U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION 5
Enforcement Division

DIRECTIVE

Directive Title:

Manual(s): PM
ID No.(s): AEB-600-4
Date: NOV 12 1981

Directive Subtitle:

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1. PURPOSE. This directive describes the review and routing procedures for processing excess emission reports (EERs) submitted to the Air Enforcement Branch (AEB). These procedures are established to ensure

a. the EERs are handled, analyzed, and reviewed in a consistent manner,

b. the results of those analyses and the recommendations for further enforcement actions are routed to the appropriate people, and

c. the AEB maximize use of the information from the continuous emission monitoring reports.

2. SCOPE AND APPLICABILITY. These procedures apply to all EERs received by AEB as a result of reporting requirements in NSPS, Section 114 requests, SIP regulations, Consent Decrees and Administrative Orders. This system for processing EERs will be in effect until the AEB begins to use the CEM subset of CDS for inputting and tracking the results of EER review.

3. POLICY. The AEB shall evaluate, verify and ensure the continuous compliance status of stationary sources by incorporating the review and analysis of EERs into the overall regional enforcement program.

4. PROCEDURE. The following procedures will ensure that all EERs are handled and reviewed in a consistent manner:

a. All EERs should be received and logged in by the Air Compliance Section. The State specialist, NSPS specialist or the Compliance Order specialist will route the EERs to the Engineering Unit Chiefs through Engineering Section Chief for assignment to the case engineer and/or CEM engineer. The EER should have a two-way memo attached with the routing slip. The Compliance Section specialist should note the timeliness of the report and any major problems or concerns identified in the EER's cover letter.

b. The Unit Chief should directly assign all EERs received pursuant to NSPS requirements, Section 114 requests and any informal agreements to the CEM engineer. EERs received pursuant to Compliance Orders, Consent Decrees or Judgement Orders should be sent to the case engineer for formal review and follow-up or for cursory review and reassignment to the CEM engineer for formal review. If the case engineer formally reviews an EER, the EER evaluation package should always be routed back through the CEM engineer. This action will assure overall consistency in EER analysis and evaluation and allow the CEM technical specialist to keep current the AEB's temporary central file of EER evaluation.

c. The CEM engineer/CEM technical specialist or case engineer should review and analyze each EER for the following items:

i) The reviewer should note any deficiencies in the report format. Region V AEB does not require a prescribed standard format for the EERs, however, it does require as a matter of policy that any EER meet the requirements of Section 40 CFR 60.7(c) in that individual and/or continuous periods of excess emissions be identified as events. The AEB considers as inadequate an EER that does not identify the magnitude, the extent and some statement of cause of the excess emission events.

ii) The reviewer should complete a separate analysis for each emission point covered in the report. Attachment A should be used for review and analysis of an opacity EER. Attachment B should be used for gaseous pollutant EERs.

iii) The reviewer should classify into one of four categories the excess opacity event by the cause given. The number of minutes reported for each category is summed for the day and then the total number of minutes of reported excess opacity for that date is determined from the sum of the four categories. A separate tally is made for the amount of time that the monitoring system is not functioning. Important comments on the excess emissions of that day should be recorded.

iv) The reviewer should determine the percent of time that the source was operating and reporting excess opacity. The total number of minutes of excess opacity is summed for the quarter and divided by the number of minutes in the quarter to give percent excess opacity. It is assumed that the source operates continuously through the quarter unless otherwise reported. However, this assumption should be checked with the State or the source for accuracy if the resulting percent excess opacity indicates a problem. If all the units or processes contributing effluent through the emission point are shut down or off line, the amount of non-operational time should be subtracted from the total time in the quarter before the percent excess opacity is calculated. Note that diurnal cycling processes and batch processes are considered continuous.

v) The reviewer should determine the percent of time that the CEM was not operating during the reporting quarter.

d. The above determination must be committed to writing. The reviewer then examines the information and recommends a course of action. The following guidelines are provided for general direction in making a recommendation. However, good engineering judgement must be exercised. If there is reason for proceeding in a manner different from that suggested

below, such different action should be recommended in writing and that action taken. The general guidelines for recommended actions are:

i) No Further Actions (NFA) if percent excess opacity and monitor downtime is below two percent, the distribution of excess emission is normal over time and cause, and/or problems causing excess emissions have been verified as corrected.

ii) Visible Emission Observations (VEOs) be initiated, if percent excess opacity is approximately five percent, the distribution of excess emissions is concentrated in categories 'undetermined' and 'malfunctions', the emission problem is uncorrected or is identified at the end of the reporting quarter and excess emissions occur generally during daylight hours. The reviewer should fill out a request for VEOs and attach it to the EER evaluation package.

iii) LIDAR observations be initiated if percent excess opacity is approximately five percent, the distribution of excess emissions is concentrated in categories 'undetermined' and 'malfunctions', the emission problem is uncorrected or is identified at the end of the reporting quarter and excess emissions occur generally during nighttime hours. The reviewer should fill out a request for NEIC or ESRL to make LIDAR determinations at that source and attach it to the EER evaluation package.

iv) Check Next Quarter (CNQ) if informal communication/interaction with source operator could rectify an excess emission or monitor problem identified in the EER. The following quarter's EER should be reviewed carefully for any formal enforcement followup.

v) Plant Inspection, if percent excess opacity is greater than five percent and/or monitor downtime exceeds five percent and there is no cause identified for excess emissions or monitor downtime.

vi) Performance Audits, if EER has high percentage of monitor downtime (>five percent) and/or reported excess emissions attributed to the inaccuracy, frequent maintenance, poor calibration and/or excessive drift of the opacity monitor exceed five percent of the operating quarter, the reviewer should request that S&A, the State Agency or contractors conduct a performance audit.

also for SO2's NOx.

vii) Notice of Violation (NOV), if the source is reporting pursuant to a NSPS, SIP or Section 114 requirement and the EER shows: percent excess opacity exceeds five percent, monitor availability is 99 percent or greater and/or the monitor had been audited within one year; and reported exceedances are grouped in 'malfunction' and/or 'undertermined'

categories, the reviewer should fill out a checklist request for formal Notice of Violation.

viii) Referral - If an EER is received pursuant to an emission monitoring requirement of an Order or Decree and the report shows exceedances of the emission limit established in the Order or Decree after the final compliance date, the reviewer should request actions ii, iii, v, & vi and recommend that the case attorney and engineer prepare a referral if it violates an Order or a contempt action plan if it violates a Court Decree. The criteria for evaluating an EER for initiation of this action are the same as for initiation of a request for an NOV. The violation of a CEM installation and reporting requirement within an Order or Decree is to be handled according to procedures in RO-ED-80-A-10 and Directive AEB-100-22.

e. The reviewer should summarize the results of the EER analysis on the two-way memo. Recommendations should be recorded on that memo. One copy of that evaluation should be sent to the CEM technical specialist. The EER, analysis worksheets, and the evaluation memo should be routed back to the Compliance Section through the case engineer, Engineer Unit and Section Chiefs. It is the reviewers responsibility to take the required steps to make sure items ii) through vi) are taken.

f. Although continuous opacity monitoring may not be a reference method in the SIPs or for NSPS sources, the EER does constitute "information available to the Administrator" for the purposes of Section 113 (a)(1) of the Clean Air Act. Such data at minimum is equivalent to emission values calculated from process rate information and AP-42 emission factors and exceeds the minimum qualification of 'any information' in that it is:

i) A characterization and quantification of the emissions in the units of standard,

ii) Deemed to relate to the O&M of the process and control equipment,

iii) Subject to review and to analyses for the magnitude and severity of an indicated problem,

iv) Relateable to conditions demonstrated during compliance testing,

v) Capable of being assessed for accuracy

vi) Representative of the emission profile under normal operating conditions, and

vii) Accompanied by statements from the source of probable cause thereby allowing the Agency to focus discussions/negotiations on solutions.

Consequently, the AEB will proceed with NOVs using CEM data where we are confident the instruments have been properly installed, calibrated, and maintained.

g. The review of an sulfur dioxide or nitrogen oxides EER (or other gaseous pollutant monitored by CEM) will follow the same procedures as for the opacity EER review except that exceedances will be classified into only three categories and the number of three-hour average exceedances are tallied for the day and the quarter. Note there are 24-three hour averages within one day of operation.

h. Where an NOV is recommended, the reviewer must prepare a checklist along with the 2 way memo. The checklist must include all those elements normally included in that document. The checklist and the memo should be sent to the Engineering Unit and Section Chiefs, then to the Legal Section for preparation of an NOV in accordance with established procedures. A copy of the 2 way memo must go to the Compliance Section State specialist.

i. Where a referral is recommended, the same information as included in a checklist should be developed. This should be referred to the Legal Section by the Engineering Unit and Section Chiefs. If the Legal Section agrees that a referral is appropriate, the assigned attorney and engineer should proceed with preparation of the referral in accordance with established procedures. If the Legal Section does not concur in the referral, the two Sections must meet to resolve their differences, and proceed accordingly. If the differences can't be resolved, the Branch Chief must be called in to settle the matter.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

REPLY TO THE ATTENTION OF:
AE-17J

DEC 16 1992

Michael Dicen
Enforcement Section
Office Air Management
Indiana Department of Environmental
Management
105 South Meridian Street
P.O. Box 6015
Indianapolis, Indiana 46206-6015

Re: CEM's Reliability Requirements of NSPS Subpart Da

Dear Mr. Dicen (Mike)

Thank you very much for your letter of September 29, 1992. Your letter (see enclosed) asks for an elaboration of the continuous emission monitoring system (CEMS) reliability requirements in the New Source Performance Standard (NSPS), 40 CFR Part 60 Subpart Da. NSPS Subpart Da applies to electric utility boilers constructed after 1978. This NSPS rule requires the owner or operator of a subject boiler to install, operate, calibrate, and maintain sulfur dioxide (SO_2) and nitrogen oxide (NO_x) CEMS. It also requires the owner/operator to acquire emissions data from those CEMS and to continuously document compliance with the NSPS SO_2 and NO_x emission limitations.

Northern Indiana Public Service Company (NIPSCO), owner and operator of two Subpart Da boilers in Indiana, (Schahfer 17 and 18) argues that the Indiana Department of Environmental Management (IDEM) exceeds its legal authority by asking NIPSCO to commit within an administrative resolution order, to achieve and maintain CEMS reliabilities of 95 percent of total operating time of the boiler. NIPSCO believes that minimum CEMS reliability criteria are established at Section 40 CFR 60.47a(f) for all Subpart Da boilers and that the regulatory history, as presented in the preamble of the Subpart Da promulgation package, supports their contention.

NIPSCO believes that IDEM is blocked, by the language in Section 40 CFR 60.47a(f), from making a finding that any CEMS reliability value above the value of the minimum date requirement defined in that section is a violation of the requirements of Subpart Da. NIPSCO also believes that IDEM's CEMS reliability guideline of 95 percent is not enforceable because it is not "backed up by a rule".

The United States Environmental Protection Agency Region 5 (USEPA Region 5) disagrees with NIPSCO on all of its positions. NIPSCO has misconstrued the Subpart Da minimum data requirement and has incorrectly presented it as a minimum CEMS reliability requirement. IDEM's position that a CEMS should operate "continuously" is supported by both general and specific NSPS CEMS requirements. IDEM's use of a 95 percent CEMS reliability guideline to direct its enforcement activities is a reasonable and appropriate way for an agency, delegated to enforce a requirement that the CEMSs "are operated and data recorded during all periods of operation of the affected facility...", to exercise its enforcement discretion.

The 95 percent CEMS reliability criteria is also a reasonable and appropriate commitment for inclusion within the administrative agreed order that resolves NIPSCO's violations of both the specified minimum data requirement and the CEMS reliability requirement of subpart Da. In addition, from my review of IDEM's CEM summary reports on NSPS sources it appears that IDEM has imposed, and NIPSCO and all other Indiana Utilities with Subpart Da units have agreed to, SO_2 and NO_x excess emissions reporting on a hourly average. IDEM has clear authority to identify acceptable and unacceptable monitor performance for that type of CEMS requirement.

A review of the NSPS CEMS requirements will elucidate USEPA Region 5's determinations. First and foremost, the NSPS general provisions found in 40 CFR 60.13, apply to all of the continuous emission monitoring requirements in the Subparts, except as specifically exempted or excluded by language within the Subpart (see section 40 CFR 60.13(a)). Section 40 CFR 60.13(e) requires all CEMS to be in continuous operation except for monitoring system breakdowns and repair and periods of required quality control/quality assurance (QC/QA) activities.

Subpart Da does not have any language within it that excludes the CEMS required by that Subpart from the general requirements of Section 40 CFR 60.13(e). In fact Subpart Da has language at Section 40 CFR 60.47a(e) that reiterates the general monitoring requirement for continuous operation of the required CEMS. Therefore it is clear NIPSCO's Subpart Da SO_2 and NO_x CEMS's are required to operate at all times of boiler operation. IDEM's expectation of very high CEMS reliability for Subpart Da CEMs (100 percent minus the insignificant percentage of time involved in required QC/QA activities) is supported by the rule.

NIPSCO's reference to Section 40 CFR 60.47a(f) reflects a common misunderstanding that that Section some how defines a minimum CEMS operability requirement. Section 40 CFR 60.47a(f) does not establish any criteria or requirement on the CEMSs or their operation. That section imposes a requirement upon the owner/operator of an affected boiler to acquire a minimum amount of emissions data for computing each of the 30-day rolling averages necessary for documenting the boiler's continuous compliance with its emission limits. It is clearly established by the second sentence of 40 CFR 60.47a(f) and by, 40 CFR 60.47a(h) that this minimum data requirement is separate and distinct from the requirement to operate the CEMS.

The SO_2 and NO_x CEMSs are established in Subpart Da as the primary means for acquiring the hourly emissions data needed for meeting the minimum data requirement (see 40 CFR 60.47a(e) and (g)). However, the owner/operator is required by Section 40 CFR 60.47a(f) to supplement the hourly emissions data from the CEMS by using other monitoring procedures whenever the CEMS can not provide, at minimum, data for 55 percent of the hours of boiler operation within a period of 30 consecutive boiler operating days. This criteria is a trigger for supplemental data gathering not a criteria of acceptable CEMS performance. Recognition within the rule that the CEMS might not provide the minimum amount of data required for making a determination of continuous compliance does not constitute an acceptance of a level of CEMS performance at, or even close to, the value triggering supplemental emissions monitoring procedures.

IDEM is correct in asserting that NSPS Subpart Da CEMS reliabilities in the range of 55 percent to 95 percent are violations of 40 CFR 60.47a(e). IDEM is also correct in asserting that a NSPS Subpart Da owner/operator that acquires less than 55 percent of the data necessary to compute a 30-day rolling average is in violation of both 40 CFR 60.47a(e) and (f).

If you have any further questions on the subject please contact me at (312) 886-6869.

Sincerely yours,

Patric McCoy, Continuous Emissions Monitoring Expert
Air Enforcement Branch

Enclosure

cc: Fred Smith
Illinois Environmental Protection Agency

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Table 13-1. Target Criteria And Follow-up Actions EPA Region 4 CEM Enforcement Plan (Where CEM Systems Are Not The Compliance Test Method For The Emission Standard)

Time Out of Compliance (%)	Monitor Downtime (%)	Appropriate Follow-up Action
< 2.0	< 2.0	If both cases exist, send letter acknowledging receipt of EER, and encourage proper operations and management of CEM and facility.
> 2.0 and < 5.0	> 2.0 and < 5.0	If either or both cases exist, warn by letter or telephone of the unacceptable condition.
> 5.0 and < 10.0	> 5.0 and < 10.0	If either or both cases exist, then issue NOV and require performance (compliance) test for monitored pollutant, monitor certification (PS) tests, and request a corrective action plan to prevent condition from reoccurring.
> 5.0 and < 10.0 for two consecutive quarters or > 10.0	> 5.0 and < 10.0 for two consecutive quarters or > 10.0	If either or both cases exist, then issue NOV and require performance (compliance) test for monitored pollutant, monitor certification (PS) tests, and request a corrective action plan to prevent condition from recurring.

The Direct Compliance Approach

It has appeared cumbersome to some people that EER data is used to show that a system is not in compliance, and yet, an EPA compliance test is still required to initiate legal action. This method, however, offers significant negotiating power to the control agency and provides flexibility in the enforcement program. The disadvantage is that evaluating EERs and following up with inspections and compliance tests require more time and resources than an agency might have available.

The use of CEM systems for enforcement purposes, however, has also evolved in other ways. Since 1969, the states have been allowed to develop regulations more stringent than federal requirements, and have used CEM systems as a direct compliance method (McKee, 1974). States have also used source operating permits, variances, direct compliance orders, and other regulatory tools. Data from CEM systems can become legally enforceable data when used with these other mechanisms.

Today, for newly proposed or revised NSPS, EPA now specifies that CEM systems are to be used as the compliance method. The first of such regulations requiring that CEM systems be used for compliance measurements were promulgated for nonferrous smelters (copper, lead, and zinc smelters, Subparts P, Q, and R) in 1976. Continuous emissions monitors were established as the reference test method, but they are to be used only during specified periods of time as determined by the compliance test requirements. Only the data obtained during the scheduled period are considered compliance data; otherwise, the CEM system data are regarded as excess emissions monitoring data.

The following language is at the top of each quarterly EER summary report:

The following recommendations are made based expressly on excess emissions report ("EER") data from the quarter of year through the quarter of year, based on all EERs received as of the morning of Date. Source operation time, CEMS/COMS downtime, excess emissions, and the ability of a facility to correct problems from quarter to quarter were taken into account when making these recommendations. Action recommendations are only made for sources that were in operation at least 5% of the available time in the specified quarter. These are only recommendations, it is up to the district or local office to take appropriate action for any CEMS/COMS downtime or recorded excess emissions at assigned facilities. Recommendation do not take into account any actions that may already have been taken. The level of actions taken for CEMS/COMS downtime and recorded exceedences should be adjusted to take into account facility information that was not used in developing this list, such as Director's approved maintenance requests and monitor certification periods. Please be aware that this data may be the basis of future enforcement actions, so problems should be addressed accordingly.

Ohio EPA
Division of Air Pollution Control

Interoffice communication

to:	DAPC Managers; EER Contacts
from:	Todd Brown, CEMS/COMS Coordinator TB
subject:	4th Quarter, 2006, EER summary report
date:	March, 2006

Attached is the forth quarter, 2006, excess emissions report ("EER") summary report. Data used to compile this report were taken from all EERs received as of the morning of March 29, 2006. First quarter, 2006, EERs will be expected no later than May 15, 2007, and reports received after this date may show as late/not received in the next quarterly EER summary report.

As more and more continuous emissions monitoring systems ("CEMS") and continuous opacity monitoring systems are being installed, please be aware that all CEMS and COMS are certified through Ohio EPA's Central Office, and that

During the third quarter a question regarding the classification of excess emissions recorded by a CEMS during a Director's approved Scheduled Maintenance Request was posed. Although an approved request essentially is an acknowledgment that the Director will exercise enforcement discretion (read not take enforcement action) during the approved period, this does not mean that excess emissions recorded during this period can be classified as "exempt". Excess emissions recorded during an approved request should be recorded and reported in the same manner as all other exceedences, with no exemptions allowed for gaseous or BAT based opacity limits being exceeded. As an FYI, these emissions must also be reported on the facility's deviation reports.

USEPA continues to pursue enforcement on facilities that have CEMS data showing as little as 1 % excess emission and/or CEMS downtime. With this in mind, please be sure that downtimes and excess emission times being reported on the EER summary forms are accurate, and any opacity exceedences are correctly classified. Ohio EPA's action trigger levels will remain at 5 % until such time that USEPA provides written guidance indicating that alternate levels should be used.

Ohio's EER database is sent to USEPA on a quarterly basis. The database is sent to USEPA at the end of the same month the EERs are due at Central Office, so there is not a big window to chase down missing or questionable data. Please double-check data being sent to assure that they are correct, being reported clearly, and that each facility/emissions unit that is required to report has been included.

Please review the data included in this summary for facilities within your jurisdiction. Corrections or adjustments should be sent to my attention. If you have questions regarding this report, or suggestions that would make the report more useful or easier to read, please call me at (614) 644-4839.

cc: Jim Orlemann, CO