Kansas Administrative Regulations

Department of Health and Environment

Article 19.—Ambient Air Quality Standards and Air Pollution Control—Stack Height Requirements.

28-19-19. Continuous emission monitoring.

(a) All sources subject to the provisions of this regulation shall install, test and continuously operate a continuous emission monitoring system or systems (CEMS) and comply with data reduction requirements of the department and reporting, record keeping and quality assurance requirements established by this regulation. For any emission unit subject to this regulation, CEMS data which shows emissions in excess of an applicable emission limitation or standard shall be evidence that the emission unit is in noncompliance with the emission limitation or standard.

(b) Emission units exempt from the provisions of this regulation include:

(1) Those which have been required to install CEMS under provisions of K.A.R. 28-19-83; and

(2) fossil-fuel fired steam generators whose annual capacity factor, as reported to the federal power commission, is limited by permit condition under K.A.R. 28-19-14 to be less than 30 percent. If, upon application by the source owner or operator, the department approves removal of the capacity factor restriction, the appropriate CEMS shall be installed and operational within six months of the date that the department approved the restriction removal.

(c) Emission units required by this regulation to operate CEMS and monitor and report emissions include:

(1) Coal-fired steam generators that have a heat input greater than 250 million British Thermal Units per hour (BTU/hr). These generators shall be monitored for opacity; and

(2) coal-fired steam generators that have a heat input greater than 250 million BTU/hr and that have installed sulfur dioxide (SO_2) emission control equipment. These

generators shall be monitored for SO_2, and carbon dioxide (CO_2) or oxygen (O_2) or some combination of these emissions; and

(3) fluid-bed catalytic cracking units catalyst regenerators at petroleum refineries with greater than 20,000 barrels per day fresh feed capacity. Such regenerators shall be monitored for opacity.

(d) Each emission unit required to operate CEMS shall complete the installation and demonstrate compliance with the performance tests of such equipment by November 1, 1987.

(e) If the affected emission unit is unable to comply with the requirements of subsection (d), a compliance schedule shall be submitted by the source owner or operator to and received by the department not later than June 1, 1987. A justification for the extended compliance schedule shall be submitted. The request may be approved or denied by the department and the source owner or operator shall be informed of the department's determination and the reasons for that decision. An extension shall not be permitted beyond November 1, 1988.

(f) The owner or operator of an affected emission unit shall notify the department of the following:

(1) the anticipated date of installation of the CEMS postmarked at least 30 days prior to that date. Each CEMS shall be installed in a location approved by the department before installation begins; and

(2) the date upon which CEMS performance tests commence in accordance with this regulation. Notification shall be postmarked not less than 30 days prior to that date.

(g) The performance specifications and test procedures for opacity, SO_2, O_2, and CO_2 CEMS in 40 CFR Part 60 Appendix B, as in effect on July 1, 1986, are adopted by reference except that reference to "Administrator" in 40 CFR Part 60 Appendix B shall mean the secretary of the department of health and environment. The specification test requirements for the CEMS are as follows:

(1) Performance Specification 1 for opacity;

(2) Performance Specification 2 for SO_2;

(3) Performance Specification 3 for CO_2; and

(4) Performance Specification 3 for O_2.

(h) Each source owner or operator subject to this regulation shall maintain a file of all measurements, including CEMS, monitoring device and performance testing measurements, all CEMS performance evaluations, all CEMS or monitoring device calibration checks, adjustments and maintenance performed on these systems or devices and all other information required by this regulation that shall be recorded in a permanent form suitable for inspection by a department or U.S. environmental protection agency representative. The file shall be retained at the affected source for at least two years following the date of the measurements, maintenance, reports, and records, or if longer, during the pending of any action to enforce the requirements of this regulation.

(i) All CEMS shall be operated continuously except for system breakdowns, repairs, calibration checks and zero and span adjustments required under the quality assurance plan of this regulation.

(j) Source emission shall be monitored during all phases of operation except during periods of scheduled emissions unit outages or turnaround. Emission units not in operation are not required to monitor emissions.

(k) Owners or operators of sources subject to this regulation shall submit a written report of emissions in excess of the applicable standards in a manner prescribed by the department for each calendar quarter to the department and it must be postmarked before the 30th day following the end of each calendar quarter. The report shall provide the following information:

(1) the total time the affected emissions unit was in operation for the quarter;

(2) the magnitude of excess emissions, computed in accordance with this regulation, any conversion factors used, and the date and time each period of excess emissions began and ended;

(3) specific identification of each period of excess emissions that occurred during startups, shutdowns, malfunctions and any other reason. The nature and cause of the excess emissions, the corrective action taken and the preventive measures adopted shall be specified;

(4) the date and time identifying each period during which the CEMS was inoperative except for the zero and span checks. The nature and cause of the CEMS breakdown

and the repairs or corrective action taken shall be identified. Proof of CEMS performance may be required by the secretary whenever system repairs or adjustments have been made;

(5) the result of each performance audit; and

(6) if no excess emissions have occurred or the CEMS have not required corrective actions, a statement verifying that fact.

(l) The information required by subsections (k)(1) through (k)(6) shall be summarized in the following manner for monitoring and reporting purposes:

(1) Measurements of opacity shall be reduced to one-minute periods. Each one-minute period shall be calculated from 10 or more data points equally spaced through each one-minute period;

(2) gaseous measurements shall be reduced to three-hour averages in units of the emission standards; and

(3) data recorded during periods of CEMS breakdowns, repairs, calibration checks and zero and span adjustments shall not be included in the data averages or the emission report. An arithmetic or integrated average may be used for those time periods. After conversion to units of the standard, the data may be rounded to the same number of significant digits used to specify the emission standard.

(4) Owners or operators of affected sources shall use Method 19 of 40 CFR Part 60, appendix A, as in effect July 1, 1989, for converting CEMS data to units of the standard.

(5) The secretary may allow data reporting or reduction procedures varying from those set forth in this regulation if the owner or operator of a source shows to the satisfaction of the secretary that the procedures are at least as accurate as those of the regulation.

(m) Not less than 30 days prior to commencement of CEMS performance tests, each source owner or operator required to operate CEMS shall develop and submit to the department a quality assurance plan that shall contain all provisions necessary to ensure that the CEMS produce continuous data with sufficient accuracy and precision to allow the department to determine whether the emissions unit is in compliance with the applicable opacity and SO_2 limitations. Plan requirements for CEMS shall include, at a minimum, the requirements and recommendations of the CEMS manufacturer. The

provisions of the quality assurance plan shall be enforceable by the department as independent requirements in addition to this regulation. Additional procedures may be imposed by the department or the source owner or operator may be required to revise quality control procedures. The complete quality assurance plan shall be kept at the affected source, shall be accessible to maintenance personnel and shall include:

(1) For quality control of opacity CEMS:

(A) calibration of the CEMS including a daily zero and span check, zero compensation accumulations and window cleaning;

(B) calibration drift determination and adjustment, including daily zero and span checks, zero compensation accumulation and window cleaning;

(C) preventive maintenance procedures for all monitoring system components, including the purge air system and the data recording system; and

(D) data recording and reporting procedures that are consistent with the record-keeping and reporting requirements of this regulation, including examples of all record-keeping formats; and

(2) for quality assurance of opacity CEMS:

(A) a precision assessment which includes a daily check of zero and span compensation levels;

(B) an annual accuracy audit which includes a zero alignment with an equivalency of true zero and simulated zero check;

(C) a quarterly accuracy audit which includes procedures for conducting the audit, the selection of filter values and the certification of filter values;

(3) for corrective action of opacity CEMS:

(A) if the 24-hour zero or span drift exceeds ± four percent opacity, a description of necessary corrective action, including necessary calibration and cleaning followed by a verification that the drift is eliminated;

(B) if zero or span drift exceeds CEMS drift limits for five consecutive span checks, a requirement that the frequency of quality assurance checks must be increased;

(C) if the zero alignment exceeds two percent opacity, a requirement that corrective action be taken and that the action must be documented in records and quarterly reports;

(D) if the performance audit calibration error exceeds ± plus or minus three percent opacity, a requirement that corrective action must include a recalibration of the monitor, followed by a repetition of the performance audit;

(4) for quality control of SO_2, O_2 and CO_2 CEMS: Procedures for calibration, calibration drift determination and adjustment, preventive maintenance, data recording and reporting, and malfunction abatement;

(5) for quality assurance of SO_2, O_2 and CO_2 CEMS: A description of the procedures and calculations for a precision assessment, accuracy assessment procedures including relative accuracy and a cylinder gas audit, and the calculations used in relative accuracy audits and cylinder gas audits;

(6) for corrective action of SO_2, O_2 and CO_2 CEMS, a requirement that corrective action must be taken when span drift response is greater than ± five percent of CEMS span value, and when relative accuracy audit response and CEMS system cylinder gas audit response is greater than ± 20 percent.

(n) If the effluents from two or more affected emissions units of similar design and operating characteristics are combined before being released to the atmosphere, the secretary may allow CEMS to be installed on the combined effluent, subject to petition by the source owner or operator. If the affected emissions units are not of similar design and operating characteristics, or when the effluent from one affected emissions unit is released to atmosphere through more than one point, the source owner or operator shall install applicable CEMS on each separate effluent unless prior approval of fewer CEMS has been granted by the department.

(o) If the source owner or operator wishes to use different, but equivalent, procedures and requirements for CEMS than those specified in this regulation, the source owner or operator shall provide a demonstration of equivalency before the approval of such alternative systems will be granted by the secretary with concurrence from the region VII administrator of the U.S. environmental protection agency. (Authorized by and implementing K.S.A. 65-3005, 65-3010; effective May 1, 1987; amended May 1, 1988; amended June 8, 1992.)

***** Authenticated Kansas Administrative Regulation *****