RULE 328. CONTINUOUS EMISSION MONITORING. (Adopted 6/27/1977, readopted 10/23/1978)

A. Definitions

Definitions used shall be those given in 40 CFR, Part 51, or equivalent definitions established by mutual agreement of the District, the California Air Resources Board, and Federal Environmental Protection Agency.

B. Exemptions

Exemptions may be granted to sources:

1. Complying with new source performance standards promulgated under 40 CFR Part 60 pursuant to Section III of the Clean Air Act; or

2. Not subject to an applicable emission standard of the State Implementation Plan; or

3. Scheduled for retirement within five (5) years if written evidence and guarantees are provided.

4. Methods, specifications and standards deemed equivalent by the District, the California Air Resources Board and the Federal Environmental Protection Agency may be substituted for those specified for data reduction, monitoring systems, calibration gas, cycling times and equipment performance specifications.

C. Requirements

1. The Control Officer shall require the owner or operator of each stationary source (listed in a. through f.) below to install, calibrate, operate and maintain all monitoring equipment necessary for continuously monitoring the pollutants specified. Monitoring and recording shall begin by October 27, 1978.

    a. Fossil fuel fired steam generators with a heat input of 63 million kilogram calories (250 million Btu) or more per hour and a use factor of at least 30 percent, when such facility is subject to an emission standard of the State Implementation Plan for the pollutant in question.

        1) Continuous monitors required:

            a) Nitrogen oxides

            b) Oxygen or carbon monoxide

            c) Sulfur dioxide (only for steam generators utilizing control equipment to reduce emissions to District requirements).

            d) Opacity monitoring - opacity monitoring shall not be required where gaseous fuel is the only fuel burned, or where oil or a mixture of gas and oil is the only fuel burned and the source can meet particulate and opacity regulation without collection equipment and the source has not been found, through administrative or judicial proceedings, to be in violation of regulations for nuisance, opacity or particulate emissions.

b. New nitric acid plants shall continuously monitor nitrogen oxides.

c. Sulfuric acid plants shall continuously monitor sulfur dioxide.

d. New fluid bed cokers with feed rates greater than 1,590,000 liters (10,000 Bbls) per day shall continuously monitor sulfur dioxide.

e. CO boilers of regenerators of fluid bed catalytic cracking units shall continuously monitor sulfur dioxide.

f. Fluid bed catalytic cracking units shall continuously monitor sulfur dioxide and opacity.

2. The Control Officer may require the owner or operator of a stationary source to install, calibrate, operate and maintain in good working order equipment for continuously monitoring and recording emissions from a stationary source, provided that:

a. The stationary source emits, into the atmosphere, 2.3 kilograms (5 lbs/hr) or more of nonmethane hydrocarbons, oxides of nitrogen, oxides of sulfur, reduced sulfur compounds or particulate matter or 40 lbs/hr of any contaminant and;

b. The California Air Resources Board has determined and specified, pursuant to Health and Safety Code, Sections 42701 and 42702, that monitoring equipment is available, technologically feasible, and economically reasonable for the type of stationary source in question; and

c. After considering all of the relevant circumstances, the Control Officer has determined that requiring such monitoring equipment is necessary and reasonable. In making such determination, the Control Officer shall, without limitations, consider the economic impact on the stationary source and the extent to which similar emission information may be obtained through other less costly methods or reporting procedures with comparable accuracy and control.

3. Opacity monitoring will not be required until the California Air Resources Board and the Federal Environmental Protection Agency agree on performance requirements.

4. All monitoring devices shall be equipped with a continuously operating chart recorder. The chart recordings shall be annotated with date, time and operator's initials at the following times:

a. At the beginning of each work shift

b. At the beginning of each start-up and shut-down of the process equipment.

c. Anytime any change is made to the monitor and/or its recorder.

d. Anytime there is a process rate change.

5. When the measured pollutant values are required to be corrected to a specified factor and this correction factor is not incorporated as an integral part of the primary monitoring device (such as correction to 3% O_2) independent, continuous, secondary monitoring for the specified correction factor shall be required. The secondary monitor shall comply with all the applicable provisions of this document.

6. The owner or operator shall permit the Control Officer to inspect the monitoring equipment during regular business hours to insure that it is functioning properly and that calibration references used for zeroing or spanning are traceable to the National Bureau of Standards.

7. Information regarding the monitoring equipment, the recorded data and other records relating to the monitoring shall be made available to the District upon request.

D. Discontinuance of In-Stack Monitoring

The Control Officer may consent to the discontinuance of the monitoring system when it appears that the reasons for monitoring no longer exist.

E. Appeals to Hearing Board

Within thirty (30) days after receiving notice to install in-stack monitoring system, or at any time after monitoring starts, the owner or operator may request the Hearing Board to determine whether the conditions of C.1 and C.2 exist, the equipment required is appropriate; and the terms and conditions of operation are appropriate. The Control Officer's notice to install shall be suspended until decision by the Hearing Board.

F. Records Maintenance

Owners or operators subject to this Rule shall maintain, for a period of at least two years:

1. A recorded log in a permanent form suitable for inspection which includes:

   a. Occurrence and duration of any start-up, shut-down or malfunction in the operation of any affected facility.

   b. Performance testing, evaluations, calibrations, checks, adjustments, and maintenance of any continuous emission monitors that have been installed pursuant to these Rules.

2. Records produced from monitoring equipment.

G. Reporting Requirements

Owners or operators subject to this Rule shall:

1. Notify the Control Officer of any breakdown or shut-down of the monitoring equipment within 4 hours of the start of the next business day.

2. Report to the Control Officer, within 48 hours after occurrence, the violation of any emission standard to which the stationary source is required to conform.

3. Submit a quarterly written report during the first week of each calendar quarter, to include:

   a. Monitoring system failures for periods when the continuous monitoring system was inoperative except:

      1) Zero/Span checks.

      2) Monitoring system repair and adjustments.

b. The date, time interval, magnitude and nature of excess emissions, reported in the units of the applicable emission standard. The cause of the violation, corrective actions taken and preventive measures adopted shall be provided.

c. Reports on opacity violations shall provide:

1) The number of (3) three minute periods during which the average opacity exceeded the standard for each hour of operation.

2) Average values may be obtained by integration over the averaging period or by arithmetically averaging a minimum of four equally spaced instantaneous opacity measurements each minute. Any time period exempted shall be considered before determining the excess averages of opacity.

4. Negative Declarations

Negative declarations shall be submitted quarterly when no excess emissions have occurred.

H. **Data Reporting Criteria Guidelines**

1. Oxides of nitrogen (NOx) values measured in parts per million of flue gas volume shall be reported as Nitrogen Dioxide (NO_2) corrected to 3% O_2.

2. Reporting criteria for other pollutants - to be supplied.

3. Data Reduction: Data shall be reduced according to 40 CFR Part 51, Appendix P, Paragraph 5.0 to 5.3.3.

I. **Instrumentation**

Instrumentation required under this Rule shall meet the requirements of the sections below. In the event of conflicting requirements or standards, the strictest or most rigorous requirement shall be followed.

1. Monitoring devices shall be operated, maintained and calibrated in a manner consistent with the manufacturer's recommendations. The manufacturer shall specify that which is necessary to insure that the devices will continually operate within the performance specification limits. Maintenance and calibration criteria shall include, but is not limited to:

a. Maintenance and calibration frequency and procedures. (A copy of the manufacturer's recommended maintenance and calibration procedures shall be submitted to the District prior to installation. Any subsequent user changes to these procedures shall be submitted to the District within ten (10) days of adoption.)

b. Specifications for the calibration standard (gas). The calibration standard value shall be certified by a method approved by the District at a frequency of not less than once every three months.

2. Systems shall be installed, calibrated, maintained and operated in accordance with the following sections of 40 CFR.

Fossil-Fuel Fired Steam Generators: Section 60.45 CFR.
Sulfuric Acid Plants: Section 60.84 CFR.
Nitric Acid Plants: Section 60.73 CFR.
Petroleum Refineries: Section 60.105 CFR.

3. Calibration gas mixtures shall meet the specifications in 40 CFR, Part 51, Appendix P, Section 3.3, and Part 60, Appendix B. Performance Specification 2, Section 2.1.

4. Cycling times shall be those specified in 40 CFR 60, Appendix P, Sections 3.4, 3.4.1 and 3.4.2.

5. SO_2 and NOx monitors shall meet the applicable performance specification requirements in 40 CFR, Part 51, Appendix P, and Part 60, Appendix B.

6. CO_2 and O_2 monitors shall meet the performance specification requirements in CFR 40, Part 51, Appendix P, and Part 60.

7. Opacity monitors shall meet the performance specification requirements in CFR 40, Part 51, Appendix P, and part 60, Appendix B.

8. Minimum Instrument Specifications:

   a. Sulfur Dioxide/Nitrogen Oxides

Parameter	**Specification**
Accuracy*	20% of the mean value of the reference method test data
Calibration Error*	5% of each (50%, 90%) calibration gas mixture value
Zero Drift (2 hour)*	2% of span
Zero Drift (24 hour)	2% of span
Calibration Drift (2 hour)*	2% of span
Calibration Drift (24 hour)*	2.5% of span
Response Time	15 minutes maximum
Operation Period	168 hours minimum

   * Expressed as sum of absolute mean value plus 95 percent confidence interval of series of tests.

   b. Oxygen or Carbon Dioxide

Parameter	**Specification**
Zero Drift (2 hour)*	0.4% O_2 or CO_2
Zero Drift (24 hour)*	0.5% O_2 or CO_2
Calibration Drift (2 hour)*	0.4% O_2 or CO_2
Calibration Drift (24 hour)*	0.5% O_2 or CO_2
Operational Period	168 hours minimum
Response Time	10 minutes

   * Expressed as sum of absolute mean value plus 95 percent confidence interval of series of tests.

c. Opacity Instrumentation specifications will be supplied after technical concurrence has been reached between California Air Resources Board and Federal Environmental Protection Agency Region IX.

A copy of the manufacturer's design performance specifications showing compliance to all of the above requirements shall be submitted to the District prior to installation.