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PART 222

DISTRIBUTED GENERATION SOURCES

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(Version Date: May 12, 2004)

**§222.1 Applicability.** The provisions of this Part apply to the owner and operator of any distributed generation source that is:

- (a) not located at a major stationary source for NO<sub>x</sub>, and
- (b)(1) for a new distributed generation source, has a maximum electrical output rating greater than or equal to 50 KW;
- (2) for an existing distributed generation source located in a severe ozone nonattainment area, has a maximum mechanical power rating greater than or equal to 200 brake horsepower;
- (3) for an existing distributed generation source outside of a severe ozone nonattainment area, has a maximum mechanical power rating greater than or equal to 400 brake horsepower.

**§222.2 Abbreviations.** (a) Measurements, abbreviations, and acronyms used in this Part are defined as follows:

- (a) CO: carbon monoxide
- (b) g/bhp-hr: grams per brake horsepower-hour
- (c) KW: kilowatt
- (d) lb: pounds
- (e) MWh: megawatt hour
- (f) ppmvd at 15% O<sub>2</sub>: parts per million by volume on a dry basis corrected to 15% oxygen

**§222.3 Definitions.** (a) To the extent that they are not inconsistent with the specific definitions in subdivision (b) of this section, the general definitions of Part 200 of this Title apply to this Part.

(b) For the purposes of this Part, the following definitions apply:

- (1) Distributed generation source. A turbine, microturbine, or engine that is used to produce

electricity for use at the facility at which it is located.

(2) Emergency power generating stationary internal combustion engine. A stationary internal combustion engine that operates as a mechanical or electrical power source only when the usual supply of power is unavailable, and operates for no more than 500 hours per year. The 500 hours of annual operation for the engine include operation during emergency situations, routine maintenance, and routine exercising (e.g., test firing the engine for one hour a week to ensure reliability). Stationary internal combustion engines used for peak shaving or peak demand response programs are not emergency power generating stationary internal combustion engines.

(3) Existing distributed generation source. A distributed generation source for which operation commenced prior to January 1, 2005.

(4) Lean burn internal combustion engine. Any stationary internal combustion engine that is operated so that the amount of oxygen in the engine exhaust is 1.0 percent or more by volume on a dry basis.

(5) Microturbine. A stationary internal combustion engine that operates on a turbo jet cycle.

(6) New distributed generation source. A distributed generation source for which operation commences on or after January 1, 2005.

(7) Operation commences. The date of the initial start-up of the combustion chamber of the distributed generation source.

(8) Renewable fuel. Gaseous fuel generated from the decomposition of organic waste.

(9) Rich burn internal combustion engine. Any stationary internal combustion engine that is operated so that the amount of oxygen in the engine exhaust is less than 1.0 percent by volume on a dry basis.

(10) Tune-up. Adjustments made to the combustion process in order to optimize combustion efficiency of the source in accordance with procedures provided by the manufacturer or an approved specialist.

(11) Turbine. A stationary internal combustion engine that operates on the Brayton Cycle.

**§222.4 Control requirements.** (a) The following NO<sub>x</sub> emission limits apply to distributed generation sources that are subject to the provisions of this Part. Compliance with these limits shall be based upon a one-hour mean and when the source is operating at full load.

(1) Effective January 1, 2005, new distributed generation sources must be in compliance with a NO<sub>x</sub> emission limit of 1.60 lb/MWh.

(2)(i) Effective January 1, 2005 through December 31, 2009, new diesel engines that are emergency power generating stationary internal combustion engines must be in compliance with a NO<sub>x</sub> standard of 16.0 lb/MWh.

(ii) Effective January 1, 2010, new diesel engines that are emergency power generating stationary internal combustion engines must be in compliance with a NO<sub>x</sub> standard of 6.0 lb/MWh.

(3) Effective January 1, 2005, a NO<sub>x</sub> emission limit of 4.40 lb/MWh applies to new distributed generation sources that are fired with renewable fuels.

(4) Effective January 1, 2008, the following NO<sub>x</sub> emission limits apply to existing distributed generation sources except emergency power generating stationary internal combustion engines:

microturbines: 1.60 lb/MWh

natural gas-fired turbines: 50 ppmvd at 15% O<sub>2</sub>

diesel-fired turbines: 100 ppmvd at 15% O<sub>2</sub>

rich burn internal combustion engines: 2.0 g/bhp-hr

lean burn internal combustion engines: 3.0 g/bhp-hr

diesel engines: 9.0 g/bhp-hr

(b) Effective January 1, 2005, all new distributed generation sources must be in compliance with a CO emission limit of 6.50 lb/MWh. Compliance with this limit shall be based upon a one-hour mean and when the source is operating at full load.

(c) Effective January 1, 2007, all new and existing oil-fired distributed generation sources must be in compliance with a PM<sub>10</sub> emission limit of 0.10 lb/MMBTU.

(d) Each distributed generation source must be tuned-up at least once per year using the procedures recommended by the manufacturer. The first annual tune-up must be conducted within one year of either the date operation commences for new sources or by December 31, 2005 for existing sources.

**§222.5 Variances from the NO<sub>x</sub> emission limits for existing distributed generation sources.** For those existing distributed generation sources for which the owner or operator demonstrates that the applicable NO<sub>x</sub> emission limit set forth in section 222.4 is not technically feasible, the owner or operator may request that the Department set a higher source-specific emission limit.

**§222.6 Monitoring and record keeping.**

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- (a) Emission tests must be conducted on all new distributed generation sources, except emergency power generating stationary internal combustion engines, within one year of the date operation commences in order to demonstrate compliance with the NO<sub>x</sub>, CO and PM10 emission standards, as applicable. Additional emission tests must be conducted every five years. Any distributed generation source which consists of a model that has been certified under the California Air Resources Board Distributed Generation Certification Program is exempt from the emission testing requirement.
- (b) Emission tests must be conducted on all existing distributed generation sources, except emergency power generating stationary internal combustion engines, at a frequency of once every five years in order to demonstrate compliance with the applicable NO<sub>x</sub> and PM10 emission limits, as applicable. The first emission test must be conducted during calendar year 2008.
- (c) All emission testing must be conducted pursuant to the following protocols: **(Note: to be determined)**.
- (d) Facilities must maintain records of any tune-ups or stack testing conducted on a source for a minimum of 10 years. Tune-up records must contain the following information and must be maintained in a bound log book or other format approved by the Department:
- (1) the date on which each distributed generation source was tuned-up;
  - (2) the name, title and affiliation of the person(s) who conducted the tune-up; and
  - (3) any other information which the Department may require as a condition of approval of any permit.