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Compliance Assurance Monitoring

On August 3, 1997, the U.S. Environmental Protection Agency (EPA) issued Compliance Assurance Monitoring (CAM) regulations that will help owners of air contaminant sources to conduct effective monitoring of their air pollution control equipment. If monitoring is conducted properly, source owners will be able to assure state and local agencies, EPA, and the public that they are complying with established emissions standards [hence the title Compliance Assurance Monitoring (CAM)]. The CAM rule requires owners and operators to monitor the operation and maintenance of their control equipment so that they can evaluate the performance of their control devices and report whether or not their facilities meet established emission standards. If owners and operators of these facilities find that their control equipment is not working properly, the CAM rule requires them to take action to correct any malfunctions and to report such instances to the appropriate state or local enforcement agency.

The CAM rule also provides state and local environmental agencies with enforcement tools to require facilities to respond appropriately to the monitoring results and improve pollution control operations.

Background

The Clean Air Act Amendments (CAAA) of 1990 required major sources that emit pollution into the atmosphere to obtain a permit to operate. This permit, known in Nebraska as a Class I operating permit, contains information about how the source will comply with established emission standards and regulations. The operating permit program improves compliance with existing regulatory requirements and ensures that desired emission reductions occur and are maintained at a source.

The CAAA also authorized EPA to develop regulations requiring facilities to monitor the performance of their emission control equipment. In September 1993, EPA proposed an "enhanced monitoring" rule that established monitoring criteria to demonstrate continuous compliance with emission limitations and standards. Many state and local agencies, industry representatives and other stakeholders strongly criticized the proposed rule. They believed the proposed rule was overly prescriptive and would have imposed an excessive burden on industry to install and operate continuous emission monitoring equipment, and on state and local agencies in implementing their operating permit programs.

Based on these comments and numerous meetings with major stakeholders, EPA revised the draft enhanced monitoring rule and issued a second draft for public comment on August 2, 1996. The EPA issued the final version of the enhanced monitoring rule, officially known as the CAM rule, in August 1997. The CAM regulations are found in 40 CFR Part 64 and Title 129, Chapter 6.

What are the environmental benefits of the CAM Rule?

Not all processes or air contaminant sources need air pollution control devices to meet required emission standards. Some sources can achieve emission reductions through other techniques. However, approximately ten (10) percent of the processes at major industrial facilities that are subject to air pollution emission standards are equipped with some type of air pollution control equipment. The CAM rule applies to approximately sixty (60) percent of these facilities. Altogether, the control devices subject to monitoring under the CAM rule control over ninety-seven (97) percent of total emissions from sources subject to the CAM rule.

What are the main components of the CAM Rule?

The CAM rule establishes criteria that define the type of monitoring the source owner or operator must conduct to provide reasonable assurance of their compliance with emission limits and standards. This monitoring will help the source certify compliance under the Class I operating permit program.

The CAM rule includes compliance certification language that allows the source owner or operator to use compliance assurance monitoring data to establish their compliance status with Class I operating permit terms or conditions. The owner or operator can then use this information to certify that their source is complying with air pollution control requirements, as required by the Clean Air Act.

For situations where continuous compliance monitoring is already specified in the applicable standard, the source is exempt from additional monitoring requirements related to the CAM rule. The continuous compliance monitoring data specified in the applicable standard is used to fulfill the CAM rule requirements.

For emission units with control equipment, the rule requires the owner or operator to conduct monitoring in accordance with unit specific monitoring plans developed by the source. The monitoring plans establish an acceptable range in which to operate the control device (known as an "indicator range") to meet the applicable emission limitations. Generally, source owners will use these results in conjunction with equipment design or other information to determine the indicator ranges that will provide a reasonable assurance of compliance with emission limitations, provided the equipment is operated within those specified ranges.

Operating control devices within acceptable ranges, as they were designed to operate, will minimize emissions and provide reasonable assurance that the facility is complying with permit terms and conditions. If control equipment is found to be operating outside acceptable ranges, owners and operators are required to take prompt corrective actions and notify state and local authorities that potential compliance problems may exist.

If the control equipment is found to be operating outside the indicator range for long periods of time, the CAM rule provides the authority for the state or local permitting agencies to require a more intensive evaluation and improvement of control practices. To address persistent control device problems, the state and local agencies can require the owner or operator to implement a quality improvement plan (QIP). A QIP is a comprehensive two-step evaluation and correction process that requires the source owner to prepare a formal plan and schedule for correcting control device problems. Such activities may include significant repairs to or even replacement of control devices.

Who is affected by the CAM Rule?

The CAM rule applies to major (Class I) facilities that operate emission control devices in accordance with federally enforceable regulations, except for EPA regulations issued after 1990. The CAM rule not only applies to EPA regulations, but also any state regulation or construction permit requirement that pertains to a Title V operating permit.

With the passage of the CAAA, EPA incorporated "directly enforceable monitoring" into all emission regulations. In some cases, this monitoring is more stringent than the monitoring required under the CAM rule. Therefore, this rule does not apply to facilities that are subject to EPA regulations issued after 1990. However, it is possible that some portions of a facility are operating control devices to comply with emission standards issued prior to 1990 or state regulations or construction permit requirements. In this case, these portions of the facility must comply with the requirements of the CAM rule.

How does the CAM Rule affect small business?

With few exceptions, the CAM rule does not include provisions to exempt applicability or reduce requirements for small businesses. However, the actual burden associated with the monitoring related to the CAM rule is relatively small.

What enforcement tools did EPA provide to state and local agencies?

The operating permit program requires source owners to periodically (at least annually) report on their compliance status for each requirement in the permit. They are also required to note any periods of operation outside the established CAM indicator ranges. These compliance certification reports, along with the CAM monitoring results, are valuable tools for the state or local enforcement agency. They can be used in identifying facilities with significant compliance problems and in deciding how to allocate limited enforcement resources.

What is the relationship between CAM and enforcement resulting from the Credible Evidence Rule?

Given that operating an air pollution control device outside the acceptable range will not necessarily indicate that the facility is out of compliance, the CAM rule cannot and does not replace a source's obligation to comply with emission limits that otherwise apply. Nonetheless, EPA expects a unit that is operating within appropriately established ranges as part of an approved CAM plan will, in fact, be in compliance with its applicable emission limits. For this reason, units operating within their CAM indicator ranges will be presumed to be in compliance and will not be looked at for enforcement actions.

For further information

Interested parties can download the CAM rule in its entirety from EPA at the following web address: http://www.epa.gov/ttn/oarpg/t1/frnotices/camrule.pdf. For further information about the rule, contact the NDEE Air Quality Program at (402) 471-2186.

Applicability

CAM applicability must be evaluated for all major sources with an active Class I operating permit, or sources that are required to obtain a Class I operating permit. Generally, CAM applies to emission units that meet the following criteria:

1. The emission unit is subject to an emission limitation or standard for the applicable regulated air pollutant;
2. The unit uses a control device to achieve compliance with any such limitation or standard; and
3. The unit has potential pre-control device emissions, of the applicable regulated air pollutant, that are equal to or greater than 100 percent of the amount, in tons per year, required for a source to be classified as a major source.

Exemptions

The CAM requirements do not apply to sources with Class I permits that include the following:

1. Emission limitations or standards promulgated by the Administrator after November 15, 1990, pursuant to Section 111 (NSPS) or 112 (NESHAP) of the CAAA (Regulations promulgated under these sections after Nov. 15, 1990, will include monitoring requirements);
2. Stratospheric ozone protection requirements under Title VI of the Act;
3. Acid Rain program requirements;
4. Emission limitations or standards or other applicable requirements that apply solely under an emissions trading program approved by the Administrator used for trading emissions within a source or between sources;
5. An emissions cap that meets the requirements specified in 40 Code of Federal Regulations (CFR) Part 70.4(b)(12) or Part 71.6(a)(13)(iii);
6. Emission limitations or standards for which a 40 CFR Part 70 or 71 permit specifies a continuous compliance determination method. This does not apply if the compliance method includes an assumed control device emission reduction factor (Example: A surface coating line controlled by an incinerator that calculated emissions on an assumed control device efficiency factor based on an initial performance test would not be exempt.); and
7. Certain backup utility power units, that are municipally owned, that:
    a) Are exempt from all Acid Rain monitoring requirements;
    b) Are operated solely for providing electricity during periods of peak electrical demand or emergency situations (some operational and contractual data will be needed.); and,
    c) Where actual emissions (annual) averaged over the last three calendar years (or shorter time if it hasn't operated that long) are less than 50 percent of the amount in tons per year for the source to be considered major.

Deadlines

While CAM applies to emission units that meet the applicability criteria discussed above, the CAM rule provides two separate and distinct deadlines for submitting CAM information as part of the Class I permitting process. The deadline is dependent upon the type of pollutant specific emission unit in question.

The CAM rule identifies a "large pollutant specific emission unit" as a unit with potential post-control device emissions, of the applicable regulated air pollutant, that are equal to or greater than 100 percent of the amount, in tons per year, required for a source to be classified as a major source. Emission units

that do not meet the definition of a large pollutant specific emission unit are deemed "other pollutant specific emission units."

For "large pollutant specific emissions units" that meet the CAM criteria discussed in the Applicability section of this fact sheet, the CAM plan is due at the following times:

1. After April 20, 1998, an owner shall submit CAM information as part of an application for an initial Class I permit if, by that date, the application either:
   a) Has not been filed; or
   b) Has not yet been determined to be complete.
2. After April 20, 1998, an owner shall submit CAM information as part of an application for a significant permit revision of their Class I permit, but only with respect to those pollutant-specific emissions units for which the proposed permit revision is applicable.
3. The owner or operator shall submit any information not submitted under the deadlines above as part of the application for renewal of their Class I permit. For "other pollutant specific emission units" that meet the CAM criteria discussed in the Applicability section of this fact sheet, the owner must submit the CAM plan information as part of the application for renewal of their Class I permit.