Frequently Asked Questions (FAQs) Concerning the
Compliance Assurance Monitoring (CAM) Rule

The following questions and responses concerning implementation of the Compliance Assurance Monitoring (CAM) Rule are arranged in three groups. The first group contains general background information about the CAM package. The second group contains specific information related to the CAM rule, and the third group contains information related to the changes in operating permit program rules brought about by the CAM rule.

General Background Information

Question 1. When will the rule take effect?

Response 1. The rule is effective November 21, 1997, which is thirty days after the Federal Register publication date of October 22, 1997. This means that the changes to parts 70 and 71 are effective on November 21, 1997. See 62 FR 54900. Even though the effective date has occurred, **most owners and operators will not need to submit CAM plans until renewal of their initial permits**. However, owners or operators of existing or new large pollutant specific emission units (PSEUs) - those whose post-control emissions exceed or are equivalent to the major source threshold - that do not have complete permit applications by April 20, 1998 - which is 180 days after publication of the rule in the Federal Register - will need to include CAM plans as part of their permit applications. See section 64.5(a) and (b).

Chart I shown below contains the CAM plan due dates. Note that the term "other unit" means a unit whose post-control emissions are less than the major source threshold.

Chart I. CAM Plan Due Dates

Pollutant Specific Emission Unit (PSEU) Size	**CAM Plan Due as Part of the Operating Permit INITIAL Application**	**CAM Plan Due as Part of the Operating Permit REVISION Application**	**CAM Plan Due as Part of the Operating Permit RENEWAL Application**
Large	If permit application is not complete by 4/20/98 OR if PSEU part of a greenfield permit application after 4/20/98	If a significant permit revision at an existing title V source	If application is complete before 4/20/98
Other	Never	Never	Always

Question 2. How many pollutant specific emission units will be covered?

Response 2. The CAM rule will affect about 27,000 PSEUs (about 3,000 large PSEUs and 24,000 other PSEUs) at about 9,000 sources. See 62 FR 54905. Preparation of CAM plans for about forty percent of these units should be easier, since these units already use monitoring acceptable for CAM purposes. See Table IV-27, Regulatory Impact Analysis.

CAM Rule Information

Question 3. What kind of equipment is affected by the CAM rule?

Response 3. The CAM rule applies to each PSEU that meets a three-part test. The PSEU must:

a. be subject to an emission limitation or standard, and
b. use a control device to achieve compliance, and
c. have pre-control emissions that exceed or are equivalent to the major source threshold.

Note that the term "control device" means equipment, other than inherent process equipment, that is used to destroy or remove air pollutant(s) prior to discharge to the atmosphere. The term "control device" does not include passive methods such as lids or seals or inherent process equipment provided for safety or material recovery. See section 64.2(a).

Question 4. What kinds of equipment were excluded from the CAM rule? Why were exclusions granted?

Response 4. The following PSEUs are excluded from the CAM rule:

a. those subject to 111 or 112 standards promulgated after 11/15/90, since those standards have been and will be designed with monitoring that provides a reasonable assurance of compliance;
b. those subject to the acid rain program, emissions trading programs such as the acid rain program, emissions caps like those provided in the Intel P4 permit, or continuous compliance determination methods, i.e., where a regulatory requirement specifies a monitoring method for compliance, because CAM is believed to be redundant for these units [note that permitting authorities should ensure that these units have or get monitoring sufficient for trading emission credits in the proper currency]
c. certain municipally-owned utility units, as defined in 40 CFR 72.2, that produce electricity during periods of peak electrical demand or emergency situations since these periods or situations are infrequent.

See section 64.2(b).

Question 5. What does the CAM rule require of owners and operators?

Response 5. The CAM rule aims to have owners and operators maintain their control devices at the levels that assure compliance. The rule allows owners and operators to design CAM plans on current requirements and operating practices, to select representative parameters upon which compliance can be assured, to establish indicator ranges - or procedures for setting the indicator ranges - for the parameters, to use performance testing and other information to verify the parameters and ranges, and to correct control device performance problems as expeditiously as practicable. See sections 64.3 and 64.7.

Question 6. What are the elements of a CAM plan?

Response 6. A CAM plan must:

a. Describe the indicators to be monitored;
b. Describe the ranges or the process to set indicator ranges;
c. Describe the performance criteria for the monitoring, including
   - specifications for obtaining representative data
   - verification procedures to confirm the monitoring's operational status
   - quality assurance and control procedures
   - monitoring frequency
     - 4 times per hour (minimum) if post control emissions are equal to or exceed the major source threshold
     - 1 time per day (minimum) if post control emissions are less than the major source threshold
   - data averaging period;
d. Provide a justification for the use of parameters, ranges, and monitoring approach;
e. Provide emissions test data; and, if necessary,
f. Provide an implementation plan for installing, testing, and operating the monitoring.

See section 64.4.

Note that permits are required to have the following items:

a. The approved monitoring approach, including the indicators - or the means to measure the indicators - to be monitored;
b. A definition of exceedences or excursions;
c. The duty to conduct monitoring;
d. Minimum data availability and averaging period requirements; and
e. Milestones for testing, installation, or final verification.

See section 64.6(c).

Question 7. What guidance / outreach is planned for this rule?

Response 7. The OAQPS has released a draft CAM Technical Guidance Document that describes the rule implementation process, includes example control device monitoring illustrations, and has case studies from actual situations. The Technical Guidance Document can be found on the Technology Transfer Network at "http:\\134.67.104.12\html\emtic\cam.htm".

The illustrations show a way of meeting the CAM requirements by identifying a control method and monitoring approach for a specific pollutant. Additional CAM illustrations are under consideration, including wet scrubbers for sulfur dioxide, carbon adsorbers for volatile organic compounds, selective catalytic reduction for nitrogen oxides, flares for carbon monoxide, and electrostatic precipitators for particulate matter. In addition, the Emission Measurement Center and AWMA plan on sponsoring a number of workshops beginning in January. A series of satellite broadcasts is also planned to aid permitting authorities in reviewing permit applications.

An example CAM illustration for particulate matter control using a fabric filter is shown in Chart II.

Chart II. Example CAM Illustration

EXAMPLE COMPLIANCE ASSURANCE MONITORING PLAN: FABRIC FILTER FOR PM CONTROL

I. Background

A. Emissions Unit

Description: Line 3 Particleboard Sander
Identification: M2
Facility: One Facility in Anytown, USA

B. Applicable Regulation, Emission Limit, and Monitoring Requirements

Regulation No.: OAR 340-21, permit
Emission limits:
Particulate matter: 0.1 gr/dscf, 3 hr avg.
Monitoring requirements: Visible emissions, periodic monitoring (M22)

C. Control Technology

Pulse-jet baghouse operated under negative pressure.

Chart II (continued). Example CAM Illustration

EXAMPLE COMPLIANCE ASSURANCE MONITORING PLAN: FABRIC FILTER FOR PM CONTROL

II. Monitoring Approach

The key elements of the monitoring approach are presented below:

A. Indicator

Visible emissions will be used as an indicator.

B. Measurement Approach

Visible emissions from the baghouse exhaust will be monitored daily using EPA Reference Method 22-like procedures.

C. Indicator Range

The indicator level is no visible emissions.

D. QIP Threshold

The QIP threshold is five excursions in a six month reporting period.

E. Performance Criteria

Data Representativeness: Measurements are being made at the emission point.

Verification of Operational Status: Not applicable.

QA / QC Practices and Criteria: The observer will be a Method 22 trained observer and follow Method 22-like procedures.

Monitoring Frequency and Data Collection Procedure: A six-minute Method 22-like observation will be performed daily.

Chart II (continued). Example CAM Illustration

EXAMPLE COMPLIANCE ASSURANCE MONITORING PLAN: FABRIC FILTER FOR PM CONTROL

III. Justification

A. Background

This facility manufactures particleboard. The pollutant-specific emission unit is the Line No. Sander, which is used to sand the particleboard to the customer's desired thickness. It is controlled by a Western Pneumatic pulse-jet baghouse with 542 bags, which filters approximately 50,000 ft^3 of air from the sander.

B. Rationale for Selection of Performance Indicator

Visible emissions was selected as the performance indicator because it is indicative of operation of the baghouse in a manner necessary to comply with the particulate emission standard. When the baghouse is operating properly, there will not be any visible emissions from the exhaust. Any increase in visible emissions indicates reduced performance of a particulate control device, therefore, the presence of visible emissions is used as a performance indicator.

C. Rationale for Selection of Indicator Level

The selected indicator range is no visible emissions. When an excursion occurs, corrective action will be initiated, beginning with an evaluation of the occurrence to determine the action required to correct the situation. All excursions will be documented and reported. An indicator range of no visible emissions was selected because: (1) an increase in visible emissions is indicative of an increase in particulate emissions; and (2) a monitoring technique which does not require a Method 9 certified observer is desired. Although RM 22 applies to fugitive sources, the visible/no visible emissions observation technique of RM-22 can be applied to ducted emissions; i.e., Method 22-like observations.

The selected QIP threshold for baghouse visible emissions is 5 excursions in a 6-month reporting period. This level is 3 percent of the total visible emissions observations. If the QIP threshold is exceeded in a semiannual reporting period, a QIP will be developed and implemented.

See the Technical Guidance Document on the EMTIC bulletin board on the TTN website at "http:\\134.67.104.12\html\emtic\cam.htm".

Question 8. How are CAM plans revised?

Response 8. CAM plans are to be revised in accordance with the permit modification processes given in parts 70 and 71. See section 8.2.1 of the Response to Comments document and section 64.7(e). Note that revisions to indicator ranges can occur without using the part 70 permits revision process, provided that the permittee has submitted and the permitting authority approved as part of the CAM plan an indicator or indicator range setting process. See section 64.4(a)(2).

Changes to the Operating Permit Programs Brought About by the CAM Rule

Question 9. What changes occur in parts 70.6 and 71.6 of the operating permit programs regulations?

Response 9. In order to better integrate the CAM rule with the operating permit programs regulations, the following changes were made to the permit content sections (70.6 and 71.6) of the operating permits program regulations:

a. Streamlining for monitoring and testing requirements is now contained in the regulation. Prior to this change, streamlining was allowed by policy via White Paper Number 2. See Chart III.

b. The revised language clarifies part 71's definition of deviation and states that a deviation is not always a violation. See Chart IV.

c. The revised language in sections 70.6(c) and 71.6(c) requires owners and operators to identify whether the data collection methods used to make the compliance certifications were continuous or intermittent, to identify the compliance status and to identify as possible exceptions to compliance any deviations, exceedences, or excursions. The former language required owners and

operators to identify the compliance status and whether compliance was continuous or intermittent. The Agency believes these revisions provide permitting authorities and the public with more specific information concerning a source's compliance. See Chart V.

Chart III. Streamlining Language

Former language	Revised language
70.6(a)(3)(I)(A) - All emissions monitoring and analysis procedures or test methods required under the applicable requirements, including any procedures and methods promulgated pursuant to sections 114(a)(3) or 504(b) of the Act;	70.6(a)(3)(I)(A) - All monitoring and analysis procedures or test methods required under applicable monitoring and testing requirements, including part 64 of this chapter and any other procedures and methods that may be promulgated pursuant to sections 114(a)(3) or 504(b) of the Act. If more than one monitoring or testing requirement applies, the permit may specify a streamlined set of monitoring or testing provisions provided the specified monitoring or testing is adequate to assure compliance at least to the same extent as the monitoring or testing applicable requirements that are not included in the permit as a result of such streamlining;
71.6(a)(3)(I)(A) - All emissions monitoring and analysis procedures or test methods required under the applicable requirements, including any procedures and methods promulgated pursuant to sections 114(a)(3) or 504(b) of the Act;	71.6(a)(3)(I)(A) - All monitoring and analysis procedures or test methods required under applicable monitoring and testing requirements, including part 64 of this chapter and any other procedures and methods that may be promulgated pursuant to sections 114(a)(3) or 504(b) of the Act. If more than one monitoring or testing requirement applies, the permit may specify a streamlined set of monitoring or testing provisions provided the specified monitoring or testing is adequate to assure compliance at least to the same extent as the monitoring or testing applicable requirements that are not included in the permit as a result of such streamlining;

Chart IV. Definition of Deviation

Former language	Revised language
71.6(a)(3)(iii)(C) - For purposes of paragraph (a)(3)(iii)(B) of this section, deviation means any condition determined by observation, by data from any monitoring protocol, or by any other monitoring which is required by the permit that can be used to determine compliance, that identifies that an emission unit subject a part 71 permit term or condition has failed to meet an applicable emission limitation or standard or that a work practice was not complied with or completed. For a condition lasting more than 24 hours which constitutes a deviation, each 24 hour period is considered a separate deviation. Included in the meaning of deviation are any of the following: (1) A condition where emissions exceed an emission limitation or standard; (2) A condition where process or control device parameter values demonstrate that an emission limitation or standard has not been met; (3) Any other condition in which observations or data collected demonstrates noncompliance with an emission limitation or standard or any work practice standard or operating condition required by the permit.	71.6(a)(3)(iii)(C) - For purposes of paragraph (a)(3)(iii)(B) of this section, deviation means any situation in which an emissions unit fails to meet a permit term or condition. A deviation is not always a violation. A deviation can be determined by observation or through review of data obtained from any testing, monitoring, or recordkeeping established in accordance with paragraphs (a)(3)(i) and (a)(3)(ii) of this section. For a situation lasting more than 24 hours which constitutes a deviation, each 24 hour period is considered a separate deviation. Included in the meaning of deviation are any of the following: (1) A situation where emissions exceed an emission limitation or standard; (2) A situation where process or emissions control device parameter values indicate that an emission limitation or standard has not been met; (3) A situation in which observations or data collected demonstrates noncompliance with an emission limitation or standard or any work practice or operating condition required by the permit; (4) A situation in which an exceedance or an excursion, as defined in part 64 of this chapter, occurs.

Chart V. Compliance Certification Requirements

Former language	Revised language
70.6(c)(5)(iii) - A requirement that the compliance certification include the following: (A) The identification of each term that is the basis of the certification; (B) The compliance status; (C) Whether compliance was continuous or intermittent; (D) The method(s) used for determining the compliance status of the source, currently and over the reporting period consistent with paragraph (a)(3) of this section; and (E) Such other facts as the permitting authority may require to determine the compliance status of the source;	70.6(c)(5)(iii) - A requirement that the compliance certification include all of the following (provided that the identification of applicable information may cross-reference the permit or previous reports, as applicable): (A) The identification of each term or condition of the permit that is the basis of the certification; (B) The identification of the method(s) or other means used by the owner or operator for determining the compliance status with each term and condition during the certification period, and whether such methods or other means provide continuous or intermittent data. Such methods and other means shall include, at a minimum, the methods and means required under paragraph (a)(3) of this section. If necessary, the owner or operator also shall identify any other material information that must be included in the certification to comply with section 113(c)(2) of the Act, which prohibits knowingly making a false certification or omitting material information; (C) The status of compliance with the terms and conditions of the permit for the period covered by the certification, based on the method or means designated in paragraph (c)(5)(iii)(B) of this section. The certification shall identify each deviation and take it into account in the compliance certification. The certification shall also identify as possible exceptions to compliance any periods during which compliance is required and in which an excursion or exceedance as defined under part 64 of this chapter occurred; and (D) Such other facts as the permitting authority may require to determine the compliance status of the source.

Chart V (continued). Compliance Certification Requirements

Former language	Revised language
71.6(c)(5)(iii) - A requirement that the compliance certification include the following: (A) The identification of each term that is the basis of the certification; (B) The compliance status; (C) Whether compliance was continuous or intermittent; (D) The method(s) used for determining the compliance status of the source, currently and over the reporting period consistent with paragraph (a)(3) of this section; and (E) Such other facts as the permitting authority may require to determine the compliance status of the source;	71.6(c)(5)(iii) - A requirement that the compliance certification include all of the following (provided that the identification of applicable information may cross-reference the permit or previous reports, as applicable): (A) The identification of each term or condition of the permit that is the basis of the certification; (B) The identification of the method(s) or other means used by the owner or operator for determining the compliance status with each term and condition during the certification period, and whether such methods or other means provide continuous or intermittent data. Such methods and other means shall include, at a minimum, the methods and means required under paragraph (a)(3) of this section. If necessary, the owner or operator also shall identify any other material information that must be included in the certification to comply with section 113(c)(2) of the Act, which prohibits knowingly making a false certification or omitting material information; (C) The status of compliance with the terms and conditions of the permit for the period covered by the certification, based on the method or means designated in paragraph (c)(5)(iii)(B) of this section. The certification shall identify each deviation and take it into account in the compliance certification; and (D) Such other facts as the permitting authority may require to determine the compliance status of the source.

Question 10. (reserved)

Question 11. Will existing title V permits have to be reopened?

Response 11. No, unless a proposed change to the permit would need to use the significant revision track or unless the permit is reopened for cause. However, only those units subject to the change or reopening would be required to apply for, and obtain approved, CAM plans. See sections 65.4(a)(2) and (c).

Question 12. Will existing permit applications have to be revised?

Response 12. No, unless the permit applications are not found or deemed complete by April 20, 1998. See section 64.5(a)(1). Based upon title V application statistical data compiled in August 1997, about 8,000 permit applications - or about thirty-six percent of the expected total - had not been submitted.

Question 13. Will permitting authorities have to adopt delegation of the CAM rule before their permits contain CAM?

Response 13. No. Existing programs should include provisions granting general authority to implement the CAM rule. In order to receive interim or full approval for their operating permit programs - and all programs have received either interim or full approval - permitting authorities were required to demonstrate that they had adequate legal authority to incorporate monitoring requirements, including requirements promulgated pursuant to sections 114(a)(3) or 504(b) of the Clean Air Act. Note that the CAM approach was developed to address these requirements of the Act. See sections 70.4(b)(3)(ii) and 70.6(a)(3)(i)(A) and 62 FR 54900. Moreover, the CAM rule provides a new set of applicable requirements, much like the requirements established by section 112(g)'s case-by-case MACT determinations. See Section 8.1.1 of the CAM Response to Comment Document.

Question 14. What would a permitting authority do if a "possible exception to compliance" is reported?

Response 14. If a possible exception to compliance is reported to a permitting authority, the permitting authority should investigate to determine whether a violation occurred and potentially use the information to bring an enforcement action for a violation. Permittees are to make every effort to minimize any periods that exceedences, excursions, or deviations occur. See section 64.7(d). Should the permitting authority determine that the permittee has not reacted appropriately, the permitting authority can require the permittee to implement a Quality Improvement Plan, or QIP. A QIP shall include the procedures for evaluating control performance problems as well as improved preventive maintenance practices, process operation changes, improvements to control methods, and / or more frequent or improved monitoring. See section 64.8.

Question 15. What happens to part 70 monitoring (this includes periodic monitoring) for units subject to the CAM rule?

Response 15. Part 70 monitoring is replaced by CAM for those units subject to the CAM rule. Until CAM is in place, part 70 monitoring (including periodic monitoring) remains in effect. See sections 64.5(d) and 64.6(e)(1).

Question 16. What responsibility does the permitting authority have to ensure CAM is applied?

Response 16. The CAM rule does not require a permitting authority to develop CAM plans if a permit applicant fails to provide an approvable CAM plan. However, the CAM rule requires a permitting authority to provide monitoring that satisfies part 70 requirements and a compliance schedule for providing an approvable CAM plan within 180 days. See section 64.6(e). Note that if the owner or operator fails to provide an approvable CAM plan within that 180 day compliance schedule, the owner or operator is not in compliance with part 64. See section 64.6(e)(3).

Question 17. A unit is subject to a newly-promulgated MACT standard. The unit is part of a facility that is subject to title V (and has a part 70 permit) because the facility emits a criteria pollutant above the major source threshold. Is the unit exempt from the CAM rule, even if the MACT does not require monitoring for the criteria pollutant that makes the facility a major source?

Response 17. The CAM rule exemption for MACT rules applies only to monitoring for those MACT emission limits. That is, the CAM rule imposes no additional monitoring on the emission unit for showing compliance with MACT limits. This exemption does not extend to monitoring for compliance with other limitations that may also apply to that unit. However, the MACT monitoring may satisfy CAM requirements. This may often be the case when the MACT requires particulate or VOC control measures and the criteria pollutant is particulate or VOC. Note that the source owner must make this determination initially and indicate in the permit application that the existing monitoring satisfies CAM or propose additional monitoring to meet the CAM requirements for monitoring for compliance with the criteria pollutant limit.

Question 18. A source owner has submitted a permit application before April 20, 1998 and has received a completeness determination but no title V permit. If, before a permit is issued, a source owner makes a change that involves a large PSEU (a unit whose post control emissions exceed the major source threshold) and that would be considered significant under part 70 if a permit had been issued, would the large PSEU be subject to the CAM rule?

Response 18. Yes, the large PSEU would become subject to the CAM rule if the change could potentially affect the unit's compliance status and if the change is owner-initiated. Not all changes that would require a significant permit revision trigger CAM rule applicability. The types of changes that could trigger CAM rule applicability include source owner- or operator-initiated physical changes such as increasing production rate, changing to a new fuel or raw material, adding a new process line or control device, increasing the load on the control device by routing additional process exhaust to it, changing the control device, installing new monitoring systems, or changing process or weight rates. Note that submission of supplementary facts, corrected information, or additional information as to new requirements, as those terms are used in 40 CFR sections 70.5(a)(2) and 70.5(b), after receipt of a completeness determination would not trigger CAM rule applicability.

Question 19. New Source Performance Standards (NSPS) usually refer to a unit's design capacity, not to a unit's potential to emit. For CAM rule applicability purposes, is a unit's design capacity (as expressed in an NSPS promulgated before 11/15/90) irrelevant except as it relates to calculating the unit's potential to emit?

Response 19. The CAM rule relies on part 70's definition of potential to emit, as given in section 70.2. Note that design capacity as defined by a rule (e.g., NSPS) probably has limited usefulness in determining potential to emit. In addition, note that the CAM rule applicability process is not intended to establish a hierarchy based on design capacity or any other factor.

Question 20. Do fugitive emissions count towards a PSEU's potential to emit?

Response 20. Fugitive emissions count toward potential to emit in the same manner used for making title V applicability determinations. This means that, in general, fugitive emissions are not considered unless the major source belongs to one of twenty-seven categories of stationary source. See the definitions of the terms "Fugitive emissions," "Major source," and "Potential to emit" given in 40 CFR section 70.2. If fugitive emissions are included in the title V applicability determination, then they count towards a PSEU's potential to emit. Otherwise, they do not count towards a PSEU's potential to emit.

Question 21. Will emission units subject only to process weight rate limitations be subject to the CAM rule?

Response 21. Yes, these units would be subject to the CAM rule if the other CAM applicability criteria, given below, are met:

a. the unit must be located at a major source subject to a Title V permit,

b. the unit must have a control device necessary to meet the process weight rate limit,
and

c. the pre-control device emissions of the regulated pollutant must exceed or be equivalent to the major source size threshold.

Question 22. A PSEU with a control device has potential fugitive emissions. In order to determine whether the PSEU is large or other, would one exclude or include the amount of fugitive emissions from the control device?

Response 22. The calculation of pre-control emissions for determining CAM rule applicability is based on the total emissions of the regulated pollutant from the affected unit. The calculation can, and most frequently will, be based on emission factors. This means that pre-control emissions are to include all potential emissions including any fugitive emissions not captured by the control device. Note that source owners or permitting authorities are not expected to conduct emission testing for CAM rule applicability purposes; they only need to remove the design efficiency of the control device from the calculation of the applicable unit's potential to emit. See 62 FR 54914.

Question 23. Can a video or infrared camera substitute for a thermocouple for detecting the presence of a pilot flame?

Response 23. Use of a video camera, by itself, is not a good substitute for detecting the presence of a pilot flame. Note that the Office of Enforcement and Compliance Assurance has given approval for alternative monitoring which included a thermocouple to monitor the flame and a "closed circuit camera" to provide 24 hour surveillance of a steam-assisted flare system. The Emissions Measurement Center (EMC) is reviewing a similar monitoring approach to determine if it can be used to meet the CAM requirements. That approach involves both a thermocouple, which would provide indication of flame presence, and a video camera, which would monitor visible emissions. The review should be completed and available in a few months. Use of an infrared camera to detect the presence of a flame is an option worth pursuing; the EMC will review any proposal of such monitoring.

Question 24. What is the status of the legal challenge to the CAM rule?

Response 24. The Court granted industry's request for a delay in the CAM rule challenge briefing schedule until after the decision in the credible evidence rule case. Since the Agency received a decision on the credible evidence rule case on August 14, 1998, one can expect the CAM rule case to be briefed and argued over the fall and winter. Meanwhile, the CAM rule remains in effect.

Question 25. A permitting authority already has full approval for its part 70 program. What is the deadline for the permitting authority to make the part 70 revisions that accompanied promulgation of the CAM rule?

Response 25. As mentioned in Response 10, while all programs will need to be revised to incorporate the part 70 changes that accompanied the CAM rule, permitting authorities have flexibility as to when those changes must occur. Permitting authorities can make the changes in accordance with the existing program revision procedures given in section 70.4(i). Permitting authorities with interim approval can submit the requisite changes as part of their full approval package. Permitting authorities can also wait to submit the changes in conjunction with the changes contained in the upcoming revisions to section 70.7. The Agency expects all changes due to its rulemaking to be competed on or before the revisions to section 70.7 are done.

Question 26. Is the Agency conducting any studies to develop a technical illustration for an electrostatic precipitator?

Response 26. No. While the Agency is not conducting any studies to develop an example for an electrostatic precipitator, the Agency plans on obtaining information from an Electric Power Research Institute (EPRI) study of electrostatic precipitators. In early June, EPRI is initiating its study of equipment performance relative to compliance. The study may also include installation and testing of particulate matter continuous emissions monitoring systems.

Question 27. A source owner has submitted its title V application and received its completeness determination before April 20, 1998, so that the large size PSEU does not require CAM plan submittal at time of application submittal. During the permit negotiations, the permitting authority requests that the monitoring be changed to the extent that it would be considered a significant revision. Does the significant revision trigger CAM Plan submittal for the large size PSEU?

Response 27. As mentioned in Response 18, this proposed permit revision would not trigger CAM requirements because the change request was initiated by the permitting authority, not the source.

Question 28. A permitting authority requests source owners not to include CAM plan interim monitoring details in the initial applications until periodic monitoring guidance is issued by EPA. After the periodic monitoring guidance is issued, does the updating of permit applications with monitoring information trigger CAM plan submittal of applicable large size PSEUs?

Response 28. As mentioned in Response 18, updating of permit applications (i.e., submitting supplementary facts) due to permitting authority-initiated changes does not trigger CAM applicability of large PSEUs. Note that if a source owner has a complete permit application by April 20, 1998, the source owner need not address CAM requirements until the applicability date given in the rule. In the meantime, source owners or operators and permitting authorities can use CAM principles or other monitoring to satisfy part 70 periodic monitoring requirements, consistent with the Agency's periodic monitoring guidance.

Question 29. An owner of a source submits a part 70 permit application update containing a change to a large PSEU that would constitute a significant permit revision if a part 70 permit had been issued; however, the change would not affect the interim monitoring for that PSEU. Without the owner initiated change, the PSEU would have become subject to the CAM rule at permit renewal. Does an owner-initiated change which would require use of the part 70 significant revision process but that has no impact on monitoring for a large PSEU trigger CAM rule applicability?

Response 29. As mentioned in Response 18, not all changes that would require a significant permit revision trigger CAM rule applicability. The Agency plans on issuing a separate piece of guidance to identify those changes that would trigger CAM applicability. In general, the changes that are owner-initiated and that would potentially affect compliance or compliance determination (i.e., monitoring) would include changes such as adding a new unit, increasing production rate, changing fuel or raw material composition, modifying the monitoring technique, adding a new process line or control device, increasing the load on the control device by routing additional process exhaust to it, changing the control device, changing monitoring systems, or changing to process or weight rates. Note that while changes initiated by permitting authorities may require application and/or permit revisions, those changes do not trigger CAM applicability.

Question 30. A PSEU has a continuous emission monitoring system (CEMS) for nitrogen oxides, and the CEMS collects a data point every fifteen minutes. The underlying standard for nitrogen oxides lacks a data averaging period. Given that the monitoring frequency is four times per hour and that the data averaging period is not addressed, does one assume that the CEMS provides intermittent monitoring and that the standard requires instantaneous compliance?

Response 30. This hypothetical situation seems unlikely. First, CEMS operating in accordance with requirements in 40 CFR 60.13 and PS-2, i.e., providing a data point at least every fifteen minutes, supply data on a frequency consistent with the frequency established by the Agency for a continuous monitoring system. See 62 FR 54922. Second, few, if any, nitrogen oxides emissions limits exist that do not rely on a default data averaging period which is based on a "3-hour" average required by Method 7 (or 7E) performance testing. Appropriate monitoring for the hypothetical situation becomes apparent once the permit applicant or permitting authority identifies (as required by the periodic monitoring requirement of part 70 or 71) an averaging time consistent with the compliance limit.

Question 31. Consider a PSEU which uses a CEMS for monitoring nitrogen oxides emissions. The nitrogen oxides emissions limit has a two-hour averaging period. Since the CEMS collects data every fifteen minutes and since the monitoring frequency is well within the data averaging period, does the CEMS provide continuous monitoring?

Response 31. As mentioned in Response 30, a CEMS operated in accordance with the requirements of 40 CFR 60.13 and PS-2 yields continuous data. Since the frequency of data collection is compatible with the averaging time of the nitrogen oxides emission limit, the CEMS provide continuous monitoring.

Question 32. A boiler has a volatile organic compound emissions limit with a three-hour data averaging period. The boiler collects data from an operating parameter once per hour. Would such monitoring represent continuous monitoring for non-large PSEUs? Given that the CAM rule requires a data collection frequency of at least every fifteen minutes for large PSEUs, would such monitoring represent continuous monitoring for large PSEUs?

Response 32. Since 40 CFR 64.3(b)(4)(i) requires data collection frequency intervals to be commensurate with the time period over which a change in control device performance that would require actions by the owner or operator to return operations within normal ranges or designated conditions is likely to be observed and since a data collection frequency of once per hour appears compatible with a three-hour data averaging period and with the minimum data collection frequency of once per day required for non-large PSEUs, such monitoring could represent continuous monitoring for non-large PSEUs. However, since the data collection frequency of once per hour is not compatible with the minimum data collection frequency of at least every fifteen minutes required for large PSEUs, such monitoring would not represent continuous monitoring for large PSEUs, nor would it comply with CAM.

Question 33. A boiler has a volatile organic compound emissions limit with a data averaging period of four hours. A permit applicant proposes to monitor an operational parameter once per day, since the PSEU is not large. Would such monitoring represent intermittent monitoring because its frequency is not within the data averaging period?

Response 33. If one assumes that the data averaging period is established in the rule, then the monitoring frequency of once per day is insufficient for CAM purposes. Note that the CAM rule establishes minimum monitoring frequencies, meaning that those frequencies must be increased as necessary to be compatible with emission averaging times. One data point per day (and a daily average) may be sufficient depending on the control device, margin of compliance, particularly when the frequency is commensurate with the time period over which a change in control device performance that would require actions by the owner or operator to return operations within normal ranges or designated conditions is likely to be observed. See 40 CFR 64.3(b)(4)(i).