is not provided by the draft rule. The commenter concluded that the rule cannot meet the requirements of the 1990 Amendments, which were intended to improve the level of monitoring, if it does not even meet the requirements of the original Act.

Contrary to these arguments, some industry commenters stated that the CAM approach can satisfy the requirements of the Act. One commenter added that the proposed rule reasonably achieves the goal of meeting the statutory requirement to develop enhanced monitoring plans. Another noted that the approach of documenting good O&M, indicating excursions and taking corrective action fulfills the statute in a reasonable manner.

Response: The Agency disagrees that the final rule fails to satisfy the Act. As discussed in section I.C.3. of the preamble to the final rule, part 64 is intended to provide a reasonable means of supplementing existing regulatory provisions that are not consistent with the enhanced monitoring requirements of title VII of the 1990 Amendments to the Act. The EPA

believes that the CAM approach is a reasonable approach commensurate with this role. The Agency agrees with incorporating direct emissions and compliance monitoring where the technology is available and feasible, and promoting public disclosure of air pollution emissions information. However, the Agency does not believe that such a broad, expensive, and technically complex objective can be accomplished through a single rulemaking at this time. Not only would trying to impose such monitoring requirements across the board in the short term be technically unrealistic, doing so would put in jeopardy the possibility of advancing monitoring of existing emissions sources through part 70 operating permits program already in progress.

The Agency notes that current requirements for submission of emission statements prepared by owners of industrial air pollution sources continue independent of part 64 (such as statements required under section 182(a)(3) of the Act) and such statements will be based on the most currently available information, including new monitoring data produced under part 64.

The Agency firmly believes that continued proper operation and maintenance of process operations and air pollution controls demonstrated capable of achieving applicable standards is vital to ongoing compliance. By providing the necessary data and requiring appropriate corrective action, part 64 will result in owners and operators being more conscientious in the attention paid to the operation and maintenance of air pollution control equipment and practices than has been the case in the past. This approach has proven effective in reducing air pollution emissions and improving compliance performance in the implementation of many existing regulations with similar requirements. See also preamble section I.C.5. for further discussion of the use of part 64 data for purposes of part 70 compliance certifications.

EPA disagrees that the "enhanced monitoring" required by section 114(a)(3) must be direct emission monitoring because section 114(a)(1) specifies that keeping records on control equipment parameters is authorized "when direct monitoring of emissions is impractical." The cited provision in section 114(a)(1) is intended to broaden the scope of EPA's investigative power and there is no suggestion in the statute that Congress intended the term "enhanced monitoring" in section 114(a)(3) to be limited by the language in section 114(a)(1). Comments arguing that

CAM provides no correlation to emissions are responded to at length in section 6 of Part III of this response to comments document. Briefly, CAM does not require a statistical correlation between indicator levels of control equipment operation and emissions; however, CAM does require a demonstration based on, among other things, performance test data, that compliance with indicator levels will provide a reasonable assurance of compliance with emission standards. Thus, commenters are in error to claim that there will be no correlation between CAM monitoring and emissions.

EPA does not believe that section 110 somehow requires that “enhanced monitoring” under section 114(a)(3) must be directly correlated to emissions. Section 110(a)(1)(A) does require that the state plans include “enforceable” emission standards. However, it is certainly not clear that use of the term “enforceable” here as anything to do with monitoring much less “enhanced monitoring” under section 114(a)(3). Additionally, section 110(a)(2)(F) does specify that states must “correlate” emissions data that is collected with emissions limitations. Again, however, it is unclear how a requirement specifying that a state shall correlate collected emissions data with emissions standards relates to a separate requirement for “enhanced monitoring.” Perhaps most telling with regard to the relevance of section 110(a) to the meaning of section 114(a)(3) is that an industry commenter cites it as support for its argument that nothing is intended “enhanced monitoring” other than compliance certifications based on performance tests.

As to the assertion that EPA has not met the requirements in section 504(b), EPA would note that this rule is being promulgated under section 114 and not section 504(b). Nonetheless, EPA believes that CAM monitoring is designed to “provide sufficiently reliable and timely information for determining compliance.” Part 64 requires that the indicator levels for CAM monitoring be based performance test results and other compliance-related information. See also section 6 of this response to comments document.

Letter(s): American Lung Association et. al. (VI-D-238); Clean Air Implementation Project (VI-D-153); Clean Steel Coalition (VI-D-195); Institute of Clean Air Companies (VI-D-139); Natural Resources Defense Council (VI-D-151); Natural Resources Defense Council (VI-D-267 and 268); Pacific Gas

Transmission Company (VI-D-230); S. Fitzsimmons (VI-D-201); Sierra Club, Lone Star Chapter (VI-D-242); The Fertilizer Institute (VI-D-145)

Comment b: One industry commenter argued that the draft rule exceeds the statutory mandate of the Clean Air Act Amendments. The commenter argued that by making indicator ranges enforceable in and of themselves, the current CAM draft exceeds the original intent of the CAM program to better identify when corrective actions needed to be taken. The commenter also stated that it is also not clear that the control technologies which served as the basis for the original underlying emission limitations and standards can meet compliance with the shorter averaging periods necessary to satisfy the CAM rule. The CAM rule therefore creates new compliance obligations rather than serving as a vehicle to better achieve existing obligations, according to the commenter. Another commenter added that using CAM data and other information reported as indicators of a need for further investigation is all that is appropriate under Congress' intent to cure the Clean Air Act's general lack of ongoing monitoring of any kind.

Response: The final rule does not include the provision cited by the commenter concerning enforceable indicator ranges. In addition, nothing in part 64 affects the averaging period associated with underlying requirements. Thus, the Agency disagrees with these comments.

Letter(s): Can Manufacturers Institute (VI-D-181); Centerior Energy (VI-D-134)

Comment c: One commenter stated that the draft rule ignores Clean Air Act procedures for making changes in state Title V permit programs. The commenter stated that although the draft will require states to amend their Title V permit programs to implement part 64, the draft rule ignores the proper procedure set forth in the Act and EPA's own implementing regulations by which EPA may bring about such changes in state permit programs.

Response: The Agency disagrees and has provided a full response to this concern in responding to comments in Section 3.1.4 (Part III), above.

Letter(s): Marathon Oil Company (VI-D-185)

Comment d: Another commenter argued that section 114(a)(3) does not provide a legal basis for the CAM proposal. The commenter stated that section 114(a)(3) cannot be used to justify changes to Title V permit program requirements. Section 114(a)(3) is codified with statutory provisions on EPA's general information gathering authority and not in Title V, indicating no congressional intent to affect Title V requirements, according to the commenter. The commenter also argued that other statutory provisions show that section 114(a)(3) is not intended to impact Title V. The commenter noted that section 114(b) allows but does not require states to develop investigative powers and programs similar to those authorized for EPA whereas Title V programs are mandatory for states. The commenter also noted that section 114(a)(3) is to be implemented by rule, and not by permit, within two years while Title V rules are required in one year. The commenter went on to argue that section 114(a)(3) does not authorize EPA to develop new compliance methodologies, and that nothing in the limited legislative history suggests that Congress intended section 114(a)(3) to authorize a program as sweeping as CAM. The commenter stated that section 114 simply provides EPA with authority to compel performance testing according to the methods provided for in individual standards. Using section 114(a)(3) to redefine compliance determination methods and to require additional monitoring is contrary to section 114's long-understood meaning and cases, such as Portland Cement Ass'n v. Ruckelshaus, which establish a relationship between standards and associated compliance methods, according to the commenter. Finally, the commenter argued that Congress would not have refined SIP monitoring requirements under section 110(a)(2)(F) in 1990 if section 114(a)(3) could be used for wholesale redefinition of compliance methods. The commenter stated that the 1990 Amendments only adds the authority to request detailed compliance certifications based on the results of source testing and suggested that the certification of test results satisfies the "enhanced monitoring" portion of 114(a)(3).

The commenter went on to state that Title V also does not provide a legal basis for the CAM proposal because section 504(b) establishes that individual monitoring requirements must be developed by rule and not in the context of individual permits.

Response: The Agency rejects the commenter's cramped reading of section 114(a)(3). Congress was not overly prescriptive when it required EPA to mandate "enhanced monitoring" for major sources. Accordingly, a wide

range of monitoring might well qualify as "enhanced" including increased performance testing or an across-the-board requirement for continuous emission monitors. EPA believes that part 64 represents a reasonable, middle course to fulfilling the statutory requirement in section 114(a)(3) that the Agency promulgate rules on enhanced monitoring for all major stationary sources. The commenter's argument regarding the implied meaning of Congress' amendment of section 110(a)(2)(F) for section 114(a)(3) is nothing more than speculation. It certainly is not controlling on how section 114(a)(3) must be implemented.

EPA also rejects the assertion that section 114(a)(3) must be implemented by rule and cannot be implemented through the Title V permit program. The part 64 requirements are established by rule as required by section 114(a)(3), although the particular monitoring used to satisfy the part 64 requirements will be established through the permit process. This is consistent with the statutory language which requires EPA to "promulgate rules to provide guidance and to implement this paragraph . . ." (emphasis added). In addition, a Senate Committee Report on this provision stated that this "new authority will be implemented by EPA through regulations or implementation plan and permit program requirements . . ." (See Senate Committee Report 101-228, p. 368 (1989).) Both the statutory language and this legislative history indicate that it is appropriate for EPA to promulgate a rule containing general criteria requirements implemented through the permit process.

In addition, the Agency disagrees with the commenter's assertions concerning section 504(b). Section 504(b) and section 114 are separate provisions addressing monitoring. If section 504(b) is read as a limitation on section 114, much of section 114's broad authorization to EPA would be read out of the statute.

Contrary to the commenter's suggestion, part 64 does not redefine compliance determination methods, as the specified compliance test method for a particular standard remains as the benchmark for establishing compliance with that standard. The part 64 rulemaking merely adds monitoring requirements for particular types of sources and emissions units. For the same reason, part 64 also does not change title V permit program requirements because the requirements in part 64 are independently applicable standards.

Letter(s): Texas Title V Planning Committee (VI-D-188)

Section 14: Enforcement Concerns

Section 14.1: Effect on Existing Standards

Comment a: A number of commenters argued that part 64 would unlawfully increase the stringency of existing emission standards. Several commenters stated that the focus of CAM has shifted from its original concept of creating a monitoring regime to ensure proper operation and maintenance of emissions control devices in accordance with good engineering practices to imposing a requirement of determining continuous compliance with numerical emission limits. These commenters recommended that EPA amend the proposed rule to return to the original focus of the CAM proposal. Some commenters pointed out that because many emission limitations or standards were established based on limited reference method test data, the nature of the reference method test, the frequency of testing, and the variability of operations were taken into account in developing the standards. Commenters asserted that changes in the method of compliance can affect a source's ability to comply with limits. Also, commenters stated that it is highly probable that numerical limits will be exceeded 5-10 percent of the time by a unit that is properly operated and maintained. One commenter added that regardless of whether it was always intended that standards be complied with 100 percent of the time, as a matter of environmental policy, if CAM is ever to help get a handle on inherent process/control variability, it must reward sources for efforts to record and respond to such occurrences rather than penalizing them. Another commenter stated that EPA's attempt to link historical compliance practices based on a single numerical emission limit with practices relating to the "good operation and maintenance" of pollution control equipment in fact changes the standard of compliance for existing emission limits.

Some commenters argued that EPA must comply with the requirements of sections 110, 111, 112, and 307 of the Act if it wants to increase the stringency of existing emission standards. These commenters also stated that it is unlawful for the Agency to use CAM as a back door to increase the stringency of existing standards. Other commenters asserted that increasing the stringency of existing standards would include any changes to the existing monitoring requirements, even if not used to determine compliance, but stated that the concern is even greater if compliance determination issues (such as test methods or averaging

times) will be impacted. One commenter stated that many standards were developed with only limited information, and the new monitoring under CAM may detect deficiencies not contemplated when the standard was originally set. The commenter added that the ability to comment effectively on these issues requires rule by rule revisions. Some commenters cited to the Ajax paper included in the docket and various court decisions, including Amoco v. EPA, Portland Cement, and Donner Hanna, to document how changing compliance-related procedures can impermissibly increase the stringency of a standard.

Commenters also argued that specific aspects of the CAM proposal would increase the stringency of existing standards. One commenter asserted that the draft rule subjects too many emission units to Subpart B requirements, and that the draft rule encourages States to impose Subpart B requirements on Subpart C sources and to establish indicator ranges as enforceable limits. This commenter also stated that the draft rule turns QIPs into liabilities and fails to provide a shield from enforcement where a source fully meets its obligations under CAM. Taken together, the commenter concluded, these features of the CAM rule demonstrate EPA's intent to use CAM and the related credible evidence rule to increase the stringency of existing emission standards.

Another commenter stated that the combined effect of the following aspects of the draft rule lead to increased stringency: (1) the ability of States to impose enforceable indicator ranges; (2) the use of a second QIP as a violation; (3) the requirement that indicator ranges be set at levels that assure that emissions are always maintained below applicable requirements; (4) the lack of a CAM shield; and (5) the ability to bootstrap State-only monitoring requirements into federal requirements under § 64.9(d). (Note: The details of these comments are included in the sections specifically addressing these issues.) Another commenter noted concerns about the averaging times associated with monitoring and standards, the fact that compliance testing is prescribed although it does not establish the range over which an indicator might vary while the unit is in compliance, and lack of a need for monitoring at certain units.

Some commenters raised objections to the draft rule provisions addressing quality improvement plans (QIPs). A commenter stated that the provisions of the rule that make the second trigger of a QIP an enforceable violation makes standards more stringent to the extent that

the indicator range being monitored is tighter than the relevant limitation or standard. Two commenters stated that the stringency problem is compounded by the 5 percent QIP trigger, since standards may have been set with an expectation of exceedances 5 or 10 percent of the time based on annual testing.

Some commenters noted additional factors that may result in increased stringency: (1) the rule provides States with discretion to consider deviations to be violations; (2) all deviations must be included as "exceptions" to compliance in the certification, even if they are excused; (3) the rule requires many new enforceable requirements related to CAM to be included in permits; (4) the rule provides States with discretion, and even encourages them to make indicator ranges enforceable permit terms; and (5) most importantly, the decision to proceed with the credible evidence rule affects CAM's relationship to documenting compliance. (See Section 14.2, below, for further comments on the CAM/credible evidence relationship.) In supplementary comments following the promulgation of the CE rule, one of the commenters reiterated its concerns regarding changes in the way compliance is determined.

One commenter identified three possible solutions to avoid the increased stringency problem. First, EPA could revise the applicable emission limits to move from a periodic compliance demonstration to a continuous compliance demonstration through appropriate notice and comment rulemaking, or at least provide a period of years to allow for petitions for reconsideration before the credible evidence rule would become effective. Second, the Agency could undertake a generic rulemaking to establish a 30 day compliance period as a general presumptive averaging period. Third, the Agency could provide explicitly that CAM data cannot be used as credible evidence, and allow owners or operators to opt in to CAM to obtain this shield.

Response: The Agency disagrees that the final part 64 rule will affect the stringency of any existing standards. Part 64 contains independent applicable monitoring requirements promulgated under the authority of section 114 and other provisions of the Act. Part 64 does not amend any existing emission standard. Rather, part 64 provides for the collection of data relevant to compliance so that sources may make the required compliance certifications. The scope of the compliance obligation will continue to be defined by the emission standard. To the extent part 64

monitoring data pertain to periods when compliance is not required by the emission standard, those data cannot be used to prove noncompliance with the standard.

Part 64 requires monitoring to provide a reasonable assurance of compliance with existing requirements; it does not change the method established in a particular standard as the compliance test method for that standard. The reasonable assurance is provided by maintaining key parameters within operating ranges that reflect proper operation and maintenance of the control device, in accordance with applicable design properties, for minimizing emissions at least to the levels required to achieve compliance. The final rule generally requires the ranges to be set at least in part based on performance test data to establish an appropriate baseline for the specific unit; the rule does not contemplate a statistical correlation of emissions and parameters across the whole range of potential emissions. See Section II.D.2. of the Final Rule Preamble for further discussion. To the extent the commenters are claiming that the use of any data other than performance test data to determine compliance modifies the compliance obligation, the commenters are attacking the credible evidence rulemaking not this one. As noted below, EPA disagrees with these criticisms of the CE rule.

In addition, the final rule contains other changes from the 1996 part 64 Draft that address the comments. First, the final rule does not discuss the State's independent authority to require that indicator ranges be established as enforceable permit terms. A State is always free to establish that type of requirement using its independent authority to do so. Second, the final rule does not establish that a second QIP is an automatic permit violation, and does not include a required 5 percent trigger for a QIP. Third, the use of the term "deviation" has been deleted and the final rule clarifies that part 64 excursions are to be reported as "possible exceptions" to compliance in a compliance certification. Fourth, the applicability provisions have been clarified and narrowed to focus only on units with control devices. Fifth, the provision concerning the use of State-only monitoring in § 64.9(d) of the 1996 part 64 Draft is no longer applicable with the removal of subpart C. These changes also respond to many of the comments.

There are several specific comments with which the Agency disagrees. First, the Agency disagrees that the promulgation of the credible evidence

rulemaking will in turn result in part 64 increasing the stringency of existing emission limits. The Agency's reasoning for why the stringency of a standard is not affected by the use of data other than specified reference method test data to prove compliance or non-compliance is discussed at length in the preamble to the credible evidence rulemaking (see 62 FR 8314, February 24, 1997) and in the response to comment document for that rulemaking (see Docket Item A-91-52-V-C-2).

Second, the Agency disagrees that because part 64 will add more conditions to a permit, part 64 will make existing standards more stringent. Part 64 is an independently applicable requirement promulgated pursuant to section 114 of the Act as well as other statutory provisions. As such, it is expected that a part 70 permit will include monitoring conditions that implement part 64 which may be in addition to the permittee's existing applicable monitoring requirements. Third, EPA disagrees with a concept of a CAM enforcement shield as discussed in Section 14.5 (Part III), below. Finally, the Agency disagrees with the argument that part 64 monitoring simply by adding more monitoring has increased the stringency of the underlying standards. The Agency has previously used its section 114 authority, even before the express enhanced monitoring authority under the 1990 Amendments, to require additional monitoring for an NSPS standard. (See 53 FR 50354, 50360, December 14, 1988, adding monitoring retroactively for Portland cement plants affected by 40 CFR Part 60, Subpart F.)

Because the Agency does not believe that part 64 will affect the stringency of existing requirements, no response is necessary to the suggestions for how to avoid this concern.

Letter(s): Alyeska Pipeline Service Company (VI-D-126); American Petroleum Institute (VI-D-146); Arizona Mining Association (VI-D-150); BP Oil Company (VI-D-113); Can Manufacturers Institute (VI-D-181); Chemical Manufacturers Association (VI-D-152); Cinergy Corp. (VI-D-141); CITGO Petroleum Corporation (VI-D-172); Clean Air Implementation Project (VI-D-153); Coalition for Clean Air Implementation (VI-D-164); Colorado Association of Commerce and Industry (VI-D- 182); DuPont Engineering (VI-D-127); Eastman Chemical Company (VI-D-173); Independent Liquid Terminals Association (VI-D-178); Kennecott Corporation (VI-D-119); Marathon Oil Company (VI-D-185); Mobil Corporation (VI-D-115); Mobil Corporation (VI-D-248); National Environmental Development Association

(VI-D-169); Pennzoil Company (VI-D-133); Rubber Manufacturers Association (VI-D-149); South Carolina Electric & Gas Company (VI-D-116); Southern Company Services (VI-D-171); Specialty Steel Industry of North America (VI-D-143); Steel Manufacturers Association (SMA) (VI-D-144); Texas Utilities Services, Inc. (VI-D-121); The Society of the Plastics Industry, Inc. (VI-D-148); Utility Air Regulatory Group (VI-D-140); Wisconsin Electric Power Company (VI-D-130)

Comment b: Two commenters expressed concern about a specific emission limit whose stringency would be increased by CAM. These commenters stated that the NSPS for Electric Arc Furnaces and Argon-Oxygen Decarburization vessels (40 CFR Part 60, Subparts AA and AAa) set opacity standards at 3 percent to correlate with NSPS particulate standards of 0.0052 gr/dscf. The commenters stated that this standard essentially requires no visible emissions, complied with through Method 9 testing. The commenters note that some electric arc furnace facilities are also required to install CEMS or COMS, and that under the current proposal, such facilities would have to use these systems to comply with CAM and establish an indicator range for COMS monitoring. They stated that this would be difficult because the 3 percent "no visible emissions" standard does not have room for an indicator range to be established below the standard. In addition, the commenters pointed out that EPA has determined that all COMS have an inherent potential positive bias of 7.5 percent opacity, meaning that a source using a COMS could report a 7.5 percent opacity reading when the actual opacity was zero. The commenters explained that under CAM, this false reading could have to be reported as a deviation in a compliance certification, could trigger a QIP, and could be used as credible evidence of an emissions violation where there was no actual violation.

Response: To address this comment, the final rule clarifies that an indicator range for a COMS may be the same as the opacity standard established for a pollutant-specific emissions unit where appropriate for meeting the general criteria in § 64.3(a)(2). The Agency does not believe this rulemaking is an appropriate forum for resolving commenter's claims regarding potential COMS bias, and thus will not address the substance of the commenters' claim that COMS generally have a potential high bias of 7.5 percent opacity. However, the Agency does note that the issue of any potential high bias in readings from a COMS (or any other monitoring

instrument) will be taken into account in evaluating monitoring reports and compliance certifications, and determining what follow-up actions, if any, use appropriate (including the implementation of a QIP). It does not, however, affect the owner or operator's obligations to report measurements above the opacity standard (and part 64 indicator range, if applicable) as exceedances/excursions, even if the measurements are within the potential bias.

Letter(s): Specialty Steel Industry of North America (VI-D-143); Steel Manufacturers Association (SMA) (VI-D-144)

Section 14.2 Relationship of CAM and Credible Evidence (CE) Rule

Comment a: A number of comments addressed the relationship between CAM and the credible evidence rule, stating that the impact of the CAM rule on enforcement concerns cannot be fully determined without consideration of the interaction of CAM with the proposed credible evidence regulations. Some commenters stated that the preamble to the draft CAM rule and the discussion at the September 10, 1996 stakeholder meeting demonstrate that the CAM rule and the credible evidence rule are inextricably connected.

Commenters also recommended that, because one rule cannot be evaluated without considering the other, EPA should issue a new proposal that combines both rules for public comment. Some commenters stated that separating issues under the CE rule and CAM forces a bifurcated and inefficient consideration of what are, in fact, linked elements. Two other commenters also expressed concern about the omission of the "credible evidence" portion of the proposal under the CAM rule. The commenters stated that they recognize that these concerns may be allayed by the imminent publication of the CE rule as a separate document, but one commenter added that EPA should better explain its enforcement strategy under CE and CAM and in the context of the definition of "reasonable assurance of compliance." One commenter added that proposing and beginning implementation of CAM separate from the credible evidence rule will result in the misinterpretation of CAM, confusion among the regulated community and permit writers, misguided and overly stringent monitoring proposals, and counterproductive

challenges to the program's contents. The commenter concluded that both programs will suffer from separate promulgation.

Response: In general, the above comments all state that the CE Revisions and the CAM proposal are inextricably connected, impact each other, and should be proposed together in order for meaningful public comment from interested stakeholders. The Agency reviewed these comments but decided to proceed with the CE rulemaking separately from this rulemaking for several reasons. First, the Agency decided to promulgate the CE Revisions separate from part 64 because the two programs are different in scope. The CE Revisions are not limited to part 64 data or information collected pursuant to a part 70 permit generally. Other types of CE could include information from monitoring that is not required by regulation (such as monitoring conducted pursuant to a consent agreement or a specific section 114 request) or information from inspections by the permitting authority. In addition, the CE Revisions affect all sources regulated by 40 CFR parts 51, 52, 60, and 61, not just sources who will be covered by 40 CFR part 64. Thus, although sources covered by this rulemaking will be affected by the CE Revisions, both the sources covered by this rulemaking and the data generated by this rulemaking are a subset of the sources and potential credible evidence addressed in the CE Revisions. Therefore, it was appropriate for the Agency to promulgate these two rulemakings separately. See 62 FR 8314 for a discussion of the scope of the CE Revisions.

Second, the CE Revisions and this rulemaking did not need to be promulgated together because these regulations have different statutory bases. The Agency promulgated the CE Revisions based primarily on section 113(a) of the Act, which authorizes EPA to bring an administrative, civil or criminal action "on the basis of any information available to the Administrator." See 62 FR at 8320-23. The part 64 regulations, however, respond to the statutory mandates of the CAA Amendments of 1990, including but not limited to section 114(a)(3). Therefore, the statutory basis for these two rules are different, supporting their separate promulgation.

Finally, the Agency believes that there was sufficient opportunity for all interested parties to comment on any perceived relationship or any substantive issues regarding the proposed credible evidence revisions and the CAM proposal before the promulgation of the CE Revisions in

February, 1997, and the finalization of part 64. The Agency released a public draft of the CAM approach in September, 1995, and then conducted a public meeting in April, 1996, on the credible evidence revisions. The Agency accepted public comments on the credible evidence rulemaking and the CAM proposal between September, 1995, and the promulgation of the CE Revisions. For example, when EPA released the 1996 CAM draft it specifically asked commenters to assume that the CE revisions would be promulgated. Thus, all interested parties had the opportunity to comment on the two proposals and the Agency received numerous comments on this topic before the CE Revisions were promulgated.

In addition, there was also ample opportunity for public comment on any perceived relationship after promulgation of the CE Revisions and before the finalization of part 64. The Agency released a public draft of the CAM approach in August, 1996, and held several public meetings regarding the proposal. The Agency also reopened the comment period on Part 64 on April 25, 1997, (62 FR 20147) to allow for comments on the relationship between part 64 and the CE Revisions. Thus, all interested stakeholders had the opportunity to comment on the relationship between part 64 and the CE Revisions before each of these rulemakings were promulgated.

Letter(s): American Petroleum Institute (VI-D-146); American Gas Association (VI-D-154); American Electric Power (VI-D-129); American Public Power Association (VI-D-158); Centerior Energy (VI-D-134); Chemical Manufacturers Association (VI-D-152); Dow Chemical Company (VI-D-120); Eli Lilly Company (VI-D-124); Enron Operations Corp. (VI-D-235); State of Illinois EPA (VI-D-183); Independent Liquid Terminals Association (VI-D-178); Louisiana Mid-Continent Oil and Gas Association (VI-D-184); Mobil Corporation (VI-D-115); Natural Gas Pipeline Company of America (VI-D-118); Ohio Chamber of Commerce, et. al. (VI-D-160); Pennzoil Company (VI-D-133); Questar Corporation (VI-D-220); Southern California Gas Company (VI-D-222); Specialty Steel Industry of North America (VI-D-143); Steel Manufacturers Association (SMA) (VI-D-144); Tennessee Valley Authority (VI-D-162); Texas Natural Resource Conservation Commission (VI-D-189); The Society of the Plastics Industry, Inc. (VI-D-148); Wellman, Inc. (VI-D-237)

Comment b: Two commenters stated that the separate promulgation of the credible evidence rule and CAM results from the settlement in the Sierra Club v. Browner litigation. The commenters argued that the settlement is procedurally flawed because it was not properly noticed for comment pursuant to section 113(g) of the Act, and therefore, the deadlines established in that settlement are unenforceable.

Response: Although the timing of the promulgation of the CE Revisions and part 64 may result from the settlement in Sierra Club v. Browner, the Agency promulgated the two regulations separately because they have different scopes and justifications as discussed above.

Letter(s): Cinergy Corp. (VI-D-141); Ohio Chamber of Commerce, et. al. (VI-D-160)

Comment c: Several commenters recommended that EPA at least reconsider its decision to finalize the credible evidence rule without providing an opportunity for submitting meaningful comments on the interaction of credible evidence and CAM. One commenter added that without the benefit of simultaneously reviewing the draft CAM and credible evidence rules, it is impossible to effectively determine the impacts of either rule. Commenters also stated that States and other affected parties also cannot comment appropriately on the CAM rule. For example, one commenter stated, it is unclear how EPA will reconcile indicator range excursions with source operating conditions in the context of using the excursions as credible evidence. As another example, commenters stated that it is not clear if EPA or a permitting authority could use an excursion from an indicator range, which is an enforceable permit term, as evidence in an enforcement action under the credible evidence rule where there has been no exceedance of an emission limit or other applicable requirement. One commenter suggested that at the very least, the CAM public comment period should be extended two weeks beyond the release of the final credible evidence revisions to allow comment on the enforcement of CAM.

Response: The Agency believes that both the 1996 part 64 Draft and the preamble of the CE Revisions published in the FR discussed in some detail the interaction of CE and CAM and the Agency's enforcement policies with respect to these regulations. Therefore, stakeholders were on notice of the Agency's views on how these two rules relate to one another before

the Agency reopened the comment period on part 64 on April 25, 1997 (62 FR 20147) to allow for comments on the relationship of part 64 and the recently promulgated credible evidence rule (62 FR 8314, February 24, 1997). The comments submitted during the reopened comment period on this relationship are summarized and responded to elsewhere in this document.

Letter(s): American Automobile Manufacturers Association (VI-D-157); Chevron Companies (VI-D-132); Cinergy Corp. (VI-D-141); Clean Air Implementation Project (VI-D-153); Exxon Company, USA (VI-D-135); Mobil Corporation (VI-D-115); Natural Gas Pipeline Company of America (VI-D-118); NorAm Gas Transmission Company (VI-D-142); Ohio Chamber of Commerce, et. al. (VI-D-160); Pharmaceutical Research and Manufacturers of America (VI-D-217); Southern California Gas Company (VI-D-222); Virginia Power (VI-D-226)

Comment d: Some commenters recommended that the CAM rule expressly provide that information generated under CAM plans is not credible evidence for purposes of establishing a violation. Two commenters stated that EPA should prevent the use of CAM data for enforcement actions or citizen suits unless the data demonstrates a violation of permit conditions. Two commenters explained that for parameter excursions to prove an emission limit violation the monitored parameter must be directly related to the emission limit and the emission limit must have applied at the operating conditions at which the excursion occurred. One commenter noted that the CAM proposal states that, under the CE rule, EPA or the owner or operator will have the burden of proof that a violation has or has not occurred based on adequate information to support a predicted outcome of a compliance test. The commenter expressed concern that where "adequate information" is lacking the owner or operator will be required or forced to perform a compliance test to defend its position. Other commenters stated that using CAM data to indicate a need for testing would be appropriate while using the same data to directly prove a violation would not be.

A commenter expressed concern about the tremendous increase in the amount of monitoring and recordkeeping that will be required by the CAM rule where the commenter lacks knowledge of how EPA will use this

information to determine if enforcement actions are needed under the CE rule.

Response: Complete compliance with an approved part 64 monitoring plan does not shield a source from enforcement actions for violations of applicable requirements of the Act if credible evidence proves violations of applicable emission limitations or standards. EPA expects that a unit that is operating within appropriately established indicator ranges as part of approved monitoring will, in fact, be in compliance with its applicable limits. Part 64 does not prohibit the Agency, however, from undertaking enforcement where appropriate (such as cases where the part 64 indicator ranges may have been set improperly and other data such as information collected during an inspection provides clear evidence that enforcement action is warranted).

If a party (EPA, a state or local agency, or public citizens) brings an enforcement action to enforce applicable standards under the Act for a source covered by part 64, the party may be able to use CAM information as credible evidence of a violation if the credible evidence satisfies the criteria set forth in the CE Revisions -- that the evidence is relevant to whether the source would have been in compliance with applicable requirements if the appropriate performance or compliance test had been performed.

Letter(s): American Gas Association (VI-D-154); American Automobile Manufacturers Association (VI-D-157); Association of Battery Recyclers (VI-D-155); Chemical Manufacturers Association (VI-D-258); Colorado Association of Commerce and Industry (VI-D-182); Coastal Corporation (VI-D-271); Hawaiian Electric Company, Inc. (VI-D-246); Occidental Chemical Corporation (VI-D-261); Pharmaceutical Research and Manufacturers of America (VI-D-217); Utility Air Regulatory Group (VI-D-252); Wellman, Inc. (VI-D-237)

Comment e: Several commenters stated that the proposal to use information generated by CAM monitoring as credible evidence to demonstrate the existence of a violation is legally unfounded and would increase the stringency of many standards. Some commenters also stated that the credible evidence proposal, together with defining all CAM exceedances and excursions as deviations, improperly changes the focus of CAM and

raises the same stringency problems as the enhanced monitoring proposal. A commenter stated that minor improvements in the CAM rule give little comfort to the regulated community in light of the CE rule's unauthorized alteration of underlying standards.

Two commenters argued that because CAM has the potential to be used as credible evidence, CAM would increase the stringency of underlying rules by fundamentally altering the compliance determination procedures established in those rules. The commenters stated that a numerical emission limit cannot be divorced from the methods of determining compliance, and included several references to support this position. The commenters also stated that because of the credible evidence rule, the draft CAM rule would impose continuous compliance determination methods on sources that are currently only subject to periodic compliance testing. This type of change requires formal rulemaking for the applicable standard being affected. In addition, the use of CAM data for certifying compliance in light of the credible evidence rule will create substantial uncertainty for the certification program and improperly expose managers to potential liability on inconclusive information.

A commenter stated that the proposed CAM and CE rules will result in increased stringency of emission standards, increased compliance costs and administrative burdens, greater uncertainty regarding what constitutes compliance, and increased liability regarding enforcement actions and citizen suits. The commenter noted that these burdens will acutely affect utilities operating in areas of the country with already tightened emission standards like California and the northeast. Another commenter added that these increased costs are particularly unwarranted in attainment areas.

Response: The above comments all claim that the combination of part 64 with the CE rule will increase the stringency of emission limitations because information generated under part 64 could be used for enforcement of emission violations. The Agency disagrees with these comments because the CE rule revisions are evidentiary rules that do not affect any underlying emission standards. As stated in the final preamble to the CE rulemaking, the revisions do not increase the stringency of any applicable requirement because "they maintain the focus of the compliance determination on whether or not the appropriate reference test would have shown a violation." 62 FR at 8323. Monitoring under part 64 will

provide more data regarding compliance with emission standards; however, the collection of more compliance-related data has no effect on the stringency of the emission standard. The EPA also disagrees with commenters' assertion that continuous compliance is not required for many emission standards. Under the Act, its regulations, and the case law, a source's compliance with emission limitations must be continuous (consistent with any averaging times) except where a particular emission standard specifically provides for periods of noncompliance. For a more detailed explanation of EPA's position that the CE revisions do not increase the stringency of emission standards, see 62 FR at 8323-8327.

Letters: American Public Power Association (VI-D-158); BP Oil Company (VI-D-113); Colorado Association of Commerce and Industry (VI-D-182); Council of Industrial Boiler Operators (VI-D-263); Hawaiian Electric Company, Inc. (VI-D-246); Independent Liquid Terminals Association (VI-D-178); Mobil Corporation (VI-D-115); Ohio Chamber of Commerce, et. al. (VI-D-160); Rubber Manufacturers Association (VI-D-149); South Carolina Electric & Gas Company (VI-D-116); Specialty Steel Industry of North America (VI-D-143); Steel Manufacturers Association (SMA) (VI-D-144); Utility Air Regulatory Group (VI-D-252); Utility Air Regulatory Group (VI-D-140)

Comment f: Another commenter noted that EPA has indicated that credible evidence generated by part 64 may not by itself be sufficient to prove a violation of an emission standard. The commenter expressed support for this statement. As an illustration, the commenter stated that when a parameter goes outside a range, it does not demonstrate noncompliance; it means only that compliance is not demonstrated, even though the unit may actually be in compliance. The commenter expressed a desire to see the same position adopted in the credible evidence rulemaking, and noted that it is not really possible to separate the two rulemakings as EPA desires.

Response: The commenter's statement that information generated by part 64 may not by itself be sufficient to prove a violation of an emission standard is correct. As stated by the Agency in the preamble to the final rule, while staying within appropriately established indicator ranges gives a reasonable assurance of compliance, excursions from a source's indicator ranges does not necessarily indicate noncompliance. The Agency may

investigate such excursions for possible violations and may use any credible evidence, which may include part 64 information, to prove any violation of an emission standard.

Letter(s): Dow Chemical Company (VI-D-120)

Comment g: An environmental organization argued that the 1996 part 64 Draft fails to do what Congress intended since it does not require monitoring that will produce data that can be considered credible evidence of emission limit violations.

Response: Although the final part 64 does not require monitoring that will produce data statistically correlated to emission limitations, the Agency believes that the final part 64 does comply with section 114(a)(3)'s requirements concerning enhanced monitoring and compliance certification. In addition, information collected under part 64 may, in many circumstances, constitute credible evidence on the issue of whether a source is complying with emission limitations.

Letter(s): Natural Resources Defense Council (VI-D-244)

Comment h: Commenters requested EPA to clarify if the intent of part 64 is to encourage good maintenance of air pollution control equipment or to use monitoring data directly for enforcement purposes. If the latter, one commenter stated, EPA should propose the CAM and CE rules together. Another commenter added that using CAM information pursuant to the credible evidence rule would result in an "un-level playing field" since different sources subject to the same standard will have different methods of demonstrating compliance. This commenter stated that this use of CAM information is unfair because it converts CAM from a rule that facilitates compliance through the generation of information indicative of compliance to a rule that facilitates enforcement.

Response: As stated in the final preamble to part 64, the purpose of this rule is to document continued operation of the control measures within ranges of specified indicators of performance that are designed to provide a reasonable assurance of compliance with all applicable requirements. Thus, the purpose of this rule is facilitate compliance with applicable

requirements not to specifically facilitate enforcement. This does not mean, however, that the information obtained from part 64 cannot be used for enforcement purposes if it is credible evidence of a source's noncompliance with applicable requirements.

Letter(s): Integrated Waste Services Association (VI-D-147); Pharmaceutical Research and Manufacturers of America (VI-D-217); Texas Natural Resource Conservation Commission (VI-D-256)

Comment i: One commenter stated that credible evidence should apply to all of the monitoring requirements included by a State in a Title V permit, since any requirements would be based on either State requirements or CAM requirements and would therefore be within the realm of the CAM rule and EPA's intent to treat information generated by CAM monitoring as credible evidence.

Response: The credible evidence rule does apply to any monitoring included in the permit as well as any other information that may become available.

Letter(s): State of Illinois EPA (VI-D-183)

Comment j: One commenter stated that CAM data should be understood to be fairly indicative of the potential credible evidence available to be used in compliance determinations. Likewise, compliance with a CAM plan should be considered compliance with the underlying emission limits, thereby providing a "CAM shield."

Response: The Agency agrees that part 64 data will be fairly indicative of the potential credible evidence available because it will encompass much of the monitoring contained in a part 70 permit. However, the extent to which part 64 data will constitute sufficiently credible evidence to prove compliance or non-compliance in an enforcement action will require a case-by-case evaluation. Finally, see Section I.E. of the preamble to the final rule for a discussion of why EPA disagrees with the concept of an enforcement shield in the context of part 64.

Letter(s): American Municipal Power - Ohio (VI-D-159)

Section 14.3: Purpose of CAM and its Role in Enforcement

Comment a: Several commenters argued that the draft proposal reflects a shift toward a more enforcement-oriented approach for CAM. Some commenters stated that the CAM rule, contrary to its stated intent, creates many enforcement issues. One commenter expressed concern that the emphasis of the CAM rule had shifted from compliance assurance to creation of enforcement opportunities and that enforcement actions may not be limited to situations where there is real, significant noncompliance. A commenter explained that bad actors will still hide their deeds from the agency while those acting in good faith will now be subjected to extensive review of huge amounts of data. Commenters also stated that the original approach held out the opportunity for a truly reinvented, common sense approach, but the 1996 part 64 draft appeared to favor the traditional, command and control, enforcement oriented approach. Another commenter recommended that EPA use CAM to provide a positive inducement for compliance, rather than focusing on the ability to punish sources that are attempting to meet extremely difficult and sometimes impossible compliance requirements.

Some commenters stated that when CAM was originally devised, it was based on the idea that the interests of all stakeholders would be best served by a system that provided a reasonable assurance of compliance through monitoring that was indicative of compliance. According to these commenters, the revised CAM draft moved back to the enforcement orientation of the proposed EM rule and subjected sources to multiple new enforceable requirements related to the development and implementation of CAM plans. Commenters noted several examples: (1) the ability of permitting authorities to make parametric levels independently enforceable; (2) implementation of a QIP more than once during a permit term constituting a violation of CAM; (3) omission of the draft "deviation" definition in part 70 would allow permitting authorities to make deviations new, separately enforceable requirements; (4) requiring numerous CAM plan elements to be included in Part 70 permits as enforceable requirements; (5) CAM development and implementation requirements constituting separately enforceable requirements (such as submitting a justification for proposed monitoring) and (6) the statement in the preamble to the revised CAM draft that information generated by CAM monitoring may be used as "credible evidence" to show the existence of a violation either in Agency enforcement actions or citizen suits. Another

commenter added that the multiplicity of new requirements significantly increases the risk of enforcement where no underlying requirement has been violated and without providing any benefit to the environment.

Response: The Agency believes that the final rule, including the revised general criteria language in § 64.3(a), properly reflects the CAM approach of providing a reasonable assurance of compliance by documenting that a pollutant-specific emissions unit is operated and maintained so as to remain in compliance across its anticipated operating conditions. Many of the specific comments have been addressed in the final rule and in response to comments under Section 14.1 (Part III), above. However, as noted in that section, part 64 is an independent applicable requirement, and as such will result in some independently enforceable requirements, such as an obligation to submit the appropriate rationale to support proposed monitoring. In response to comments on the 1996 part 64 Draft, the Agency has attempted to limit these types of requirements to those which the Agency believes are essential to effective implementation of part 64. Comments related to credible evidence have been discussed in Section I.E. of the Final Rule Preamble and Section 14.2 (Part III), above.

Letter(s): American Automobile Manufacturers Association (VI-D-157); Association of Battery Recyclers (VI-D-155); Centerior Energy (VI-D-134); Chemical Manufacturers Association (VI-D-152); Chevron Companies (VI-D-132); Clean Air Implementation Project (VI-D-153); Coastal Corporation (VI-D-271); Electronic Industries Association (VI-D-137); Independent Liquid Terminals Association (VI-D-178); Mobil Corporation (VI-D-115); Ohio Chamber of Commerce, et. al. (VI-D-160); Pharmaceutical Research and Manufacturers of America (VI-D-217)

Comment b: One commenter stated that because of the credible evidence rule, the requirement to develop new continuous compliance methods under CAM, and the definition of CAM excursions as deviations and exceptions to compliance, the rule creates the ability for parties to allege violations through CAM. The commenter stated that although EPA states that it or anyone else seeking to use credible evidence will carry the burden of proof, that requirement is undone by the fact that CAM requires indicator ranges to be established during tests. According to the commenter, the burden will shift back to the source to document why subsequent data

should not be considered consistent with the relationship initially established.

Response: The Agency disagrees that part 64 establishes new continuous compliance methods. Part 64 requires monitoring to provide a reasonable assurance of compliance with existing requirements; it does not change the method established in a particular standard as the compliance test method for that standard. The reasonable assurance is provided by maintaining key parameters within operating ranges that reflect proper operation and maintenance of the control device, in accordance with applicable design properties, for minimizing emissions at least to the levels required to achieve compliance. The final rule generally requires the ranges to be set at least in part based on performance test data to establish an appropriate baseline for the specific unit; the rule does not contemplate a statistical correlation of emissions and parameters across the whole range of potential emissions. See Section II.D.2. of the Final Rule Preamble for further discussion.

Letter(s): Mobil Corporation (VI-D-115); Mobil Corporation (VI-D-248)

Comment c: Another commenter added that the extensive review a responsible official will need to do to certify compliance in light of the CE rule seems contrary to the 5th amendment.

Response: Reporting and compliance certification requirements such as imposed by Part 70 do not implicate the Fifth Amendment. See United States v. Ward, 448 U.S. 916 (1980).

Letter(s): Coastal Corporation (VI-D-271)

Comment d: One commenter stated that its experience has been that EPA enforcement guidance are not relied on and enforcement policy is therefore unpredictable. The commenter asserted that sources are, in effect, guilty until proven innocent. Thus, the commenter recommended, EPA should convert its current enforcement guidelines to regulation so that all parties understand what constitutes compliance in terms of monitoring availability and adherence to emission standards.

Response: These comments are beyond the scope of this rulemaking and will not be addressed in this response to comments.

Letter(s): Public Service Company of Colorado (VI-D-219)

Comment e: Another commenter stated that the enforcement aspects of the rule create uncertainty; for example, the decision to issue notices of violations for indicator range deviations will become a subjective decision by individual inspectors or enforcement agencies. A second commenter suggested that EPA clarify what effect existing federal and State compliance enforcement policies will have on the designation of exceedances. A state agency recommended reducing uncertainty by allowing permitting authorities to define which CAM data are considered credible evidence.

Another commenter recommended that the CAM rule impose only two applicable requirements in order to reduce enforcement concerns: the obligation to have a CAM plan and the requirement to report deviations. The commenter noted that this would also simplify the permit modification process since CAM plan changes would not require permit changes.

Response: Because the final part 64 rule does not require that monitoring provide the degree of certainty that would have been provided by enhanced monitoring proposed in 1993, EPA recognizes that the interpretation of data for potential use in an enforcement action will be subject to some degree of uncertainty. However, the Agency believes that the standards included in the final CE rulemaking for what constitutes credible evidence clarify adequately the degree of certainty required before non-reference test method data, including part 64 data, can be used to determine the existence of a violation.

Letter(s): American Automobile Manufacturers Association (VI-D-157); Coalition for Clean Air Implementation (VI-D-249); DuPont Engineering (VI-D-127); Texas Natural Resource Conservation Commission (VI-D-256); Virginia Power (VI-D-226)

Comment f: Commenters also argued that the enforcement aspects of the draft CAM rule create disincentives for developing strong CAM plans with indicator ranges below emission limits. One commenter stated that although

States have the power to be more stringent, EPA should discourage this approach. According to this commenter, penalizing deviations will result in sources proposing as little monitoring as possible and setting indicator ranges at the same level as emission standards, which frustrates the goals of gaining more information about and reducing emissions. Other commenters stated that the potential that CAM data could be used as credible evidence provides disincentives for sources to perform more than the minimum monitoring and to bring possible problems to EPA's attention. A commenter stated that a focus on optimizing control performance rather than enforcement would encourage sources to set more ambitious indicator ranges and ease negotiations between sources and states. Another commenter predicted that the pressure placed on negotiations over part 64 monitoring by the CE rule could strangle the federal operating permits program in many states.

In addition to comments stating that CE encourages sources to do the minimum amount of monitoring under CAM, some commenters argued that without an enforcement shield, the type of monitoring used will be ratcheted up because of the relationship between the two rules. A commenter argued that the CE rule pushes sources toward CAM protocols that are comparable to reference methods for actively controlled units and units without active controls. Another commenter stated that permitting authorities will negotiate CAM elements with the gathering of credible evidence in mind while sources will seek to develop CAM plans that do not produce credible evidence. However, another commenter stated that the potential for enforcement creates a disincentive for sources to directly monitor levels of emissions. The commenter reasoned that, because the credible evidence rule would allow for enforcement based on CAM data, sources would have a strong incentive to monitor only parameters which could not be correlated with emissions. One commenter stated that the rule generally seems to emphasize the enforcement consequences of excursions from indicator ranges. According to this commenter, the source has the burden of assuring compliance and should be provided incentives to generate improved monitoring without the fear of automatic presumptions of noncompliance.

Similarly, several commenters stated that because of the enforcement consequences associated with QIPs, terms included in permits, the credible evidence rule, and similar concerns, sources will design CAM plans to minimize potential liability. These commenters pointed out that

this is contrary to the original CAM objective of encouraging sources to set lower indicator ranges, which would provide early warning of potential operation and maintenance problems. One commenter added that the proper result could be achieved by making two changes in the draft rule: exceedances of indicator ranges should never be a violation, and there should be no enforcement liabilities associated with QIPs except for failure to carry them out. Another commenter added that the current draft of the CAM rule will result in more emissions to the atmosphere than it would if it did not provide a disincentive for setting indicator ranges well below the emissions limitations or standards. A commenter stated that enforcement aspects of the draft rule will inevitably lead to conflicts between permit writers and owner/operators seeking indicator ranges as close as possible to emission limits. Another commenter argued that sources should not be penalized for good faith mistakes, and those who are ready, willing and able to comply must be given clear guidance as to what compliance entails. This commenter concluded that there should be no unfunded increase in State burdens or additional impacts on sources without commensurate emission benefits.

One commenter stated that EPA's stated goals for the CAM rule would be better served by relying on corrective action rather than creating enforcement opportunities. A second commenter argued that even if EPA itself does not bring enforcement action based on CAM excursions, or sources have certain defenses available, enforcement aspects frustrate the stated goals of CAM because sources tend to settle faced with litigation costs or permit agency enmity.

In contrast, one commenter stated that CAM simply results in information and although the use of that information may raise enforcement concerns, the proper use of CAM data is to assure compliance, a use that does not raise enforcement concerns. This commenter also stated that the credible evidence rule is a discrete program with separate concerns, and that proper quality improvement planning should obviate the need for enforcement action in most instances.

Response: The Agency disagrees that the potential enforcement consequences related to part 64 data will alter significantly the use of part 64 data to improve control performance. Section 64.3 of the final rule describes the minimum criteria for monitoring under part 64. The Agency believes that if a source meets these criteria, the monitoring will be adequate to provide

a reasonable assurance of compliance. In addition, the Agency cannot expect that the majority of sources would go beyond the minimum requirements even if, for the sake of argument, no enforcement consequences existed at all. However, given that exceedances and excursions must be reported and considered in compliance certifications, EPA anticipates that prudent owners or operators will establish internal operating ranges as early warning signals to avoid excursions or exceedances. The Agency believes that this system of establishing separate ranges for regulatory and internal purposes fulfills the goals of CAM and will focus review of reported data on those situations for which compliance oversight may be warranted. This approach also reduces the unwarranted paperwork burdens that would be associated with EPA encouraging sources to set more stringent indicator ranges that may involve an increase in the number of false indications of control device problems that would have to be recorded and reported.

Letter(s): American Gas Association (VI-D-255); American Petroleum Institute (VI-D-146); Association of Battery Recyclers (VI-D-155); Can Manufacturers Institute (VI-D-181); Can Manufacturers Institute (VI-D-262); Chemical Manufacturers Association (VI-D-152); Clean Air Implementation Project (VI-D-153); Coalition for Clean Air Implementation (VI-D-249); Coastal Corporation (VI-D-271); DuPont Engineering (VI-D-127); El Paso Energy Corporation (VI-D-257); Gas Processors Association (VI-D-163); Institute of Clean Air Companies (VI-D-139); National Environmental Defense Association (VI-D-169); Pharmaceutical Research and Manufacturers of America (VI-D-217); State of Washington, Department of Ecology (VI-D-167); Texas Natural Resource Conservation Commission (VI-D-189); Texas Title V Planning Committee (VI-D-188); UCAR Carbon Company (VI-D-122); Utility Air Regulatory Group (VI-D-252)

Section 14.4: Effectiveness of CAM Information for Enforcement

Comment a: Some commenters stated that they object to the draft proposal's efforts to link control device performance with emission limitations. Two commenters asserted that much of the burden of CAM plan development will result from provisions (such as § 64.8(b)) requiring an applicant to demonstrate a relationship between the selected control device parameter(s) and the underlying emission rate. These commenters added that EPA's statements that parameter "discrepancies" can be used

as a basis for enforcing underlying emission limits are based on the questionable assumption that there is a well-defined relationship between control device parameters and pollutant emission rates. One commenter recommended that the final rule confirm that no presumptions apply to the credibility of CAM data since this information could be given undue weight by states and courts. Commenters also stated that a relationship between control device parameters and the underlying emission rate does not need to be established to meet the CAM goal of establishing parameters that define good control device O&M. Commenters also stated that the parameter monitoring could serve as a indicator for further investigation and corrective action, but that it is inadequate to support actual enforcement.

Response: The reasons for relying on performance testing to assist in establishing appropriate site-specific indicator ranges is discussed in section 8 (Part III), above. Part 64 does not create any presumption about the value of data from part 64 monitoring as potential credible evidence to prove a violation of an emission limit. As noted in the preamble to the final CE rule, any excursions from part 64 indicator ranges will have to be evaluated on a case-by-case basis (see 62 FR 8314, February 24, 1997).

Letter(s): ASARCO Incorporated (VI-D-187); Coalition for Clean Air Implementation (VI-D-164); Gas Processors Association (VI-D-163); Kennecott Corporation (VI-D-119); The Society of the Plastics Industry, Inc. (VI-D-250); Texas Title V Planning Committee (VI-D-188)

Comment b: A number of commenters noted EPA's statement in a letter from John Seitz dated June 3, 1996 that data from CAM plans will be one of the primary forms of "credible evidence" used in federal enforcement actions. One commenter asserted that the CAM draft must be revised to require a closer link between monitored parameters and actual emissions in order for CAM plan data to be a valid form of "credible evidence" for use in enforcement actions.

Response: The referenced letter made this observation because the monitoring under part 64 will encompass all of the required monitoring for many emissions units with control devices. The letter was not intended to indicate that all part 64 monitoring data would constitute credible evidence in a particular circumstance. The Agency's position on the

correlation issue is discussed in section 8 (Part III), above, and in Section II.D.2. of the preamble to the final rule.

Letter(s): Coastal Corporation (VI-D-271); El Paso Energy Corporation (VI-D-257); NESCAUM (VI-D-192)

Comment c: State and local agency commenters stated that the draft CAM rule does not provide an enforcement nexus with data collected. The commenters pointed out that permitting authorities need the ability to follow up as necessary to remedy compliance problems that are detected by CAM measures and requirements. An association of state and local authorities suggested a scheme for categorizing sources according to the type of monitoring used and specified enforceable terms to be included in permits for each type. Similarly, agencies recommended that the CAM rule establish that State and local agencies have the authority to enforce all elements of operating permits within their jurisdictions. The commenters noted that the draft proposed rule considers and supports State agency enforcement of existing permit conditions as well as those to be added by CAM, but expressed the belief that EPA must make it explicitly clear that State and local agencies have both the power and discretion to enforce all operating permit elements within those agencies' jurisdiction.

Response: The Agency disagrees that the rule does not provide an appropriate enforcement nexus with the data collected. First, if sources fail to respond appropriately to reported excursions, that failure would constitute a violation of part 64. In addition, under the CE rule, a reported exceedance or excursion can be used to prove a violation of a condition of the permit if the burdens of proof associated with that use of the data are met. Finally, a permitting authority may establish an indicator range as an enforceable condition of the permit consistent with its independent authority to assure compliance with the permit (see, e.g., 40 CFR 70.6(a)(1))

Letter(s): City of Jacksonville AWQD (VI-D-272); State of Illinois EPA (VI-D-183); Missouri Department of Natural Resources (VI-D-260); STAPPA/ALAPCO (VI-D-179); STAPPA/ALAPCO (VI-D-274)

Comment d: Some commenters argued that the draft CAM proposal would restrict citizens' right to know about and enforce emission standards. Commenters stated that operating permits and reports will not contain accurate emissions and compliance information, and that qualified opinion statements by owners and parameter data will not enable citizens to know about emissions and enforce emission standards. Commenters also stated that by requiring only monitoring of parameters not correlated with emissions, CAM does not provide the public with information about the number of people potentially exposed to air pollutants or the level of pollutants to which they have been exposed. Similarly, an environmental group argued that the draft CAM rule does not generate the kind of information contemplated by Congress. The commenter stated that the legislative history indicates that Congress intended the Act to produce certifications and data that facilitate enforcement. This commenter noted that the Senate Report compares the monitoring and certification requirements to those of the Clean Water Act, which require sources to monitor their actual discharges; however, the CAM rule fails to require sources to gather similar data. The commenter added that the Senate Report also states that compliance certification and emissions data will facilitate enforcement since they can be used as evidence, but the draft CAM rule would not facilitate enforcement, since even gross exceedances of CAM plan ranges will not establish a violation of emissions standards.

Response: The Agency has previously responded to certain of these comments directly in a letter from John Seitz (dated April 17, 1997) to various concerned parties (see Docket Item A-91-52-VI-C-17). With respect to "right to know" concerns, the Agency remained committed to its stated goals of providing all citizens with information about emissions to the environment. The Agency uses several tools to reach that goal, including the toxic release inventory, emission statements required under title I of the Act, emission estimates used to establish title V permit fees, and compliance monitoring data. In all these situations, however, the Agency must balance the cost of recordkeeping and reporting with the usefulness of the data for compliance assessment and the public's right to know. The Agency believes that in the context of a broadly applicable monitoring rule, the final part 64 rule properly balances those considerations.

The EPA does not agree that part 64 is inconsistent with the legislative history for section 114(a)(3). The Senate Report cited by the commenter noted that data submitted under section 114(a)(3) could be used for

enforcement purposes as are data submitted under the reporting requirements of the Clean Water Act. Although the monitoring under part 64 will, at times, differ from the type of monitoring required under the Clean Water Act, data gathered under part 64 will be available for enforcement purposes.

Letter(s): American Lung Association et. al. (VI-D-238); Clean Steel Coalition (VI-D-195); Institute of Clean Air Companies (VI-D-139); Natural Resources Defense Council (VI-D-151); Natural Resources Defense Council (VI-D-267 and 268); Sierra Club, Lone Star Chapter (VI-D-242)

Section 14.5: CAM Shield

Comment a: Several commenters recommended that the CAM rule provide a shield that would protect a source fully complying with CAM from enforcement of emission limitations or standards. One commenter argued that the availability of a CAM shield could encourage owners and operators to voluntarily subject additional emission units to the CAM requirements, which would further the original CAM concept of encouraging sources to obtain additional monitoring data to help ensure proper operation and maintenance. Other commenters stated that the failure to offer a shield against enforcement under the credible evidence rule to sources in compliance with a CAM plan aggravates concerns relating to the interaction of the CAM rule and the credible evidence rule including the disincentive for establishing indicators below emission limits. Commenters also stated that without a CAM shield, this interaction allows CAM improperly to have it both ways: deviations from established indicator ranges can be used as credible evidence, but there is no protection for sources that stay within their ranges. A commenter added that a source that is complying with its CAM obligations, including any QIP obligations, should not be subject to an enforcement action unless the source has failed a reference method test.

A commenter asserted that the rule requires sources to set indicator ranges at levels below the emission limits and that, therefore, sources that comply with the rigorous CAM monitoring requirements should be shielded from additional enforcement actions. One commenter stated that compliance with a CAM plan should be considered compliance with the underlying emission limits. Another commenter asserted that if the goal of

CAM is to require corrective action in response to problems with control device performance, then proper monitoring and corrective action should shield a source from allegations of noncompliance, because the trigger for corrective action in the absence of compliance method data does not necessarily indicate a violation. Finally, one commenter reasoned that compliance with a good CAM will preclude the existence of other factors indicating non-compliance and EPA, therefore, would sacrifice no enforcement opportunities by providing a shield. The commenter also viewed the lack of a shield as an indication that EPA retains the right to reject previously accepted part 64 monitoring at any time, and stated that this is unfair and creates uncertainty. Another commenter agreed that the approach deprives sources of fair notice as to what is required of them.

Some commenters made specific suggestions for a CAM shield. One commenter recommended that industry should earn CAM shields by providing data that establishes the relationship between monitored parameters and actual emissions. Sources that could demonstrate such a relationship through a methodology approved by EPA or the state would not be given the protection of the shield. According to the commenter, this approach is preferable to the current CAM shield proposal, which places the burden of determining the adequacy of a proposed CAM plan on permitting authorities. Some commenters expressed support for a shield that would prevent the use of CAM data for citizen suits or any federal enforcement action, including notices of violations and fines, unless the source had violated the permit conditions implementing the CAM plan. According to these commenters, such a shield would be necessary for the CAM rule to remain consistent with its goals of promoting good O&M of control devices and techniques. A commenter explained that the Agency should provide a shield that recognizes that CAM is designed to accomplish quicker problem identification and resolution and the data are suited only for that purpose. Another commenter recommended allowing permitting authorities to provide limited exclusions on the use of CAM data for enforcement based on a percent of time or conditions such as startup, shutdown or malfunction. Two commenters added that if EPA or a citizen group wanted to bring an action against a source that was in compliance with its CAM plan, they should have the burden of demonstrating that the CAM plan was insufficient, that the source knew the plan was insufficient, and that a reference test would have shown an emissions violation if it had been conducted.

A commenter stated that if a source experiences a major excursion or exceedance while operating in good faith under a QIP (as indicated by factors such as prompt action and notification), the rule should provide some shield from agency enforcement action and citizens suits. The commenter recommended that if this subject cannot be addressed in the CAM rule, it should be addressed in the CE rule. Another commenter stated generally that a source should be shielded from credible evidence rule enforcement if the source is operating under a QIP.

Response: See Section I.E. of the Final Rule Preamble for a discussion of why EPA disagrees with the concept of an enforcement shield in the context of part 64.

Letter(s): American Gas Association (VI-D-255); American Municipal Power - Ohio (VI-D-159); American Petroleum Institute (VI-D-146); BP Oil Company (VI-D-113); Can Manufacturers Institute (VI-D-262); Chemical Manufacturers Association (VI-D-152); Chevron Companies (VI-D-132); Clean Air Implementation Project (VI-D-153); Coalition for Clean Air Implementation (VI-D-164); Coalition for Clean Air Implementation (VI-D-249); Coastal Corporation (VI-D-123); Coastal Corporation (VI-D-249); Colorado Association of Commerce and Industry (VI-D-182); El Paso Energy Corporation (VI-D-257); Fertilizer Institute (VI-D-253); Integrated Waste Services Association (VI-D-147); Questar Corporation (VI-D-220); State of New Jersey Dept. of Environmental Protection (VI-D-215); Specialty Steel Industry of North America (VI-D-143); Steel Manufacturers Association (SMA) (VI-D-144); Texas Title V Planning Committee (VI-D-188); The Society of the Plastics Industry, Inc. (VI-D-250); Utility Air Regulatory Group (VI-D-252)

Comment b: One commenter suggested that a source that voluntarily develops part 64 monitoring that provides an extra margin of protection is voluntarily reporting more than it is required to and should get the protection offered by EPA's audit policy.

Response: If an owner or operator voluntarily establishes an indicator range that more than satisfies the minimum requirements of part 64, and includes that range as the range which triggers the reporting and corrective action requirements of part 64, the information reported would be required information, and thus the audit policy would not apply.

Letter(s): American Gas Association (VI-D-255)

Section 14.6: Miscellaneous

Comment a: One commenter recommended revising the CAM rule so that it applies only to approved local programs. According to this commenter, this change would be necessary to prevent local governments from using CAM as nothing more than a local revenue enhancing mechanism.

Response: The Agency is uncertain as to what the commenter meant by this comment. However, in accordance with part 70, all permitting authorities have been required to demonstrate the authority to implement any enhanced monitoring regulations promulgated under the Act, and EPA will assure that all permitting authorities implement part 64 so that at least the minimum monitoring necessary to satisfy part 64 is adopted. In addition, a permitting authority may require more stringent monitoring than necessary to satisfy part 64, using its independent authority.

Letter(s): Southern Company Services (VI-D-171)

Section 15: Procedural Issues

Section 15.1: Administrative Procedures Act

Comment a: A number of commenters argued that the CAM rule should or must be formally proposed to satisfy section 553(b) of the APA, which requires every notice of proposed rulemaking to be published in the Federal Register. Several commenters stated that the August 13, 1996 CAM notice of document availability did not satisfy the formal proposal requirement. Some commenters stated that the notice's statement that the CAM draft was available on the TTN did not meet the requirements of the APA and that the notice limited availability of the document to those with the technological means to connect to the TTN. Two commenters also noted that the earlier CAM draft had stated that EPA planned to formally propose the CAM rulemaking. Some commenters also stated that EPA's failure to issue a full RIA with the August 13, 1996 notice was another reason that EPA had failed to satisfy the APA's notice and comment requirements. Another commenter urged EPA to formally repropose CAM with an RIA to allow review and public comment on the changes made to the proposed rule as a result of the current comment period.

Some commenters stated that EPA must provide all interested parties with adequate notice of its intent to issue a final rule. Commenters further stated that adequate notice can only be provided by publishing a notice of proposed rulemaking in the Federal Register describing the terms and substance of the proposed rule. The only exception is limited to notice for parties named in a proposed rule who may be personally served or otherwise provided with actual notice. The commenters cited Rodway v. U.S. Dept. of Agriculture. One of these commenters added that the APA does not countenance any other sort of constructive notice, even in cases where publication in the Federal Register seems unnecessary, citing Riverbend Farms Inc. v. Madigan. Also, two commenters stated that EPA cannot ignore APA requirements just because the Agency must comply with statutory or court-ordered deadlines, such as the consent agreement governing CAM and the "credible evidence" rulemaking. These commenters cited Mobay Chemical Corp. v. Gorsuch, AISI v. EPA, and Sharon Steel Corp v. EPA. Further, commenters argued that the current CAM proposal does not satisfy APA notice and comment requirements

because many issues (such as how indicator ranges are to be established, how CAM plans or monitoring protocols are to be modified, how SIPs should be revised to incorporate Part 64, and how EPA reached its conclusions about cost-effectiveness of the program (i.e., EPA failed to release an RIA)), are either not addressed or left unacceptably vague in the proposal.

Commenters also stated that the CAM proposal is procedurally flawed because it does not provide adequate notice that would allow informed public comment. One commenter recommended that EPA revise and reissue the current draft of the CAM rule in draft form for additional public comment. This commenter stated that if a second draft were issued, it should be accompanied by a complete technical guidance document and a regulatory impact analysis in order to allow affected parties to better analyze the draft rule and prepare comments in response to the draft. Some commenters argued that there must be an appropriate opportunity for the entire regulated community to review and participate in discussion of a proposed CAM rule, and that without this type of formal proposal, it is impossible to comment meaningfully on the rule.

Response: EPA believes the procedures it followed in promulgating the CAM rule fully complied with the notice requirements of section 307(d) of the CAA and section 553(b) of the APA. In fact, the procedures followed by EPA in this case far exceeded statutory requirements and demonstrated EPA's responsiveness to the concerns of commenters. Ironically, the unprecedented nature of EPA's efforts to obtain public comment on CAM is noted with approval by some of the same commenters who have asserted EPA has committed procedural error. See, e.g., CMA, Cover letter (commending EPA for its "degree of openness"); CAIP, p. 1 ("We also want to commend the EPA staff, led by Peter Westlin, for their extensive efforts to solicit the viewpoints of all interested stakeholders during the development of the CAM program.").

As discussed in response to comment b, below, EPA believes that the final rule is justified as a logical outgrowth of the 1993 EM proposal and thus no new proposal was required under the CAA or the APA. Even assuming, however, that certain provisions in the final rule could be found not to be a logical outgrowth of the original proposal, the Agency further believes that the procedures used to solicit further comment on its

revisions to the 1993 proposal are in compliance with the requirements of section 307(d) of the CAA and section 553(b) of the APA.

The part 64 rulemaking was initially proposed on October 22, 1993 (58 FR 54648). The initial comment period was extended on December 15, 1993 (58 FR 65573). During that initial comment period over 2,000 letters were received on the proposal. On December 28, 1994, EPA reopened the comment period on particular issues. In response, the Agency received an additional 215 comment letters. In April and May 1995, the Agency announced its intention to consider a different approach to providing data for compliance certification purposes through part 64 than the approach proposed in the original proposal (see docket items VI-E-1 through VI-E-5 and 60 FR 27943, May 26, 1995). This approach was consistent with the vast majority of industry commenters on the proposed rule. Those comments argued that the proposal would impermissibly create new continuous compliance test methods for existing applicable requirements. The Agency's revised approach was designed to focus on providing a reasonable assurance of compliance by monitoring to assure that control equipment, once installed, was properly operated and maintained so that the control equipment would continue to achieve compliance with applicable requirements.

The Agency first provided notice of and solicited comment on its revised approach -- the CAM approach -- in September 1995 (see 60 FR 48679, September 20, 1995). The Agency published a brief summary of the proposed CAM approach in the Federal Register, referenced the legal authority for the proposed rule, and gave notice of when comments must be submitted and of a public meeting on the proposal. The notice supplied the docket number for the rulemaking, the location of the docket, and the times the docket was open to the public. In addition, the Federal Register notice informed the public how it could obtain a full text version of the revised proposed rule text and a statement of basis and purpose for the proposed rule. The Agency received numerous comments on that revised proposal both in the form of written submittals and oral comments at the public meeting which was held. After considering the comments on the CAM approach, EPA decided that the overall thrust of the CAM approach should be retained but that some adjustments were necessary. Rather than promulgate CAM at that point, the Agency initiated another round of comment on the CAM approach with publication of a Federal Register notice in August 1996 (see 61 FR 41991, August 13, 1996).

This notice contained the same elements as the notice in September 1995 including making available a full text of the revised CAM approach and a statement of basis and purpose. Again, numerous comments were received on that draft through both written submittals and oral comments at a public meeting.

The notices published in September 1995 and August 1996 and the accompanying rule text and statements of basis and purpose meet each of the requirements specified in section 553(b) of the APA and section 307(d)(3). Those provisions require publication in the Federal Register of a notice that describes the public rulemaking proceedings (including the period for public comment), information regarding the rulemaking docket, references legal authority for the rulemaking, and explains either the terms or substance of the proposed rule or a description of subjects and issues involved. Further, the notice must be accompanied by a statement of basis and purpose which includes a summary of factual data relied upon (including the methodology for obtaining the data) and major legal interpretations and policy considerations. As detailed above, each of these requirements was met. The cases cited by commenters to show procedural error are not on point. In each of these cases no notice of proposed rulemaking was published and the public was provided with far less opportunity to participate in the rulemaking. Riverbend Farms v. Madigan, 958 F.2d 1479, 1486-1487 (9th Cir. 1992) (notice of proposed rule not published in Federal Register; no allowance for submission of written comment); Mobay Chemical Corp. v. Gorsuch, 682 F.2d 419, 425-426 (3rd Cir. 1982) (notice of proposed rule not published in Federal Register; circulation of working draft was too late to get comments from many interested parties); Rodway v. United States Dept. of Agriculture, 514 F.2d 809, 814-815 (D.C. Cir. 1975) (notice of proposed rule not published in Federal Register; no notice whatsoever and no period of public comment; "the APA procedures were ignored from start to finish").

Commenters also claim procedural error occurred under the Regulatory Flexibility Act (RFA) and Executive Order 12866. The RFA generally requires an agency to conduct a regulatory flexibility analysis of any rule subject to notice and comment rulemaking requirements unless the agency certifies that the rule will not have a significant economic impact on a substantial number of small entities. (5 U.S.C. § 605(b)) The EPA made such a certification in regard to its 1993 proposal and the CAM drafts and took comments on the certification. See 62 FR 20147 (April

25, 1997); 61 FR 41991 (August 13, 1996); 58 FR 54648, 54680-54681 (October 22, 1993). Thus, EPA fully complied with the RFA. Executive Order 12866 creates procedures for intergovernmental review of rulemaking proposals including specifying that Regulatory Impact Statements (RIA) be prepared for significant rules. EPA prepared a RIA and released it for public comment in connection with the 1993 proposal. The heart of the RIA prepared for CAM -- its analysis of the affected firms and the costs of CAM -- was also released to the public for review and comment.

In sum, EPA committed no procedural errors in the promulgation of part 64. Each of the commenters claiming otherwise -- as well as numerous other members of the public -- submitted extensive comments on the CAM approach, reflecting the adequacy of the public notices and opportunities for comment. Moreover, commenters have not made any credible showing that part 64 would have been significantly changed if some other procedure had been followed. See CAA § 307(d)(7)(B). Such a showing is not possible because the public has been given unparalleled rights of participation in this rulemaking.

Letter(s): American Automobile Manufacturers Association (VI-D-157); American Petroleum Institute (VI-D-146); Armstrong, Teasdale, Schafly & Davis (VI-D-205); BP Oil Company (VI-D-113); Chemical Manufacturers Association (VI-D-152); Chevron Companies (VI-D-132); Cinergy Corp. (VI-D-141); Clean Air Implementation Project (VI-D-153); Coalition for Clean Air Implementation (VI-D-164); Coastal Corporation (VI-D-123); Electronic Industries Association (VI-D-137); Exxon Company, USA (VI-D-135); Fertilizer Institute (VI-D-253); General Electric Company (VI-D-156); Independent Liquid Terminals Association (VI-D-178); Louisiana Mid-Continent Oil and Gas Association (VI-D-184); Marathon Oil Company (VI-D-185); Mobil Corporation (VI-D-115); National Environmental Development Association (VI-D-169); Ohio Chamber of Commerce, et. al. (VI-D-160); Pennzoil Company (VI-D-133); Specialty Steel Industry of North America (VI-D-143); Steel Manufacturers Association (SMA) (VI-D-144); Texas Natural Resource Conservation Commission (VI-D-256)

Comment b: Some commenters argued that the CAM proposal does not constitute a logical outgrowth of the previous enhanced monitoring proposal. Commenters stated that because the CAM proposal represents a

fundamentally different approach and raises numerous issues, such as the QIP provisions, which are not the logical outgrowth of the enhanced monitoring proposal, EPA may not rely on the October 1993 publication of the enhanced monitoring proposal to satisfy the formal proposal requirement. Similarly, other commenters argued that, since the draft CAM rule is a major revision of the 1993 EM proposal, it would be inappropriate to finalize this revision without issuing a formal proposal in the Federal Register. According to these commenters, EPA's decision to proceed with final promulgation of CAM without reproposal violates the notice and comment requirements of the Clean Air Act.

Some commenters further stated that the CAM rule changes the basic relationship of monitoring to compliance and expands the rule's applicability. According to these commenters, when an agency strikes out in a new direction because of criticism of its initial rulemaking, the agency must formally propose the redesigned rule. Some commenters included cites to relevant cases on point. In particular, commenters cited to the Shell Oil case, which involved a similar fact pattern involving significant changes in the monitoring required under the proposed and final rules. Other commenters cited Fertilizer Industry v. EPA. One commenter acknowledged that the "harmless error" doctrine applies to failure to comply with the APA, and that the extensive and laudable outreach process conducted by EPA may be sufficient provided that comment is taken on the RFA and RIA. This commenter cited Riverbend Farms. Two commenters also stated that the proposed changes to Parts 70 and 71 were not part of the original proposal and thus have never been subject to formal public notice and comment. Thus, even if the CAM rule could qualify as a logical outgrowth of the 1993 EM proposal, these Part 70 and 71 changes cannot qualify.

Response: As indicated in the release of a draft proposal in 1995, the Agency did at one point consider publishing the full text of a new proposed version of part 64 to reflect the revisions made since the original 1993 EM proposal. Subsequently EPA did release two revised versions of part 64 for comment. As explained in the prior response, EPA believes these procedures fully complied with the requirements of the APA and the CAA for the reasons there stated. Additionally, the Agency believes this approach is justified because, as demonstrated in the preamble to the final rule, the final rule is a logical outgrowth of the original proposal. The revisions which industry claims are the provisions which cannot be

considered a logical outgrowth are either in direct response to the suggestions they made on the original proposal, or are provisions which have been dropped from the final rule even though they were included in the 1996 part 64 Draft.

Although there have been substantial changes made to the 1993 proposal in adapting it to the CAM approach, the 1993 proposal identified all of the critical issues in the rulemaking and gave affected parties notice that their interests were at stake. Importantly, the basic form of the rule remained the same as the focus shifted to the CAM approach. There are several key elements to part 64: (1) applicability; (2) implementation through permits; (3) use of the data to determine compliance and submit compliance certifications; and (4) the criteria that must be met to satisfy the monitoring requirements. As discussed in detail in the preamble to the final rule, each of the final rule provisions in these areas is a logical outgrowth of the original proposal. For applicability, the original proposal requested comment on numerous different applicability options based on potential to emit or on uncontrolled emissions. Numerous commenters urged EPA to further narrow applicability so that work practice and other non-numeric emission standards would not be subject to part 64. In addition, commenters argued that the type of monitoring considered for part 64 is best suited to emissions units with add-on control equipment. By limiting the rule to emissions units with control devices, the Agency believes that it has responded effectively to these concerns. The other applicability provisions are closely related to the options discussed in the original proposal, or are exemptions specifically requested in the comments received from various industry commenters.

For implementation, the Agency has retained the basic concept of implementing the rule through permits, although the final rule focuses only on title V operating permits and extends the implementation time period in response to concerns about burdens to the permit process. The possibility of an extended implementation schedule was raised in the December 1994 notice reopening the comment period on the original proposal and thus commenters had a full opportunity to comment on possible options for extending the implementation schedule.

With respect to the use of data for certification purposes, the original proposal would have required the owner or operator to use the monitoring to determine compliance for purposes of submitting a compliance

certification. Although the 1993 proposal did not include revisions to the part 70 or part 71 rules, it did include appropriate cross-referencing that would have impacted how the part 64/part 70 (or 71) compliance certification interface would be implemented. The final rule retains the basic approach that part 64 monitoring must be relied on in submitting compliance certifications and makes appropriate revisions to the actual provisions in parts 70 and 71 in order that part 64 will be implemented appropriately. The Agency believes that the revisions to parts 70 and 71 are a logical outgrowth of the original proposal and clarify how part 64 monitoring should be evaluated for purposes of certifying compliance.

Finally, the monitoring criteria in the final rule are less strict than in the proposal, primarily in response to industry comments on the proposal and in response to the Agency reconsidering the certainty with which an owner or operator must determine compliance for purposes of submitting a compliance certification. However, many of the basic requirements included in the proposal with respect to the types of monitoring criteria that must be achieved and the flexibility for monitor selection that best suits the needs of a facility are retained in the final rule. Although the focus of CAM is now directed primarily at monitoring control equipment, such parameter monitoring was contemplated to play a major role in the monitoring approach proposed in 1993.

In addition, particular aspects of the 1996 part 64 Draft, most notably the QIP requirements, which commenters claimed could not be considered a logical outgrowth of the 1993 proposed rule, have been significantly changed in the final rule. The QIP provisions in the final rule do not include an automatic trigger provision or an automatic violation provision upon a second QIP occurring. Rather, the QIP provisions lay out a procedural mechanism that a permitting authority or EPA may require if an owner or operator is determined to have failed to meet the general duty to operate and maintain an emissions unit properly. The Agency believes that this non-mandatory provision is appropriate for the final rule even though it was not included in the original proposal. The QIP provisions have been revised extensively in light of the numerous public comments received and it is unlikely that further public comment and review would result in significant changes to the QIP provisions.

Letter(s): American Automobile Manufacturers Association (VI-D-157); American Petroleum Institute (VI-D-146); Chemical Manufacturers Association (VI-

D-152); CITGO Petroleum Corporation (VI-D-172); Clean Air Implementation Project (VI-D-153); Coalition for Clean Air Implementation (VI-D-164); Electronic Industries Association (VI-D-137); Enron Operations Corp. (VI-D-235); Exxon Company, USA (VI-D-135); Fertilizer Institute (VI-D-253); General Electric Company (VI-D-156); Mobil Corporation (VI-D-115); Ohio Chamber of Commerce, et. al. (VI-D-160); Southern California Gas Company (VI-D-222); Southwestern Public Service Company (VI-D-224); Specialty Steel Industry of North America (VI-D-143); Steel Manufacturers Association (SMA) (VI-D-144); Texas Utilities Services, Inc. (VI-D-121)

Comment c: One commenter stated that failing to repropose CAM would unfairly limit the opportunity of parties to comment on CAM and obtain judicial review, because a number of new significant issues have arisen since the changes from the original 1993 EM proposal and the legal status, in terms of judicial review, of comments on CAM drafts released through the TTN is uncertain.

Response: The EPA has included all comments received on this rulemaking in the docket. This docket will become the record for judicial review if such review is sought. In the three parts of this response to comments document EPA has responded in detail to all comments received on the 1993 proposal, the December 1994 reopened comment period, the August 1996 revised CAM approach, and impact analyses released in 1997. The Agency has reviewed all of the comments received in response to the September, 1995 notice and determined that EPA's response to comments received in 1996 and 1997 address all of the significant comments received on the earlier notice.

Letter(s): General Electric Company (VI-D-156)

Comment d: One commenter also stated that the August 1996 draft failed to explain how the Agency arrived at the current CAM draft from the original EM proposal, what factors were evaluated, or how the Agency considered the comments on the original proposal. This commenter stated that EPA cannot propose such a dramatic policy shift and maintain that the original proposal provided adequate notice for comment on all portions of the rule.

Response: As explained in responses to Comments a and b above, EPA believes that the August, 1996 revised CAM draft independently meets the applicable procedural requirements and that this final rule is a logical outgrowth of the 1993 proposal. Thus, EPA believes all affected parties received adequate notice and opportunity to comment.

Letter(s): Ohio Chamber of Commerce, et. al. (VI-D-160)

Comment e: Some commenters argued that even if the August 13, 1996 notice of document availability did satisfy the requirements of the APA, it did not satisfy the requirements of SBREFA, which applies to all notices of proposed rulemaking issued after June 29, 1996. Two commenters asserted that by failing to satisfy SBREFA requirements, EPA failed to satisfy APA notice and comment requirements. Another commenter stated that EPA cannot have it both ways: if the August 13th notice was the functional equivalent of a reproposal, then the notice was required to meet the new SBREFA requirements. A commenter explained that a SBREFA review panel would allow for more meaningful input on small business impacts and added that the Agency should recognize that even without reproposal of the rule SBREFA provisions such as the Congressional Review and regulatory flexibility analysis requirements will apply to the final rule.

One commenter asserted that EPA's reason for failing to publish a notice of proposed rulemaking was to avoid its obligation to release the initial RFA and RIA that would accompany the Federal Register notice.

Response: As made clear in the response to Comment a, EPA has fully complied with the RFA. The EPA has also made the most relevant portions of the RIA available for comment.

Letter(s): American Petroleum Institute (VI-D-146); Chemical Manufacturers Association (VI-D-152); Chevron Companies (VI-D-132); Coalition for Clean Air Implementation (VI-D-164); Council of Industrial Boiler Operators (VI-D-263); Exxon Company, USA (VI-D-135); Mobil Corporation (VI-D-115); Specialty Steel Industry of North America (VI-D-143) ; Steel Manufacturers Association (SMA) (VI-D-144); The Society of the Plastics Industry, Inc. (VI-D-148)

Comment f: One commenter also reiterated its previously expressed concern about EPA's tendency to publish proposed rules via computer bulletin boards (and now web sites) rather than publishing them in the Federal Register. The commenter reasoned that many people have difficulty getting access to such systems and that diagrams, tables, and the like are often distorted or lost altogether. Similarly, another commenter objected to the manner in which the draft CAM rule was made available for comment, and expressed the hope that for all other future rules EPA will publish the entire rule in the Federal Register.

Response: The Agency published a notice of document availability in the Federal Register. That notice indicated that the document was available not only through the TTN but also through the docket. The notice also provided instructions for contacting appropriate Agency staff for further information so that, among other things, interested parties that cannot access the material through electronic media or the docket could obtain a hard copy directly from EPA. The Agency distributed copies of the draft rule and discussion directly to all individuals requesting copies.

Letter(s): Chemical Manufacturers Association (VI-D-152); Metropolitan Council (VI-D-214)

Comment g: Some commenters stated that the lack of proposed credible evidence language in the draft CAM package also made the rule procedurally flawed. These commenters noted that this is true even if the release of the draft on the TTN was sufficient to satisfy the APA. Other commenters agreed. Two commenters stated that the CAM rule must be joined with a credible evidence rule if EPA intends to proceed with a credible evidence rule. Commenters also asserted that, to comply with the APA, EPA should rejoin the credible evidence and CAM proposals and issue a reproposal that fully explores the authority for, the relationship between, and the joint impact of the two rules. Some commenters stated that the credible evidence and CAM rules are inextricably intertwined, with the impact of each rule on industry being determined in many respects by the content of the other rule. One commenter stated that despite EPA's assurances, environmental groups and citizens will use CAM information as credible evidence, which will increase the Responsible Official's legal exposure and make it difficult to sign the biannual certification. Finally, a commenter stated that the lack of formal proposal for both the CAM and

credible evidence rules makes them more vulnerable to legal challenge and heightens regulatory uncertainty, which is not desirable for regulatory agencies or the regulated community.

Response: The Agency disagrees with those comments that argue that the CE revisions and part 64 must be proposed together. The Agency has finalized the CE revisions (see 62 FR 8314, February 24, 1997). In Section I.A. of the preamble to the final CE revisions, the Agency fully explained the rationale for why the rules can be treated separately.

Letter(s): American Automobile Manufacturers Association (VI-D-157); Baltimore Gas & Electric Company (VI-D-177); BP Oil Company (VI-D-113); Eastman Chemical Company (VI-D-173); Electronic Industries Association (VI-D-137); General Electric Company (VI-D-156); Independent Liquid Terminals Association (VI-D-178); Ohio Chamber of Commerce, et. al. (VI-D-160); Pennzoil Company (VI-D-133); Southern Company Services (VI-D-171); Tennessee Valley Authority (VI-D-162); The Society of the Plastics Industry, Inc. (VI-D-148); Utility Air Regulatory Group (VI-D-140)

Section 15.2: OMB Review/Regulatory Impact Analysis (prior to release of RIA sections)

Comment a: Some commenters stated that Executive Order No. 12866 requires EPA to issue both an initial and final Regulatory Impact Analysis. One commenter added that EPA may not simply ignore the requirements to issue initial and final RIAs that assess the costs and benefits of the Agency's approach and reasonably feasible alternatives when a rulemaking is subject to statutory and court-imposed deadlines. The commenter stated that EPA must schedule rulemaking proceedings to allow for compliance to the extent practicable. Two commenters stated that EPA should also make the entire RIA available for public comment prior to promulgation, instead of making available only the excerpts that EPA plans to post on the electronic bulletin board.

Two commenters also stated that the current CAM proposal must be considered a "significant" proposed rule under the Executive Order. The proposal would have an annual effect on the economy of at least \$100 million, and it involves novel legal and policy issues associated with section 114(a)(3) which affect implementation under other provisions of

the CAA, notably Title V. One of the commenters concluded that EPA must therefore issue an RIA for the CAM rule for public comment; the other stated that EPA must use proper data analyzing costs and benefits using reasonably current and accurate practices and dollar amounts.

Some commenters stated that making the initial RIA available helps the public determine whether to submit comments and makes the comments submitted more meaningful, particularly for a major rule like CAM, which will impact every State and federal regulation. Two commenters reasoned that EPA would assure even better constructive notice and meaningful comments on the CAM rule by publishing the initial RIA. For example, one commenter continued, it is impossible to comment effectively on issues such as the minimum data availability requirement, the 5 percent QIP threshold or the rule's method of determining applicability without knowing the statistical and technical basis underlying those requirements. Commenters also stated that the RIA must be available for sources to evaluate the rule impacts, comment effectively, and determine whether EPA understands the potential impacts and has chosen the most cost-effective proposal. Another commenter stated that since EPA has not released the RIA, the public has no information on how many emissions units EPA expects to be covered by Subpart B, Subpart C, or the rule in general. Two commenters stated that the unavailability of the RIA undermines the public's ability to comment on the cost-effectiveness of the CAM rule and to evaluate the rule's compliance with the Paperwork Reduction Act.

Commenters also stated that EPA cannot consider the initial RIA prepared for the enhanced monitoring proposal to qualify as the initial RIA for the CAM rule. These commenters stated that the RIA for the enhanced monitoring proposal was based on data from 1981 and was flawed in other ways. Also, these commenters stated that the RIA for the enhanced monitoring proposal reflected costs and benefits of the enhanced monitoring rule and not the very different costs and benefits that would be associated with the CAM rule.

Some commenters stated that there is an increased need to make the entire RIA, not just the portions published on EPA's electronic bulletin board, available for public comment prior to publication of the final rule because the current CAM draft is significantly different from the 1995 proposal. For example, these commenters noted, the current draft would

allow permitting authorities to subject Subpart C sources to Subpart B requirements, and the impact analysis should reflect the resulting potential increase in costs.

A commenter stated that EPA has failed to address the fundamental question of the need for additional monitoring and has not publicly documented any analysis of the benefit of the rule. The commenter concluded that a cost/benefit analysis must be conducted.

Some commenters also stated that EPA's failure to publish the RIA further supports the position that the CAM "proposal" is procedurally defective and must be published as a proposed rule.

Several commenters recommended that EPA make the Regulatory Impact Analysis available for comments before promulgating the CAM rule. One commenter added that the RIA should be released at least 180 days before the CAM rule is finalized. This commenter strongly recommended that EPA account for the number of additional emission limitations in an RIA if EPA plans to include minor new source review under the CAM rule. Other commenters stated that the failure to release the RIA only causes mistrust and suspicion. Another commenter stated that affected entities should have the opportunity to suggest revisions to the analysis and to use its findings in their assessment of the proposed rule. Two commenters asserted that the overall cost of CAM will be a burden on the States through the Title V program, thus requiring an increase in Title V fees to implement the program.

Response: The initial RIA for part 64 was released with the proposal in October 1993. The Agency received numerous comments on the initial RIA. To assure the broadest possible participation in rule development, EPA made available portions of a revised RIA and accepted public comment on those materials. The portion of the RIA made available contained the bulk of the factual analysis in the document and addressed such issues as what firms would be affected and the size of the impact. Thus, affected parties, to the extent it is relevant to this rulemaking, have had an opportunity to comment on EPA's analysis of the impacts of the CAM approach.

Letter(s): American Gas Association (VI-D-154); American Petroleum Institute (VI-D-146); BP Oil Company (VI-D-113); Chemical Manufacturers Association

(VI-D-152); Chevron Companies (VI-D-132); Cinergy Corp. (VI-D-141); Clean Air Implementation Project (VI-D-153); Coalition for Clean Air Implementation (VI-D-164); Coastal Corporation (VI-D-123); Colorado Association of Commerce and Industry (VI-D-182); Eastman Chemical Company (VI-D-173); Electronic Industries Association (VI-D-137); Independent Liquid Terminals Association (VI-D-178); Louisiana Mid-Continent Oil and Gas Association (VI-D-184); Mobil Corporation (VI-D-115); Ohio Chamber of Commerce, et. al. (VI-D-160); Pennzoil Company (VI-D-133); Phillips Petroleum Company (VI-D-131); Pharmaceutical Research and Manufacturers of America (VI-D-217); Specialty Steel Industry of North America (VI-D-143); Steel Manufacturers Association (SMA) (VI-D-144); Southern Company Services (VI-D-171); Southwestern Public Service Company (VI-D-224); Texas Natural Resource Conservation Commission (VI-D-189); Texas Utilities Services, Inc. (VI-D-121); UCAR Carbon Company, Inc. (VI-D-122)

Section 15.3: Regulatory Impact Analysis (Reopened Comment Period)

Comment a: A commenter argued that because of the length of time it took EPA to place the RIA in the docket, the review period was unreasonably foreshortened and deliberation was curtailed.

Response: The Agency believes that the more than 30-day period for review of the draft portions of the RFA and RIA was adequate to provide meaningful comment.

Letter(s): Council of Industry Boiler Operators (VI-D-263)

Comment b: One commenter stated that the RIA generally understates costs since it failed to consider the impact of the CAM and CE rules working simultaneously, increased stringency of standards, and unique adverse impacts for small and medium sized businesses. A commenter argued that the time allocated to CAM plan preparation in the RIA is inadequate in light of the consequences associated with monitoring decisions under the CE rule. Another commenter agreed generally that the costs of establishing and running monitoring under part 64 is increased by the CE rule, adding that the potential for extended negotiations after public comment or EPA review has not been considered.

A commenter argued that if the final rule does not provide a shield against the use of CAM data in enforcement, the RIA improperly ignores one of the uses of CAM data and is therefore invalid.

Response: The Agency has already responded to comments on the CE rule and potential impacts on stringency in finalizing that rule (see 62 FR 8314, February 24, 1997). Because the Agency does not believe the rule will have the effect of increasing stringency, it disagrees with these comments suggesting that EPA should take into consideration as a regulatory cost of part 64 the concerns of some industry commenters that the CE rule will increase the stringency of underlying rules.

Letter(s): Coalition for Clean Air Implementation (VI-D-249); Council of Industry Boiler Operators (VI-D-263); National Environmental Development Association (VI-D-254)

Comment c: One commenter argued generally that the RIA underestimates costs by relying on liberal interpretations of the 1996 part 64 Draft which would not necessarily prevail. For example, the commenter disagreed with the assumption made in the partial RIA that subpart C of the 1996 part 64 Draft would not result in any costs beyond those incurred as a result of part 70. This commenter noted, and other commenters agreed, that sources subject to these requirements could be required to establish indicator ranges or implement QIPs under the 1996 Draft. A commenter added that the standard for indicator ranges in the RIA was not consistent with the 1996 part 64 Draft. The commenter stated that higher costs would be incurred to establish monitoring designed to assure compliance with applicable limits at all times, and requested clarification of these issues in the final rule. A commenter stated in particular that the relationship between CAM and the CE rule will cause sources to implement more extensive and costly monitoring than that reflected in the partial RIA. The commenter recommended making the rule reflect the RIA's assumption regarding the monitoring required by part 64, but stated that if such changes are not made in the final rule, the RIA must be adjusted to accurately reflect the requirements of the final rule.

Another commenter also expressed concern over the standard for indicator ranges in the RIA. This commenter based its objections to the standard used on both the language of the 1996 part 64 Draft and the

potential for CAM data to be used as credible evidence. This commenter also cited other examples in which the RIA assumed that part 64 imposes no cost over those already established by part 70 for which the 1996 part 64 Draft does seem to create new requirements such as performance testing, recordkeeping, reporting, compliance certification and QIPs. Another commenter agreed that costs should have been allocated for subpart C and QIPs in the RIA.

Response: The Agency believes that the final rule clarifies these issues and that the lack of cost consideration for these issues in the RIA is appropriate. First, the final rule does not include a subpart C and thus those comments are no longer applicable. Second, the QIP provisions have been substantially modified so that it is clear that QIPs are intended as one possible response to a source that has been found in violation. Third, the criteria for indicator ranges have been clarified (see response to section 6.1 (Part III) above), and the Agency believes that the assumptions included in the final RIA are consistent with the requirements of the final rule. For the other cost categories mentioned, the Agency believes that the final RIA adequately estimates the costs EPA expects will be incurred above and beyond the baseline part 70 costs.

Letter(s): Can Manufacturers Institute (VI-D-262); Coalition for Clean Air Implementation (VI-D-249); El Paso Energy (VI-D-257); National Environmental Development Association (VI-D-254); Texas Natural Resource Conservation Commission (VI-D-256)

Comment d: One commenter requested clarification of whether sources with PTE limits are subject to CAM. The commenter explained that if PSEUs that are kept out of Title V and NSR, or RATS and NSPS by add-on controls, process controls, pollution prevention or throughput limitations are subject to CAM, the RIA has not addressed these costs.

Response: If sources are not subject to title V permitting, they are not subject to part 64. However, once a source is subject to title V permitting, individual units will be subject to part 64 if they are subject to applicable requirements (including federally-enforceable PTE limits) for which the owner or operator relies on a control device to achieve compliance.

Letter(s): National Environmental Development Association (VI-D-254)

Comment e: Several commenters noted that the partial RIA does not present a consideration of the benefits of the rule or a description of alternatives to the approach proposed. According to these commenters, without these discussions, EPA has no basis for rejecting their arguments that the costs of CAM outweigh its benefits and the benefits that do exist could be achieved by a less intrusive program. These commenters also noted that omitting the benefits analysis did not meet regulatory requirements.

Commenters also objected to the Agency's failure to provide background information to support the assumptions or data sources used in the RIA such as the sample of emission points used to estimate the costs of implementing CAM.

Response: The EPA is not relying on its benefits analysis in support of part 64 because section 114(a)(3) does not require a cost-benefit analysis for enhanced monitoring and compliance certification regulations.

On the issue of the Agency not providing extensive background information in making the draft cost analysis available to the public in April 1997, the Agency did not intend that draft to be conclusive nor comprehensive on every analytical result. Instead, the Agency intended to respond to stakeholders questions about the methodology used in developing the RIA. Providing extensive background on the values used in that methodology would have been unnecessary. On the other hand, many commenters on that document provided extensive comments on the accuracy of the draft results even without all the background information. All the background information on the development of the RIA is made available at the time the rule is finalized.

Letter(s): Can Manufacturers Institute (VI-D-262); Coalition for Clean Air Implementation (VI-D-249); Institute of Clean Air Companies (VI-D-139); Mobil Corporation (VI-D-248); National Environmental Development Association (VI-D-254)

Comment f: Commenters identified four cost categories for which the RIA reported no incremental CAM costs. The comments indicated that positive, and possibly significant, costs would be incurred by sources due to CAM requirements for these types of costs. The cost categories included: Part

70 costs associated with operating permit requirements; CAM costs for subpart C emission units; CAM costs related to development of a Quality Improvement Plan (QIP); and costs associated with approval and negotiation of CAM monitoring criteria.

Response: Part 70 costs: Comment was offered that future public comment made pursuant to title V procedures would impose additional costs on sources and permitting authorities. The CAM RIA does not include these costs because these costs are more appropriately viewed as part of the existing part 70 requirements.

Subpart C costs: Chapter IV of the draft portions of the RIA released for public comment states that incremental costs for subpart C emission units are not included in the CAM cost analysis because the requirements for subpart C units are intended to be no more stringent than requirements already in place for periodic monitoring under part 70. As described above subpart C is not included in final rule and thus those comments are no longer applicable.

QIP costs: Several commenters suggested that the costs of QIP development and corrective actions be included in the cost analysis. The CAM cost analysis adopts the perspective that sources will maintain compliance with applicable requirements under Compliance Assurance Monitoring. The indicator ranges proposed by source owners or operators should identify problems so that actions to maintain compliance can be initiated in a timely manner. If a source owner or operator does not maintain surveillance of monitoring data, a QIP may be required, but this should not be treated as a cost of the rule. Similarly, the costs of coming into compliance are not separately identified in the RIA. These costs have already received attention in the costing of the underlying applicable requirement.

Approval and Negotiation: Chapter IV of the RIA does not identify separate costs for approval and negotiation of CAM plans for subpart B emission units. The August 1996 draft CAM rule does not identify a specific process for negotiation and approval. The RIA assumes that there will be no incremental costs for these activities. For those source owners or operators who must upgrade or newly install monitoring to meet CAM requirements, the RIA assumes that the effort incurred to identify part 64 monitoring criteria will lead to acceptable monitoring. Note, the

RIA cost analysis provides for incremental costs incurred for revisions should a source or permitting authority determine that criteria initially proposed are too binding or too lenient. Any additional costs for negotiating approval should not be significant.

Letter(s): El Paso Energy (VI-D-257); Mobil Corporation (VI-D-248); National Environmental Development Association (VI-D-254); Utility Air Regulatory Group (VI-D-140)

Comment g: Several comments were concerned with the underestimation of costs in the cost categories for which the draft RIA did report incremental costs. The RIA develops cost estimates based on similar costs identified for other regulations, comparisons with part 70, and expert judgment. The comments generally indicated that the RIA underestimated costs to sources by a factor of five and underestimated costs to permitting authorities by a factor of forty. In particular, commenters expressed concern about a number of specific costs such as those associated with the verification of indicator ranges, costs for acquiring, installing and operating additional hardware, and reporting, recordkeeping and certification costs. The commenters also discussed costs related to permitting beyond the initial negotiation of part 64 monitoring, such as the potential need to reopen or revise permits should changes in the monitoring be required.

Response: The discrepancies cited are due to a confusion on the applicable units of the cost analysis, the incremental burden of CAM above existing part 70 requirements, and the requirements of regulatory impacts analysis to evaluate only the burdens associated with meeting Federal requirements. A key element of all cost estimates is that they represent the *incremental* costs of CAM. For example, costs due to part 70 requirements are assumed to be in the baseline and do not contribute to the costs of CAM. One commenter cited State programs in Ohio and Oregon as proof of underestimates in the CAM Rule RIA. The Oregon monitoring program is a part 70 response to periodic monitoring requirements and will need to be upgraded to meet some CAM requirements. This is an example of the incremental nature of CAM in that the majority of monitoring program costs in Oregon have already been included in the part 70 program costs and, therefore, it is expected that CAM will have a small incremental cost. Rather than confirming a substantial underestimation of the burden on

State and local permit authorities (a factor of forty), the Oregon information tends to support the small incremental burden of CAM above the existing burdens imposed by part 70.

The information submitted based on Ohio's Operation and Maintenance (O&M) Guidelines is misdirected for a similar reason. Ohio's O&M Guidelines were developed to support New Source Review, part 70 and other existing programs. This document was developed in 1992 and is not responsive to CAM. Costs associated with implementing this guidance would be attributable to part 70 or other requirements. Furthermore, should a State elect to implement a program with requirements more rigorous than CAM, these costs cannot be attributed to the Federal rule. For these reasons, these comments also tend to support the incremental nature of CAM.

The CAM costs are intended to represent a typical or average respondent burden. Some examples of CAM costs were based on worst-case assumptions. The estimates in the CAM RIA reflect a mixture of respondent costs based on survey results from the five-State survey. While a limited number of high cost responses are anticipated, responses for some units, such as thermal oxidizers with existing temperature monitoring, will have very low response costs. One commenter produced a per facility cost and used this for comparison with costs in the RIA which reflected costs per pollutant specific emissions unit (cost per pollutant per emissions unit). These approaches will lead to substantially higher estimated costs than those predicted in the RIA.

Letter(s): Coalition for Clean Air Implementation (VI-D-249); El Paso Energy (VI-D-257); National Environmental Development Association (VI-D-254); Mobil Corporation (VI-D-248)

Comment h: Commenters raised questions concerning the completeness and representativeness of the five-State sample that was used to determine the number of CAM pollutant specific emissions units.

Response: With respect to completeness, it should be noted that the complete data bases for the sample States were used to determine the number of potentially affected pollutant points. The random survey of 375 points was conducted to determine how the full set of potentially affected points

would be allocated to the various CAM response categories. As part of the survey, information was also collected on the fraction of potentially affected points that would not be subject to Federal regulation as well as the fraction of points that would be judged to have acceptable existing monitoring systems. The core set of potentially affected points, however, reflects all available data. Since some States did not have complete lists of title V sources as of the date of data collection, supplemental reviews were conducted to add to the set of identified title V sources, and to include other sources in the State data bases that were likely to be subject to title V requirements. EPA has reviewed the final set of affected points and believes that this is a good estimate. Large discrepancies noted by commenters may reflect a misapplication of the applicability conditions.

With respect to the representativeness of the five-State sample, EPA notes that supporting documents prepared for the Enhanced Monitoring docket describe a more complex extrapolation methodology which does take into account the distribution of major sources across States. As a result of the earlier analysis, EPA concluded that the five States provided a representative sample. Furthermore, a multiplicative scale factor equal to the ratio of sample States to all States would be appropriate for extrapolation. With the CAM rule, an additional representativeness test was performed. This test examined the distribution of SIC codes by intervals. With a representative sample, one expects that about 10 percent of all sources in a specific SIC group would be in the five sample States. This result was confirmed for about 15 percent of all SIC categories. For all intervals, the 10 percent interval was the median of the distribution. To provide additional clarification, the RIA for the final rule will identify those two-digit SIC categories for which the five-State sample appears most representative.

Letter(s): National Environmental Development Association (VI-D-254); Texas Natural Resource Conservation Commission (VI-D-256)

Comment i: A commenter also noted that separate costs were not computed for applicability determination by permitting authorities.

Response: This activity was not included in the April 25, 1997 release but is included in the final RIA for part 64.

Letter(s): Texas Natural Resource Conservation Commission (VI-D-256)

Comment j: Comments were also provided concerning the count of municipally owned electric utilities included in the analysis of small government impacts. One comment provided additional information on municipally-owned electric utilities in one of the survey States (Colorado).

Response: Although the commenter provided additional information on small utilities, including minor sources not subject to CAM, none of the information provided affected any of the conclusions regarding burdens on small entities.

Letter(s): Arkansas River Power Authority (VI-D-245)

Section 15.4: Paperwork Reduction Act

Comment a: Some commenters asserted that CAM will result in an increased paperwork burden for both the regulated community and State and local agencies. Two commenters requested that EPA demonstrate how the proposed CAM rule and its increased reporting burden comply with the March 4, 1995 Presidential initiative on eliminating unnecessary recordkeeping and reporting burdens. Another commenter stated that adding new monitoring and reporting requirements, rather than revising existing requirements, does not seem to be in keeping with the Paperwork Reduction Act.

Response: The final Information Collection Request estimates the reporting and recordkeeping burdens associated with part 64. See docket item A-91-52-VI-A-5. The Agency believes that the reporting and recordkeeping requirements in part 64 are appropriate and in most cases reflect baseline requirements already established in part 70.

Letter(s): Cinergy Corp. (VI-D-141); Texas Natural Resource Conservation Commission (VI-D-189); Texas Utilities Services, Inc. (VI-D121); Wisconsin Electric Power Company (VI-D-130)

Section 15.5: Unfunded Mandates Reform Act

Comment a: One commenter stated that CAM triggers Title II of the Unfunded Mandates Reform Act, because it does not meet the requirement that EPA "select the least costly, most cost-effective, or least burdensome alternative that achieves the objectives of the rule."

Response: The EPA believes it has selected the an alternative for implementing the enhanced monitoring requirements that fully complies with UMRA. A full description of EPA's compliance with UMRA is set forth in the final RIA.

Letter(s): Institute of Clean Air Companies (VI-D-139)

Section 15.6: Regulatory Flexibility Act

Comment a: Several commenters stated that EPA must issue and accept comment on an initial Regulatory Flexibility Analysis regarding the draft CAM rule. Some commenters added that the Regulatory Flexibility Act, as amended by SBREFA, requires EPA to issue a detailed regulatory flexibility analysis during the proposal process to allow the public to comment on the impact of the rule. Two commenters also stated that EPA cannot rely on the initial RFA screening analysis prepared for the enhanced monitoring proposal to show that a substantial number of small entities would not be affected by CAM because the CAM approach differs dramatically in applicability from the enhanced monitoring proposal. One of these commenters encouraged EPA to release an initial RFA describing the CAM approach in sufficient time that EPA can thoughtfully review comments it receives and modify the CAM rule appropriately. A commenter stated that with the comment period on the CAM rule closed, any parties who become aware of the impacts of the rule only after publication of the RFA will be deprived of an opportunity to provide meaningful comment on the draft CAM rule. This commenter recommended that EPA accept comments on the substance of the rule during the comment period established for the RFA.

One commenter stated that, among other things, EPA must convene a stakeholder process under SBREFA prior to proposing a rule. In this context, the commenter added, EPA must at least accept the SBA's proposals or explain why they are inappropriate.

Response: The EPA's compliance with the RFA is explained in response to Comment a of Section 15.1 (Part III). No regulatory flexibility analysis or small business panel review is necessary for part 64 because, among other reasons, EPA has certified that there will be no significant impact on a substantial number of small entities. As to the comment concerning the limited nature of the comment period on the RFA analysis, EPA believes the comment period was appropriately limited to issues raised by the RFA analysis. EPA specifically stated that comments related to applicability definitions would be accepted. These definitions determine which sources are covered by the rule.

Letter(s): Chemical Manufacturers Association (VI-D-152); Chevron Companies (VI-D-132); Clean Air Implementation Project (VI-D-153); Engine Manufacturers Association (VI-D-117); Ohio Chamber of Commerce, et. al. (VI-D-160); Pharmaceutical Research and Manufacturers of America (VI-D-217); Specialty Steel Industry of North America (VI-D-143); Steel Manufacturers Association (SMA) (VI-D-144)

Section 16: Guidance

Comment a: A state agency stated that an unnecessary second determination of whether or not the emissions unit is located at a major source seems to be included in figure 1-2, step 10 of the CAM applicability flow diagram in the September 5, 1996 technical guidance document. The agency asked that the diagram and the rule be made consistent.

Response: The guidance will reflect this change.

Letter(s): Ohio EPA, Division of Air Pollution Control (VI-D-180)

Comment b: A local agency requested that the CAM Illustration section of the October 11, 1996 technical guidance document be expanded to include all control equipment codes in the AIRS system.

Response: The Agency intends to include guidance on as much as possible given current resources. The agency plans to further expand the guidance to include more examples including input from State and local agencies and industry once the rule is in effect.

Letter(s): South Coast Air Quality Management District (VI-D-233)

Comment c: One commenter stated that section 4.2.1 of the draft guidance should be expanded to include manual reading of temperature because remote facilities may not have the electrical capacity to use the electronic temperature reading approaches outlined in the guidance.

Response: A number of alternative approaches to measurements will be included as appropriate, including manual methods.

Letter(s): Texaco Environment Health & Safety (VI-D-190)

Comment d: One commenter was concerned about the philosophy that will guide the development of examples. The commenter noted that the idea of having to validate calibration of devices that were previously used as indicators and were done on an as needed basis is not very cost-conscious. In

addition, the commenter added that physical logging of data takes time and converting it to electronic data is expensive and causes additional calibration problems.

Response: The guidance is intended to be sensitive to current practices as much as possible and will take into account cost, where appropriate, in presenting examples.

Letter(s): Wisconsin Electric Power Company (VI-D-130)

Comment e: Several commenters supported generally the expansion of current guidance materials and the development of supplemental guidance materials. Several state and local agencies supported the preparation of a guidance document as discussed in Section II.B.3.a of the proposed preamble. One agency added that this guidance should not be incorporated into the regulation because it will initially need to be changed and improved frequently. A number of agencies suggested that EPA should make supplemental technical assistance available to state and local agencies in order to ensure that CAM is implemented uniformly and in a manner consistent with the issues and policies developed during its formulation. Similarly, an agency association urged that guidance and sample CAM plans should be developed for as many control devices as possible to promote national consistency in the development of CAM plans. Two agencies also supported the standardization of the CAM plan review process through technical guidance, making the need for time-consuming case-by-case review of proposed plans the exception to the norm. A local agency also suggested that the CAM technical guidance document should include information on units subject to Subpart C monitoring.

An industry commenter also recommended that guidance should be provided to state and local agencies using control device performance indicator ranges as enforceable permit requirements if and only when indicator ranges are used directly to determine compliance or noncompliance with applicable limitations or standards.

Two commenters recommended that a complete technical guidance document be made available for public comment prior to promulgation of the final rule.

One commenter requested to be included in stakeholder development of guidance.

Response: The Agency intends to coordinate with affected parties in the development of guidance as the current development of rules demonstrates (e.g., public meetings, distribution of drafts, etc.). To the extent possible within resource limits, the agency will continue this practice and provide as much technical assistance to State and local agencies.

Letter(s): American Gas Association (VI-D-154); Engine Manufacturers Association (VI-D-17); Marathon Oil Company (VI-D-185); NESCAUM (VI-D-192); Pennsylvania Department of Environmental Protection; South Coast Air Quality Management District (VI-D-233); STAPPA/ALAPCO (VI-D-274); State of Illinois EPA (VI-D-183); State of New Jersey Dept. of Environmental Protection (VI-D-215); State of Tennessee Department of Environment and Conservation; Wellman, Inc. (VI-D-237)

Comment f: One commenter suggested specifically that if EPA has not made a draft of the technical guidance document listing examples of continuous compliance determination methods available for comment prior to promulgation of CAM, EPA should defer to any guidance developed by permitting authorities which addresses these issues. The commenter argued that such deferral is necessary because states lack the resources to undertake a case-by-case review of every element of a CAM plan. Another commenter recommended that EPA either publish the list of continuous compliance determination methods as a rule or make sure that the availability of draft guidance is widely noticed and that EPA allow for notice and comment prior to finalizing the guidance (including updates to the guidance).

Response: On August 30, 1996 a draft technical guidance document was placed on the EPA Technology Transfer Network (TTN). Table 1-2 of this document lists examples of continuous compliance determination methods as a resource for permitting authorities to use for CAM monitoring. In the future, the table will be improved and additions will be made as appropriate. Updates and additions to the technical guidance document will be announced and also made available on the EPA's TTN.

Letter(s): Metropolitan Council (VI-D-214); State of Tennessee Department of Environment and Conservation (VI-D-243)

Comment g: An agency association suggested that sample QIPs should be included in the CAM technical guidance document.

Response: The Agency disagrees. Implementation of a QIP is, by necessity, a site-specific response to a particular compliance problem. Preparing guidance on specific QIP examples would be inappropriate. The general description of the QIP in the preamble should suffice as an outline for a site-specific QIP.

Letter(s): NESCAUM (VI-D-192)

Comment h: The same agency association suggested that sample reporting forms like those contained in the Acid Rain Program and the 10/93 Enhanced Monitoring Guidance Document should be included in the CAM guidance document.

Response: The Agency believes that State and local agencies should have the flexibility to describe and define reporting requirements for monitoring as required under part 70, and in many cases, permitting authorities have already done so.

Letter(s): NESCAUM (VI-D-192)

Comment i: One industry commenter urged that EPA develop a guidance document for the development of indicator ranges to ensure that permitting authorities allow flexibility needed to allow for variability of ranges based on design characteristics and site-specific factors. The commenter noted, for example, that the impact of small changes in manifold pressure and manifold temperature on internal combustion engine emission rates will vary considerably.

Response: The commenter is correct in that the applicability of design factors and historical data will be considered and presented in example monitoring in the guidance.

Letter(s): NorAm Gas Transmission Company (VI-D-142)

Comment j: One industry commenter stated that if EPA does not eliminate the section 64.6(a)(4) requirement to conduct monitoring to detect any bypass of a control device or capture system, EPA should develop guidance describing what types and levels of monitoring are necessary to satisfy this requirement.

Response: The guidance will include such examples.

Letter(s): Eli Lilly Company (VI-D-124)

Comment k: A number of commenters stated that the currently available CAM guidance materials are inadequate. One commenter stated that EPA has not provided sufficient examples of existing monitoring that would satisfy CAM requirements. The commenter argued that examples currently posted on EPA's TTN bulletin board are vague, and that EPA has stated that more detailed examples may not be developed until after the rule is issued, but suitable guidance is necessary to assist states with the burdensome process of reviewing existing monitoring. Another commenter stated that if the case-by-case approach used in CAM is to work at all, EPA must prepare, with industry input and prior to rule promulgation, model plans for the most common types of control devices. This commenter noted that such plans will greatly reduce the implementation burdens and improve consistency of implementation.

Another commenter argued that the examples provided in the 9/11/96 CAM technical guidance document do not demonstrate that indicator ranges provide a reasonable assurance of compliance with applicable emission limits and standards. The document's fabric filter example proposes monitoring the parameters of differential pressure drop over the filter and of stack exhaust opacity, but the commenter argued that EPA's example of stack test results which show that all applicable requirements were satisfied over the proposed indicator ranges do not justify the conclusion that the unit will not violate applicable requirements if kept within the indicator ranges. The commenter noted that opacity can vary based on both particulate size and on particulate concentration, and noted further that the same reduction in pressure drop could indicate

either a large hole in one bag or the presence of multiple badly worn bags, even though very different emissions would result from such scenarios.

Another commenter complained that the examples in the guidance document would be very expensive, such as daily Method 9 readings, since many such readings could be required across a facility, such as a rubber manufacturing plant. Opacity monitoring, another option, would likewise be expensive, and recording pressure drop data once per shift could be time consuming, especially in large facilities according to the commenter. Finally, the baghouse example includes two parameters in combination, which the commenter believed to be inappropriate for most cases. This commenter also argued that the text of the guidance document places too much emphasis on testing to establish indicator ranges and noted specific places in the document where the flexibility to propose other approaches must be included. Finally, the commenter stated that the draft technical guidance document could lead permitting authorities to require overly burdensome corrective action plan such as in the example of hourly observations in the appendix to section 3.

Finally, one commenter stated that to improve the current guidance, EPA should develop training programs for local permitting authorities, based on individual source categories, that will help them work with sources to develop reasonable, practical and cost-effective monitoring programs. Based on commenter's experience working with the Part 70 permit program, local permitting authorities often lack in-house technical expertise with regard to the sources they are regulating, and are often unfamiliar with the regulations they are implementing.

Response: The Agency intends to improve and continue improving the guidance document including incorporating experience developed through case studies and actual applications of the CAM rule. As for the commenter's concerns about pressure drop or visible emissions checks of fabric filter operations being insufficient to provide a reasonable assurance of compliance, the Agency believes that the commenter may have overstated the role that indicator ranges are to play in implementing the CAM rule. The Agency recognizes that some variability in the relationship between the levels of measured operational variables and actual emissions will occur and, as such, the indicator ranges are not intended as absolute confirmation of compliance, but as indicative of a reasonable

assurance of compliance given the anticipated range of operations and the design of the control device. The Agency also requires through the CAM rule that excursions from established indicator ranges trigger a prompt inspection and correction to any detected problem to ensure that any periods of uncertain pollution control levels and possible excess emissions are minimized, if not prevented. For the example of the same pressure drop change indicating a single large bag tear or several small bag tears, the Agency would expect that an adequate monitoring combination of pressure drop, frequent visible emissions checks, and other operational monitoring would detect bag tears before one tear became significantly large or before smaller tears developed in more than one bag.

The Agency disagrees that frequent visible emissions checks or monitoring of pressure drop is excessively expensive relative to the cost and operation of the control technology or to the benefits of reducing excess emissions during periods of operation with defective control equipment. The Agency does agree that certain types of monitoring approaches (e.g., COMS) are more expensive than others that may be equally effective (e.g., frequent operating parameter checks) in providing a reasonable assurance of compliance. The rule includes a good deal of flexibility in selecting what parameters will be monitored and how such monitoring will be conducted. This flexibility is intended to mitigate the cost concerns raised by the commenter.

EPA also disagrees that part 64 places too much emphasis on performance testing to establish indicator levels. EPA has scaled back the performance testing contained in the 1993 proposal but believes that generally some minimum amount of performance testing is necessary to insure that the indicator levels established do provide a reasonable assurance of compliance.

Letter(s): Arizona Electric Power Cooperative, Inc. (VI-D-176); Pharmaceutical Research and Manufacturers of America (VI-D-217); RR Donnelley & Sons Company (VI-D-221); Rubber Manufacturers Association (VI-D-149); S. Fitzsimmons (VI-D-201)

Comment I: Some commenters urged that EPA clearly establish that the CAM guidance document provides guidance not requirements. For instance,

they believed that EPA should state explicitly that the guidance lists examples of acceptable monitoring and not presumptive standard monitoring plans. A commenter added that the document should state that cost-effectiveness may be a factor in determining a unit's appropriate monitoring plan. Others added that the document should make it clear that monitoring protocols which are acceptable examples of Subpart B monitoring may be neither necessary nor cost-effective for Subpart C sources.

Response: The Agency will make clear that the guidance document is to provide examples, not requirements.

Letter(s): American Gas Association (VI-D-154); Coastal Corporation (VI-D-123); Colorado Association of Commerce and Industry (VI-D-182); Total Petroleum, Inc. (VI-D-190)

Comment m: One commenter suggested that EPA develop generic flowcharts to be incorporated into the rule which track the process of determining CAM applicability and the steps which must be taken to satisfy CAM. The commenter explained that such flowcharts would promote state-to-state consistency in applicability determination and implementation of CAM. The commenter noted that the complex nature of the current CAM draft makes development of such charts difficult and encloses a sample flowchart for reciprocating engines.

Response: The guidance document will include improved flow charts to reflect the final rule.

Letter(s): LaClede Gas Company (VI-D-198)

Comment n: One commenter cited EPA's request in the draft discussion document for comment on any existing State data availability requirements so that EPA can compile an inventory of such requirements in CAM guidance materials. The commenter stated that it would not be appropriate to use guidelines based on other areas to provide examples for CAM purposes.

Response: The Agency believes that an inventory of existing requirements will serve as a useful resource for developing monitoring approaches. Such an

inventory is not intended as an endorsement or a requirement to use such monitoring for any specific application.

Letter(s): Wisconsin Electric Power Company (VI-D-130)

Section 17: General Comments

Section 17.1: CAM Approach

Comment a: Some commenters expressed general support for the CAM approach, stating that it is preferable to the approach of the 1993 Enhanced Monitoring proposal. Specifically, two commenters stated that the CAM proposal represents a dramatic improvement over the original Enhanced Monitoring proposal.” One commenter stated that it supports EPA’s decision to require monitoring that is indicative of compliance rather than requiring direct measuring of compliance, such as use of CEMS. The commenter added that systems such as CEMS are expensive and difficult to install and use and they provide little, if any, incremental benefit over the use of parametric monitoring systems. Another commenter referred to ways in which CAM improved on Enhanced Monitoring and complimented EPA on the degree of openness it had shown in developing the CAM approach, particularly over the last two years. A commenter expressed general support for the CAM approach and the use of a QIP process to respond to excursions. However, the commenter recommended that the rule be further streamlined to avoid being overly burdensome. One commenter stated that it approved of the general flexibility reflected in some aspects of the rule, specifically the provisions that give permitting authorities permit-specific options relative to CAM requirements.

One commenter discussed the goals of the CAM program. The commenter recommended that the goals of the CAM program include identifying means to minimize emissions and should not be limited to providing a reasonable assurance of compliance. The commenter also recommended that establishing relationships between actual emission rates and control device parameters to be monitored should be a goal of the CAM program. At a minimum, the commenter stated, CAM should require industry groups (with State or EPA oversight) to identify the most critical parameters for process and control equipment performance.

Two commenters stated that they would prefer a direct monitoring approach to the CAM approach. One commenter stressed the importance of EPA’s decisions on CAM, stating that these decisions are crucial since real monitoring and compliance certification bring about improved compliance, which is the most promising source for gains in clean air, and this rule will determine the quality of available emissions data for years to

come. Another commenter stated that a rule requiring direct emissions monitoring would allow sources to recoup costs through improved process control, better operating decisions as a result of better information, and the flexibility to operate closer to emissions limits. CAM does not provide these benefits, which would balance the paperwork and manpower burdens. Such burdens are higher under this rule than they would be with direct monitoring. This commenter also asserted that CAM would result in excessive entanglement of government in private industrial operations, because it would force permitting agencies to become intimately familiar with plant operation. The commenter questioned whether such entanglement is a legitimate function of government. The commenter suggested that direct monitoring of emissions data would keep agencies, appropriately, at arms length from plant operation. In supplemental comments this commenter reiterated its recommendation that part 64 require direct monitoring. The commenter stated that given the small number of sources subject to Subpart B of the 1996 part 64 Draft according to the partial RIA, monitoring correlated with actual emissions could be required at little extra cost relative to the additional benefits that would be obtained.

Response: The Agency believes that the CAM approach is a reasonable means of fulfilling the statutory requirement to promulgate rules on enhanced monitoring and compliance certification. The Agency disagrees that the goal of the program ought to be more than providing a reasonable assurance of compliance. With respect to direct emissions monitoring, the Agency believes that there is a role for that type of monitoring, but that a broad, cross-cutting rule such as part 64 is not the appropriate vehicle for requiring such monitoring. Finally, the Agency does not believe that the rule will involve excessive entanglement of agencies with industrial activities. The structure of the rule is based on similar compliance monitoring provisions that already exist under some applicable requirements, such as NSPS and NESHAP requirements. See Section I.C. of the preamble to the final rule for further discussion of these general issues.

Letter(s): Arizona Electric Power Cooperative, Inc. (VI-D-176); Chemical Manufacturers Association (VI-D-152); Colorado Association of Commerce and Industry (VI-D-182); Department of Energy (VI-D-196); Dow Chemical Company (VI-D-120); Fertilizer Institute (VI-D-253); Independent Liquid Terminals Association (VI-D-178); Institute of Clean

Air Companies (VI-D-139); Institute of Clean Air Companies (VI-D-247); Natural Resources Defense Council (VI-D-151); Pacific Gas Transmission Company (VI-D-230); Pennsylvania Chamber of Business and Industry (VI-D-114); Questar Corporation (VI-D-220); Southwestern Public Services Company (VI-D-224); State of New Jersey Dep. of Environmental Protection (VI-D-215)

Section 17.2: General Comments on the Current Proposal

Comment a: Some commenters stated that the current CAM draft is an improvement over the 1995 draft. One commenter stated that with some important changes, CAM will be a workable approach to enhanced monitoring and compliance certification. A State agency commenter stated that it believes the current draft is less resource intensive than the original proposal and will be more environmentally beneficial through the use of properly established and monitored parameters. Two commenters specified that revising the three tier classification in the applicability section into two Subparts, EPA streamlined and clarified the applicability provisions. Another commenter complimented EPA on the degree of openness it has shown in developing the CAM approach, particularly over the last two years. One commenter noted that the rule remains ambiguous as to how it will be applied to sources by local permitting agencies.

Response: No response is necessary to most of these comments. The Agency believes that the applicability provisions and design criteria in the final rule properly indicate how the rule will be implemented.

Letter(s): Air Products and Chemicals, Inc. (VI-D-186); American Electric Power (VI-D-129); Arizona Electric Power Cooperative. Inc. (VI-D-176); Chemical Manufacturers Association (VI-D-152); Department of Energy (VI-D-196); Independent Liquid Terminals Association (VI-D-178); Natural Gas Pipeline Company of America (VI-D-118); Pennsylvania Department of Environmental Protection (VI-D-174); STAPPA/ALAPCO (VI-D-179)

Comment b: Some commenters stated that the current draft is less favorable than the direction EPA appeared to be taking in the September 1995 draft. Commenters stated that they had supported the original CAM concept of a shift from direct emissions monitoring to a program designed to ensure

that good O&M practices were followed. However, they stated that the current rule is more akin to the Enhanced Monitoring proposal with wide applicability to units having little environmental significance and with stringent thresholds that trigger violations rather than corrective action. Another commenter stated that improvements in compliance assurance can be achieved by fully implementing existing monitoring programs. The draft rule therefore does not "focus on situations where existing requirements fail to assure ongoing compliance . . ." as stated in the Sept. 1995 preamble.

Some commenters also stated that EPA's intent, as expressed in the preamble or otherwise, is often not reflected in the language of the proposed rule itself. Two commenters stated that the CAM concepts set forth in the preamble of the proposed rule, of focusing on improved control technology, operation and maintenance, and reduced burdens on small sources are undermined by the draft rule's enforcement-related concepts that result in much greater source burden and, when coupled with the credible evidence approach, expose the industry to unwarranted enforcement activity. These commenters also stated that the preamble provides three criteria for determining when equipment that in some cases would be considered a control device is more akin to an inherent part of the process, and thus exempt from Subpart B requirements. The commenters agreed that these criteria are appropriate but noted that the rule itself contains no mention of these criteria. As another example, the commenters stated that the preamble expresses an intent that not all deviations constitute permit violations; however, this intent is contravened by the rule's authorization of states to make deviations enforceable regardless of whether they constitute violations of the underlying standard.

In support of their argument that the rule does not reflect EPA's intent as expressed in the preamble or other statements, the same commenters noted that the preamble characterizes the CAM approach as providing a reasonable assurance of compliance, but the rule text departs from that goal in such "penalty box" provisions as requiring compliance certifications to include QIP periods as deviations and providing that a second QIP in a permit term constitutes a direct violation of CAM. The commenters added that throughout its discussions with industry regarding CAM, EPA has supported a shield from credible evidence enforcement to sources that abide by their CAM plans. In the discussion of CAM's

relationship to credible evidence and enforcement issues (sections I.D.1 and I.D.3.a of the document accompanying the 1996 part 64 Draft), EPA states that units operating within their CAM parameters will be presumed to be in compliance and not targeted for enforcement proceedings. The text of the rule itself does not provide any statement of these protections or a CAM shield. The commenters further stated that Section II.G of the draft preamble states that EPA has limited the CAM elements that have to be incorporated in a part 70 permit. In contrast, the actual rule language requires that a wealth of detail be incorporated into the permit.

Another commenter, stating that the CAM rule does not reflect EPA's intent as expressed in the preamble or other statements, objected to the use throughout the rule of the terms "practicable" and "feasible." These words are typically interpreted by courts to mean "capable of being done" rather than meaning "practical" and "reasonable," which commenter believes to be EPA's intent. The use of these terms means that courts will give almost no consideration to cost so the terms "practical" and "reasonable" should be used instead.

Some commenters recommended that the CAM rule be redrafted to clear up ambiguities. One commenter stated that the CAM rule is somewhat ambiguous in its construction, has multi-tiered cross-references, and could be better organized. The commenter added that it is understandable that the rule's draftsmanship has suffered because it has been subject to considerable political and substantive revision. The CAM technical guidance document is extremely clear, but it cannot substitute for clarity in the rule itself. The commenter stressed the importance that the rule be understood because the rule represents an important step in air pollution control. Two commenters provided minor edits to several sections to clarify the rule's intent.

Response: As discussed above in Sections 1-12 (Part III) of this document, the final rule includes a number of rule changes that both clarify the intent and process for implementing part 64. The sections have been reorganized to track the process for implementing the rule. This restructuring has improved the rule's organization. As discussed in sections 6 and 8 (Part III), the process for establishing indicator ranges has been clarified consistent with EPA's stated intent for the CAM approach. The Agency disagrees that it has supported a shield against enforcement actions for sources that meet part 64. This was not presented as an option in either

the 1995 or 1996 part 64 drafts. For other comments that oppose specific provisions in the 1996 part 64 Draft, see the responses included for such comments in the relevant substantive sections of this document.

Letter(s): Chemical Manufacturers Association (VI-D-152); Dow Chemical Company (VI-D-120); Eastman Chemical Company (VI-D-173); General Electric Company (VI-D-156); Phillips Petroleum Company (VI-D-131); Specialty Steel Industry of North America (VI-D-143); State of Washington Department of Ecology (VI-D-167); Steel Manufacturers Association (SMA) (VI-D-144); Texaco Environment Health & Safety (VI-D-199); Texas Title V Planning Committee (VI-D-188)

Section 17.3: Complexity and Clarity of CAM

Comment a: Some commenters asserted that the CAM rule is unnecessarily complex. Two commenters recommended that the rule be simplified so that sources and States can understand and follow the process for developing and implementing CAM monitoring. Another commenter stated that the draft CAM rule has strayed from the original concept of focusing on good operation and maintenance of control equipment by focusing instead on acceptable numerical indicator ranges, deviations from which would likely be considered violations. Under this approach, short term and sometimes continuous measurements are inappropriately expected to serve as a proxy compliance demonstration for periodic compliance demonstrations. The commenter concluded that the resulting approach is overly complex. Two commenters stated that the current CAM draft utilizes many undefined terms and contains numerous cross-references to other rules and other documents, resulting in an extremely complicated rule that leaves room for varying interpretations from State to State. These commenters added that there will be no way to predict how CAM will be implemented in any given State. The commenters urged EPA to simplify the rule, clarify existing definitions and add further definitions in order to minimize potential variations in interpretation. One commenter stated that nothing in the legislative history suggests that Congress intended for the rules to be as prescriptive as drafted, and recommended that EPA give States more leeway in determining the appropriate level of monitoring and how to interpret deviations from indicator ranges. A commenter also expressed the belief that EPA has underestimated the cost and burdens that are likely to occur as a result of CAM.

One commenter stated that because compliance with and enforcement of complex regulations is difficult and expensive, EPA should promulgate the simplest rule that meets the requirements of section 114(a)(3). The commenter further stated that CAM is more complex than a requirement to directly monitor emissions. A commenter from the natural gas industry stated that CAM will create costly new applicable requirements that are no different or less substantive than work practice standards currently used. The commenter added that EPA has incorrectly assumed that current programs do not require and the industry does not pay appropriate attention to control device performance. The commenter added that EPA should at least provide substantial evidence of such inadequacies before imposing burdensome new requirements on the industry.

One commenter, arguing that the CAM rule is unnecessarily complex, stated that the CAM proposal is an example of EPA micro management, which places the burden of compliance on applicants and State agencies. The commenter summarized the requirements of the CAM proposal as follows: a Title V permit applicant is required to divide its site into various emissions units and analyze each unit on a pollutant by pollutant basis. An applicant must develop and gain approval of a CAM plan for each combination of emission unit with a control device, applicable requirement and regulated pollutant. The burden is on the applicant to justify in writing that its proposed CAM plan will satisfy the requirements of the rule. The applicant is then subject to both technical judgments, which may vary from an applicant's applicability analysis, and inconsistent determinations by permit writers. Finally, the State agency and its permit writers must go through burdensome and time-consuming case by case reviews.

Response: The Agency has restructured the final rule to simplify and clarify implementation of part 64. The final rule does continue to rely on part 70 definitions, as well as implementation on a pollutant-specific emissions unit basis. However, the rule only applies to part 70 major sources. Such sources should have a clear understanding of part 70 definitions, and are required to submit applications that identify emissions units and air pollution control equipment. Thus, the Agency believes that reliance on these part 70 concepts will streamline implementation, not add complexity as some commenters suggested.

EPA does not believe that the alleged simplicity of requiring direct emission monitoring is a justification for abandoning the CAM approach. EPA moved to the CAM approach is much less costly than direct emission monitoring. Moreover, for units with control technology, EPA believes that forcing sources to pay attention to such technology, as the CAM approach does, can be more effective than direct emission monitoring for reducing emissions because monitoring control technology will often identify the reason for excess emissions. If complexity is a concern for source owners and operators as to CAM, they have the option of adopting direct emissions monitoring to satisfy part 64. EPA also does not agree that CAM will create costly new applicable requirements that duplicate existing work practice standards. First, part 64 would apply to work practice standards only to the extent that a source owner or operator relied upon control technology to comply with the statute. Second, if requirements for monitoring such control technology already exist, these monitoring requirements can be part of the CAM plan and thus should not impose major new costs. As to whether there is a need for enhanced monitoring of major sources, EPA would note that Congress has already made that determination. Finally, EPA disagrees with the commenter who suggests that CAM is too complex because of the allegedly burdensome case-by-case review by the permitting authority. Part 64 was designed to give source owners and operators flexibility in establishing monitoring plans and does so by establishing general criteria for monitoring and not, as the commenter suggested, through EPA micromanagement. However, because part 64 is not overly prescriptive and gives source owners and operators broad latitude, of necessity there must be a case-by-case review.

Letter(s): Centerior Energy (VI-D-134); Clean Air Implementation Project (VI-D-153); Engine Manufacturers Association (VI-D-117); Gas Processors Association (VI-D-163); Institute of Clean Air Companies (VI-D-139); LaClede Gas Company (VI-D-198); Ohio Chamber of Commerce, et. al. (VI-D-160); Rubber Manufacturers Association (VI-D-149); UCAR Carbon Company, Inc. (VI-D-122)

Section 17.4: CAM Rulemaking Process

Comment a: Some commenters expressed general support for EPA's efforts in the CAM rulemaking. Two commenters commended the EPA staff for their extensive efforts to solicit the viewpoints of all interested stakeholders during the development of the CAM program. Two commenters also stated that they support the general approach set forth in the CAM rule. One commenter expressed support for the goals of the program, but believes that the relationship of the monitoring to compliance needs to be strengthened. A State agency commented that it found little objectionable in the proposed rule and noted that, although the CAM rule has been long in the making, "the time has not been wasted."

One commenter opposed the stakeholder process that EPA has used, stating that the process has given unfair treatment to selected groups. The commenter stated that using a front table with seating for others in the back has unfairly given weight to the views of a small group of participants at the disadvantage of others. The commenter recommended that EPA return to standard public meetings where everyone is accorded the same ability to be heard.

Response: The Agency has attempted to provide as much opportunity as possible for interested parties to participate in the part 64 rulemaking process, and believes that these efforts have been successful. The Agency believes that the public meeting formats effectively stimulated discussions while still allowing anyone that wished to be heard to provide input to the Agency.

Letter(s): Clean Air Implementation Project (VI-D-153); NESCAUM (VI-D-192); Pacific Gas Transmission Company (VI-D-230); Phillips Petroleum Company (VI-D-131); The Society of the Plastics Industry, Inc. (VI-D-148); State of Washington Department of Ecology (VI-D-167)

Section 17.5: Other General Concerns

Comment a: One commenter argued that CAM creates a conflict between public access to emissions data and the regulated community's right to protect trade secrets. The commenter stated that section 114(c) of the Act, which requires that records, reports or information obtained under section 114(a) shall be available to the public, makes "methods or processes entitled to protection as trade secrets" confidential but excludes "emission

data" from such confidentiality. For some sources, process data that constitutes confidential business information may be the only emission data collected under CAM. The commenter added that the use of direct emissions measurement technologies and methodologies would allow full disclosure of emission levels without compromising the confidentiality of trade secrets.

Response: Data on excursions or exceedances cannot be protected as trade secrets under the Act. Owners or operators will have to evaluate trade secret concerns in developing and proposing monitoring to satisfy part 64.

Letter(s): Institute of Clean Air Companies (VI-D-139)

Comment b: A commenter argued that CAM and other EPA regulations and actions favor electric utilities over alternative energy providers and other sources. The commenter stated that the Act's permit structure favors electric utilities, the worst polluters. The structure is such that the more a stationary source pollutes, the less it pays per unit. Lignite-fueled electrical generating plants pay as little as a few cents per ton of pollutant emitted while sources, such as natural gas utility customers, pay \$25 per ton up to 4,000 tons. The commenter provided graphs based on Texas and Missouri emissions inventories. The commenter also stated that the CAM Subpart B applicability provisions apparently assume that a unit will operate for 8,760 full-load run-hours per year and do not take into account emissions controls. This places smaller engine-driven systems at a competitive disadvantage, because such systems normally run for far less than 8,760 hours per year. The commenter provided a table showing average size and yearly hours of operation for such systems. The commenter further stated that EPA should not attempt to regulate small stationary sources, such as alternative energy providers, out of business so that regulatory efforts can be focused on the remaining large sources. The commenter stated that the contemplated EPA standards for internal combustion engines are an example of this approach. Such an approach could have dangerous environmental consequences. The commenter enclosed charts illustrating projected increases in CO₂ from traditional coal-burning electric utilities and the comparative advantage in emissions reductions of using natural gas-fueled end-use technology.

Finally, the commenter stated that control or monitoring of NO_x may be inappropriate in some circumstances. The commenter cited a National Academy of Sciences Report, which suggests that decreasing NO_x can actually increase ozone where there is a low VOC/NO_x ratio. The commenter stated that NO_x control and monitoring may therefore not be appropriate for ozone non-attainment areas where such a ratio exists. The commenter noted that the Missouri DNR has submitted a waiver application for St. Louis to EPA reflecting this approach, and suggested that CAM also reflect this approach.

Response: Most of the commenter's concerns are beyond the scope of this rulemaking. However, the Agency notes that the final rule applies only to emissions units that are subject to applicable requirements and are required to install a control device to achieve compliance. Thus, many of the types of stationary sources discussed by the commenter are unlikely to rely on control devices and thus will not be subject to part 64.

Letter(s): LaClede Gas Company (VI-D-198)

Section 17.6: Comments on Credible Evidence Rulemaking

Comment a: Several commenters expressed general opinions on the credible evidence rulemaking. One commenter expressed support for EPA's position that, under the CE rule, the plaintiff would have the burden of showing that, if a compliance test had been conducted during the time period covered by the evidence, the test would have shown a violation. Another commenter stated that it supports the use of data other than reference test method data for enforcement actions arguing that using other credible evidence will provide additional flexibility in ensuring that sources are complying with applicable emission limits. A State agency commenter agreed that EPA has the authority to use credible evidence to enforce standards under the 1990 CAAA and noted that the use of such information for enforcement purposes has always been allowed under the State's applicable statutes.

A utility commented that the credible evidence rule will have a chilling effect on the regulated community and will discourage additional monitoring and recordkeeping. Other commenters objected to the use of credible evidence to determine actual violations of the Act; one

commenter added that it considers the credible evidence approach to be unwise, unnecessary, overreaching, and redundant in light of EPA's other enforcement powers. Another commenter suggested limiting credible evidence to "any scientifically verifiable evidence."

A commenter noted that removing CE from the CAM context does not solve any of the problems industry has with the credible evidence initiative. The commenter also objected to the lack of full notice-and-comments in the promulgation of CE. Another commenter cited to the Unitek decision as an example of how opening the door to credible evidence will allow any information, regardless of its comparability to test data, to be used to prove noncompliance as long as it is admissible under the Rules of Evidence. This commenter stated that if EPA means for credible evidence to be something more than ordinary evidence, it must clearly say so.

One commenter stated that the credible evidence revisions are based on a misreading of section 113 which pertains to penalty assessment criteria that may be used once it has been determined that a violation occurred. This commenter argued that evidence other than the test method can be used, if at all, to determine the duration of a violation which is merely one of seven factors in penalty assessment, and that legislative history is not relevant since the statutory language is clear. The commenter referred to previous discussion of this point by another commenter.

One commenter recommended defining compliance methods that are considered credible evidence for an underlying requirement either by rule and/or in a permit, so that the regulated community, the public, and permitting authorities know which compliance methods are associated with an underlying requirement.

One commenter noted that the potential to use operating parameters as credible evidence of a violation is suspect because of the often weak correlation of parameters and emissions. The commenter referred to detailed correlation studies conducted at the commenter's sewage sludge incinerators (see detailed summary under section 6.1 (Part III)). The commenter also noted that the egregious acts which led to the violations cited in the Sierra Club v. PSC case left absolutely no doubt that the facility was in violation, but that in most cases where credible evidence might apply, the cases of noncompliance are not so clear cut.

Some commenters expressed support for EPA's suggestion in the preamble to the 8/2/96 CAM proposal that the categories of "presumptively credible evidence" be eliminated from the credible evidence revisions to 40 CFR Parts 51, 52, 60 and 61. Two commenters expressed support for the elimination of presumptively credible evidence. One of these commenters added that, although it is not in favor of the credible evidence revisions, the commenter agrees that it is not appropriate to presume that CAM excursions are credible evidence of a violation.

One commenter requested that EPA confirm that credible evidence could not be used to show a violation when the time period covered by the evidence is less than that required to conduct the test or when the source is operating under conditions that are outside those defined in the test method.

A commenter expressed concern with the impact that the credible evidence rule will have on compliance with hourly emission rates derived from AP-42 emission factors which have been incorporated into many SIPs. The commenter suggests that for such emission limits which do not specify an averaging period, it would be appropriate to assume a one-year period. The commenter expressed a similar concern about the lack of startup, shutdown or malfunction excused periods in many states which becomes an important issue when the credible evidence rule is considered.

Finally, several commenters incorporated by reference comments that they had submitted to the docket in response to the March 1996 credible evidence paper.

Response: No response to these comments is necessary because these comments are directed at the credible evidence rulemaking promulgated on February 24, 1997 (62 FR 8314). See the Response to Comments Document for the Credible Evidence Rule (docket item A-91-52-V-C-2) for a response to comments raised in the context of that rulemaking. To the extent any of these comments concern the relationship of part 64 to the CE rule, see the response to comments under Section 14.2 (Part III) of this document.

Letter(s): American Furniture Manufacturers Association (VI-D-203); Chemical Manufacturers Association (VI-D-152); Council of Industry Boiler Operators (VI-D-263); Department of Defense (VI-D-209); Georgia Department of Natural Resources (VI-D-193); General Electric Company (VI-D-156); Integrated Waste Services Association (VI-D-147); Kennecott Corporation (VI-D-119); Metropolitan Council (VI-D-214); Mobil Corporation (VI-D-115); NorAm Gas Transmission Company (VI-D-142); Public Service Company of Colorado (VI-D-219); Rubber Manufacturers Association (VI-D-149); Specialty Steel Industry of North America (VI-D-143); STAPPA/ALAPCO (VI-D-179); Steel Manufacturers Association (SMA) (VI-D-144); Southwestern Public Services Company (VI-D-224); Texas Natural Resource Conservation Commission (VI-D-189); Texas Utilities Services, Inc. (VI-D-121); United Technologies Corporation (VI-D-251)

Section 17.7: Benefits and Burdens of CAM Rule

Comment a: Some commenters stated that CAM will require excessive monitoring that provides little benefit to the environment. Two commenters added that, contrary to OAQPS's goal of creating a cost-effective rule which provides reasonable assurance that Title V sources comply with permit terms and applicable requirements, the current CAM draft requires the regulated community to engage in the costly collection and analysis of monitoring data that is of little use to determine whether sources are actually complying with environmental standards. Another commenter stated that the value of the CAM rule is questionable in light of heightened compliance oversight through the Title V program and new compliance tools resulting from the 1990 CAA Amendments. In the 1990 Amendments, Congress increased the civil and criminal penalties for violations, gave EPA administrative penalty authority, added a field citation penalty program, etc. Although CAM implements the periodic monitoring requirement of Title V, it also grafts a significantly more burdensome monitoring and reporting overlay onto the Title V program. One commenter added that EPA has not shown that there is an endemic problem with the adequacy of current monitoring, or that a major new program is needed to fix any such problem. As demonstrated in the docket over the past few years, the existing programs are designed with appropriate monitoring and where those fail due to inadequate monitoring, they are self-correcting.

Some commenters noted that the CAM rule will be a significant burden. An industry association stated that one facility had estimated the cost for maintaining a CAM program in excess of \$50 thousand per year. Another commenter stated that CAM will result in increased program fees, but will have little environmental benefit.

One commenter argued that there is no demonstrated need for the CAM rule. The commenter stated that an additional monitoring rule would not be needed if current regulatory programs that require monitoring and data-gathering were fully implemented. The commenter added that this is supported by the EPA white paper on "paying attention" to good O & M practices, which concludes that the actual use of excess emissions reports which already must be submitted to EPA could accomplish many of the goals of CAM. In supplemental comments, one commenter questioned the value of applying CAM requirements to sources that already conduct continuous "excess emissions" monitoring since EPA has already promulgated the CE rule to ensure that such data are available for emission limit enforcement. The commenter also stated that the CAM rule is unnecessary because companies have existing voluntary programs to properly operate and maintain control devices. These programs exist because companies already have incentives, such as increasing the life of a control device, to conduct good O & M. The commenter noted that EPA examples show that good O & M can lead to direct cost reductions and a reduction in upsets that result in public or regulatory scrutiny. The commenter urged EPA to consider that customer demands and organizations like the ISO can create additional incentives for such voluntary programs, like CMA's "Responsible Care" program. Such programs can satisfy the objectives of CAM even if they do not cause the same results as CAM.

In support of its argument that there is no demonstrated need for the CAM rule, a commenter stated that EPA has acknowledged that it is better to fill gaps in regulatory monitoring requirements through individual rulemakings than through a broad rule like CAM through EPA's exempting NSPS and NESHAP adopted after 1990 from CAM. As proposed, the CAM rule will only require permitting authorities to revisit old rules. This is unnecessary because NSPS must be revised at least every eight years. Since all pre-1990 NSPS will be re-examined by 1998, these standards can be revised before the CAM program can be fully implemented. NSPS standards also already require control device parameter monitoring,

excess emission reports, and subject sources to a general duty provision. In states with NSR programs, almost all activities subject to NSPS are also subject to NSR permitting and a BACT demonstration. NESHAPs do not need to be re-examined under CAM because Part 61 standards already include monitoring requirements and a general duty provision. NESHAPs are also being largely replaced by MACT standards.

Finally, in support of its argument that the CAM rule is unnecessary, a commenter stated that it is unnecessary to subject SIP provisions to CAM requirements because SIPs should already be designed to allow areas to attain the NAAQS. Any SIP provision that does not achieve this goal should be revised to address monitoring and O & M concerns. The commenter cited examples from EPA's "paying attention to good O & M" document of SIP provisions from the following States or regions that satisfy the goals of the CAM program: Texas, the Bay Area Quality Management District, Ohio, Georgia, Florida, Indiana, Wisconsin, and Oregon. The commenter noted that States have complete discretion to develop programs necessary to satisfy the NAAQS and that EPA can reject inadequate SIP submittals but cannot require a wholesale revision of SIP provisions as contemplated under the CAM rule. The commenter cited a number of cases limiting EPA's ability to interfere with or circumvent approved SIP provisions, including Train v. NRDC, Bethlehem Steel v. Gorsuch, and U.S. v. Riverside Labs.

Some commenters stated that the proposed CAM rule lacks the flexibility to allow States to continue pre-existing State programs that provide the same outcome as CAM. One State agency commenter expressed support for many of the principles of the CAM rule, but noted that many of these principals overlap with the State's own program. The CAM rule does not allow States to run such pre-existing programs independently of CAM and therefore results in redundancy and an increased administrative burden for the State agency and the regulated community of the State. The commenter provides the following examples of overlap between the State program and CAM: (1) Minn. R. 7011.0075, Control Equipment General Requirements, requires sources to submit the same general information relating to the monitoring of control equipment performance and reporting of deviations as must be submitted in a CAM plan; (2) The State has an established mechanism to handle noncompliance of control equipment operation. Minnesota rules require facilities to report deviations from monitored control equipment parameters semiannually. The MPCA

Compliance Determination Unit then reviews these deviation reports to determine compliance and makes recommendations on the appropriate follow-up to the Enforcement Unit. The CAM rule's QIP requirements merely address the same problems while adding an administrative burden; (3) The QIP requirements also limit State options of interpreting when a violation occurs and when the permitting authority should take action; and (4) State requirements relating to the reporting of planned shutdowns, breakdowns and failures of control equipment (e.g., Minn. R. 7019.1000) satisfy CAM requirements to notify permitting authorities of problems with control equipment. The commenter proposed that CAM be revised to allow States the opportunity to selectively incorporate the elements of CAM needed for their programs and suggests that this procedure could be administered by EPA regional offices. Also, an industry commenter from California noted that many elements of the CAM rule are unnecessary for Subpart B units in Southern California because facilities containing such units are already required to show that they comply with the stringent air quality regulations implemented by local air pollution control districts.

Response: The Agency disagrees with comments that suggest that part 64 is unnecessary. Congress has mandated in section 114(a)(3) that EPA impose enhanced monitoring and compliance certification requirements. Thus, Congress has already settled the question of whether there is a "demonstrated need" for enhanced monitoring and compliance certifications. In addition, the final rule focuses on units that rely on control equipment to remain in compliance, which previous studies have shown to be significant compliance problems. See the documents referenced in the final preamble on this subject. With respect to existing State programs, the final rule should allow existing approaches that are similar to part 64 to be used in satisfying part 64. In the Minnesota example, the submittal and reporting requirements of part 64 should be able to coordinate with the existing State provisions. The QIP provisions in the final rule have been modified in response to concerns similar to those revised in those comments.

Letter(s): Alyeska Pipeline Service Company (VI-D-126); American Furniture Manufacturers Association (VI-D-203); ASARCO Incorporated (VI-D-187); Can Manufacturers Institute (VI-D-181); Coalition for Clean Air Implementation (VI-D-249); Coastal Corporation (VI-D-123); Independent Liquid Terminals Association (VI-D-178); Minnesota Pollution Control

Agency (VI-D-197); Public Service Company of Colorado (VI-D-219); Southern California Gas Company (VI-D-222); Tennessee Valley Authority (VI-D-162); Texas Title V Planning Committee (VI-D-188); Utility Air Regulatory Group (VI-D-252)

Section 17.8: Delegation of Authority to States

Comment a: Some commenters stated that the CAM rule delegates the resolution of too many important issues to the States. For example, some commenters pointed out that States have complete discretion to determine which parameters are appropriate to be monitored, to identify appropriate indicator ranges, and to determine which, if any, of the resulting conditions will be enforceable permit terms. The broad delegation to the States will cause inefficiencies and create inconsistent CAM requirements among States. Those inconsistencies could result in different requirements for facilities that are part of the same company located in different States and could lead to a competitive disadvantage for companies in States with more stringent and costly requirements. A commenter recommended that EPA enhance through rulemaking the particular monitoring requirements that it deems inadequate. Under the draft CAM rule "standards" will no longer be standards at all since stringency will vary from State to State and from point to point. Likewise, the commenter recommended that States use rulemaking to enhance monitoring for SIPs that are not capable of demonstrating compliance. According to this commenter, the CAM rule, if promulgated, should only be a temporary measure in effect until changes to underlying rules can be made.

Some commenters cited specific provisions where the CAM rule improperly leaves the resolution of important issues to the States: § 64.2(a)(2), where States may apply Subpart B to any other pollutant-specific emissions unit they deem appropriate; § 64.3(b)(2)(ii)(B), where States may establish, consistent with existing authority, that an excursion from an indicator range is a failure to comply with the source's part 70 permit; § 64.7(a)(5), in which States are given discretion to add any other elements to CAM plans; § 64.9(a)(3), where permitting authorities may include all CAM plan monitoring elements deemed necessary in a Subpart C unit's part 70 permit; § 64.9(c)(1), where permitting authorities may require sources to base monitoring on a

performance test instead of relying on engineering assessments and manufacturer's recommendations as justification for the monitoring; § 64.9(c)(2)(iii), where permitting authorities have the discretion to determine whether no monitoring is appropriate for certain insignificant activities; § 70.6(c)(5)(iii)(D), in which certifications are to be based on whatever facts the permitting authority may require; and the treatment of insignificant activities (as defined in State Part 70 permit programs) under the CAM rule. One commenter added that States are currently determining what monitoring is required under Part 70 periodic monitoring requirements in their Title V programs. Although the CAM rule will remove these requirements, there will be inconsistencies between the developed State programs and the final CAM requirements.

In support of their argument that the CAM rule delegates the resolution of too many important issues to the States, some commenters stated that fundamental principles of constitutional law require that the CAM regulations do not exceed the grant of statutory authority in sections 114(a)(3) and 504(a) and (b). EPA cannot avoid this constraint by subdelegating its rulemaking authority to State and local agencies. The rule must therefore establish standards that act to limit those agencies in establishing requirements under CAM. These commenters further stated that EPA has no mechanism for reviewing and approving the States' creation of federally-enforceable requirements through CAM, because the draft CAM proposal does not require EPA review and approval of States' CAM programs. The commenter recommended that the final rule either include such a mechanism or provide that any additional requirements beyond the minimum required by CAM are State-only requirements. Finally, the rule raises State constitutional issues in that it could be interpreted to grant State agencies legislative rulemaking authority that must first be granted by a State legislature, not a federal agency.

Response: The final rule establishes specific criteria to be achieved to satisfy part 64. If an owner or operator meets these criteria, the owner or operator has satisfied part 64. If the owner or operator believes that a permitting authority has improperly disapproved monitoring, the owner or operator may appeal that action through the appropriate mechanisms established under title V permit programs. Nearly all of the 1996 part 64 Draft provisions cited specifically by the commenters are not included in the final rule (including §§ 64.2(a)(2), 64.3(b)(2)(ii)(B), 64.7(a)(5), 64.9(a)(3), 64.9(c)(1), and 64.9(c)(2)(iii)). The treatment of insignificant activities

also is not addressed in the final rule. The only specifically cited provision that is included in the final rule, § 70.6(c)(5)(iii)(D), is a provision that exists in part 70 as originally promulgated in July 1992. Therefore, the Agency disagrees that the final rule either improperly delegates rulemaking to the States or interferes with title V implementation.

Letter(s): American Automobile Manufacturers Association (VI-D-157); American Public Power Association (VI-D-158); BP Oil Company (VI-D-113); Eli Lilly Company (VI-D-124); General Electric (VI-D-156); Kennecott Corporation (VI-D-119); National Environmental Development Association (VI-D-169); Pharmaceutical Research and Manufacturers Association (VI-D-217); State of New Jersey Dept. of Environmental Protection; UCAR Carbon Company, Inc. (VI-D-122)

Section 17.9: Implementation Concerns and Recommendations

Comment a: One commenter expressed concerns about how to effectively implement CAM in certain situations. The commenter asked how CAM should be implemented for particulate matter during excursions that occur due to exempted emissions (i.e., sootblowing). The commenter noted that some States have a separate particulate standard for sootblowing, and stated that CAM will apparently require special recordkeeping and tracking for such exempted operations. The commenter also asked how a source would implement CAM for area-wide fugitive emissions and site-specific sources like conveyor belts, which may have opacity limits under Title V. The commenter stated that it is unclear how a source would implement CAM for a work practice standard such as ash unloading from storage silos.

Response: For fugitive emissions and ash unloading, the final rule likely will not apply unless the emissions are captured and routed to a control device. For exempted periods, such periods may result in excursions or exceedances that would have to be reported, as is done currently for excess emission reporting under 40 CFR part 60. If a separate standard applies, the owner or operator could use a separate indicator range/exceedance level for such periods, but would have to document that the separate range/exceedance level was applied only during appropriate periods.

Letter(s): Southern Company Services (VI-D-171)

Comment b: A commenter urged EPA to recognize in the CAM rule the differences between bulk liquid storage terminals and other types of sources, namely that these terminals operate only intermittently and on erratic schedules. The commenter recommended that the rule specifically recognize the nature of the business, not be required during periods when a product is not being stored, piped, or transferred, and be more flexible to accommodate the vast differences in facility design and operations.

Response: Because such operations often do not rely on control devices, EPA does not expect that the rule will significantly impact such facilities.

Letter(s): Independent Liquid Terminals Association (VI-D-178)

Comment c: One commenter recommended that the rule state that CAM activities are eligible for funding under the Title V fee provisions. The commenter explained that State and local agencies will be deeply involved in carrying out the CAM program and will therefore have to commit a significant level of resources to CAM. These agencies would benefit from a statement in the rule establishing that CAM activities are eligible for funding under Title V fee provisions.

Response: Because the review of part 64 monitoring will occur in the context of part 70 implementation, in the same manner as the review of periodic monitoring under § 70.6(a)(3), the costs associated with part 64 implementation are covered by title V fees. The Agency does not believe that any specific rule language is necessary.

Letter(s): State of Illinois EPA (VI-D-183)

Comment d: A commenter suggested that CAM would be most efficiently implemented when a new facility is constructed so that monitoring can be incorporated into the facility design. The commenter added that implementing CAM at existing sources, especially in the plastics industry, will have tremendous burdens. The same commenter recommended that CAM make clear that

if a State imposes monitoring more stringent than required by CAM, such monitoring is State-only, not federally-enforceable.

Response: Existing sources are subject to part 64. Those sources are required to have an adequate basis to demonstrate and certify compliance with applicable requirements. Monitoring more stringent than part 64 may be state-only or federally-enforceable. That determination will depend on the legal authority relied on by the State to require such monitoring.

Letter(s): The Society of the Plastics Industry, Inc. (VI-D-148)

Comment e: A commenter recommended that CAM allow Part 75 monitoring requirements under the Acid Rain Program to supersede Part 60 requirements, provided that the DAHS computes compliance using appropriate averaging times.

Response: This suggestion is beyond the scope of part 64. However, see the recent proposal to coordinate part 60 and part 75 reporting under proposed revisions to 40 CFR part 60, subparts Da and Db (62 FR 36948, July 9, 1997).

Letter(s): Niagara Mohawk (VI-D-168)

October 2, 1997

APPENDIX III-A

**LIST OF COMMENT LETTERS FOR RESPONSE (Part III):
EPA AIR DOCKET A-91-52**

SORTED BY ORGANIZATION

<u>Commenting Organization</u>	<u>Docket #</u>
Air Control Techniques, P.C.	VI-D-202
Air Products and Chemicals, Inc.	VI-D-186
Alyeska Pipeline Service Company	VI-D-126
American Automobile Manufacturers Association	VI-D-157
American Automobile Manufacturers Association	VI-D-266
American Automobile Manufacturers Association	VI-D-270
American Automobile Manufacturers Association	VI-D-273
American Electric Power	VI-D-129
American Furniture Manufacturers Association	VI-D-203
American Gas Association	VI-D-154
American Gas Association	VI-D-255
American Lung Association, et al.	VI-D-238
American Municipal Power-Ohio	VI-D-159
American Petroleum Institute	VI-D-146
American Public Power Association	VI-D-158
Arizona Electric Power Cooperative, Inc.	VI-D-176
Arizona Mining Association	VI-D-150
Arkansas River Power Authority	VI-D-245
Armstrong, Teasdale, Schlafly & Davis	VI-D-205
ASARCO Incorporated	VI-D-187
Association of Battery Recyclers	VI-D-155
Baltimore Gas & Electric Company	VI-D-177
BP Oil Company	VI-D-113
Bristol-Myers Squibb Company	VI-D-204
California Association of Sanitation Agencies	VI-D-206
Can Manufacturers Institute	VI-D-181
Can Manufacturers Institute	VI-D-262
Centerior Energy	VI-D-134
Chemical Manufacturers Association	VI-D-152
Chemical Manufacturers Association	VI-D-258
Chevron Companies	VI-D-132
Cinergy Corp.	VI-D-141
Cinergy Corp.	VI-D-207

<u>Commenting Organization</u>	<u>Docket #</u>
CITGO Petroleum Corporation	VI-D-172
Class of '85 Regulatory Response Group	VI-D-161
Clean Air Implementation Project	VI-D-153
Clean Steel Coalition	VI-D-195
Coalition for Clean Air Implementation	VI-D-164
Coalition of Clean Air Implementation	VI-D-249
Coastal Corporation	VI-D-123
Coastal Corporation	VI-D-271
Colorado Association of Commerce and Industry	VI-D-182
Columbia Gas System Service Corporations	VI-D-175
Cooperative Power Association	VI-D-208
Council of Industrial Boiler Owners	VI-D-263
County Sanitation Districts of Orange County, California	VI-D-231
County Sanitation Districts of Los Angeles County	VI-D-232
Department of Defense	VI-D-209
Department of Energy	VI-D-196
Dow Chemical Company	VI-D-120
DuPont Engineering	VI-D-127
Duquesne Light	VI-D-138
Eastman Chemical Company	VI-D-173
El Paso Energy	VI-D-257
Electronic Industries Association	VI-D-137
Eli Lilly Company	VI-D-124
Enerac	VI-D-227
Engine Manufacturers Association	VI-D-117
Enron Operations Corp.	VI-D-235
Environmental Systems Corporation	VI-D-125
Exxon Chemical Americas	VI-D-128
Exxon Company, USA	VI-D-135
Fertilizer Institute, The	VI-D-145
Fertilizer Institute, The	VI-D-253
Gas Processors Association	VI-D-163
General Electric Company	VI-D-156
Georgia Department of Natural Resources	VI-D-193
Hawaiian Electric Company, Inc.	VI-D-165
Hawaiian Electric Company, Inc.	VI-D-246
Houston Lighting & Power Company	VI-D-228
Independent Liquid Terminals Association	VI-D-178

<u>Commenting Organization</u>	<u>Docket #</u>
Institute of Clean Air Companies	VI-D-139
Institute of Clean Air Companies	VI-D-247
Integrated Waste Services Association	VI-D-147
KBN Engineering and Applied Sciences, Inc.	VI-D-229
Kennecott Corporation	VI-D-119
LaClede Gas Company	VI-D-198
Los Alamos National Laboratory	VI-D-210
Louisiana Mid-Continent Oil and Gas Association	VI-D-184
Marathon Oil Company	VI-D-185
Merck & Co., Inc.	VI-D-212
Metropolitan Council	VI-D-214
Minnesota Pollution Control Agency	VI-D-197
Missouri Department of Natural Resources	VI-D-260
Mobil Business Resources Corporation	VI-D-248
Mobil Corporation	VI-D-115
National Environmental Development Association/ Clean Air Regulatory Project (NEDA/CARP)	VI-D-169
National Environmental Development Association/ Clean Air Regulatory Project (NEDA/CARP)	VI-D-254
National Environmental Development Association/ Clean Air Regulatory Project (NEDA/CARP)	VI-D-269
Natural Gas Pipeline Company of America	VI-D-118
Natural Resources Defense Council	VI-D-151
Natural Resources Defense Council	VI-D-244
Natural Resources Defense Council	VI-D-267
Natural Resources Defense Council	VI-D-268
Nebraska Department of Environmental Quality	VI-D-211
NESCAUM	VI-D-192
NESCAUM	VI-D-194
Niagara Mohawk	VI-D-168
NorAmGas Transmission Company	VI-D-142
NYCOMED, Inc.	VI-D-216
Occidental Chemical Corporation	VI-D-166
Occidental Chemical Corporation	VI-D-261
Ohio Chamber of Commerce, et al	VI-D-160
Ohio EPA, Division of Air Pollution Control	VI-D-180
Pacific Gas Transmission Company	VI-D-230
Pennsylvania Chamber of Business and Industry	VI-D-114

<u>Commenting Organization</u>	<u>Docket #</u>
Pennsylvania Department of Environmental Protection	VI-D-174
Pennzoil Company	VI-D-133
Pfizer, Inc.	VI-D-218
Pharmaceutical Research and Manufacturers of America	VI-D-217
Phillips Petroleum Company	VI-D-131
PPG Industries, Inc.	VI-D-136
Public Service Company of Colorado	VI-D-219
Questar Corporation	VI-D-220
R.R. Donnelley & Sons Company	VI-D-221
Regulatory & Environmental Services Department, City of Jacksonville, FL	VI-D-272
Rubber Manufacturers Association	VI-D-149
S. Fitzsimmons	VI-D-201
San Diego County Air Pollution Control District	VI-D-191
Society of the Plastic Industry, Inc.	VI-D-148
Society of the Plastics Industry, Inc.	VI-D-250
South Carolina Electric & Gas Company	VI-D-116
South Coast Air Quality Management District	VI-D-233
South Dakota Department of Environment and Natural Resources	VI-D-223
Southern California Gas Company	VI-D-222
Southern Company Services	VI-D-171
Southwestern Public Service Company	VI-D-224
Specialty Steel Industry of North America	VI-D-143
STAPPA/ALAPCO	VI-D-179
STAPPA/ALAPCO	VI-D-274
State of Illinois EPA	VI-D-183
State of New Jersey Dept. of Environmental Protection	VI-D-215
State of Tennessee Department of Environment and Conservation	VI-D-234
State of Washington, Department of Ecology	VI-D-167
Steel Manufacturers Association (SMA)	VI-D-144
Tennessee Valley Authority	VI-D-162
Texaco Environment Health & Safety	VI-D-199
Texas Chemical Council	VI-D-236
Texas Natural Resource Conservation Commission	VI-D-189
Texas Natural Resource Conservation Commission	VI-D-256
Texas Natural Resources Conservation Commission	VI-D-265

Commenting Organization

Docket #

Texas Title V Planning Committee
Texas Utilities Services, Inc.
Total Petroleum, Inc.
Tri-TAC
U.S. Small Business Administration
UCAR Carbon Company, Inc.
Union Carbide Corporation
United Technologies
Utility Air Regulatory Group
Utility Air Regulatory Group
Virginia Power
Wellman, Inc.
Wisconsin Electric Power Company
Wyeth Ayerst

VI-D-188
VI-D-121
VI-D-190
VI-D-225
VI-D-239
VI-D-122
VI-D-170
VI-D-251
VI-D-140
VI-D-252
VI-D-226
VI-D-237
VI-D-130
VI-D-213