

## Subpart 222-1

### Distributed Generation Sources

#### Section 222-1.1 Applicability.

- (a) The effective date of this Subpart is May 1, 2007.
  
- (b) The provisions of this Subpart apply to owners and operators of the following stationary sources:
  - (1) distributed generation sources in a severe ozone nonattainment area with a maximum mechanical output rating of 200 horsepower or greater;
  
  - (2) distributed generation sources outside a severe ozone nonattainment area with a maximum mechanical output rating of 400 horsepower or greater.
  
- (c) The provisions of this Subpart do not apply to sources subject to one of the following federal regulations:
  - (1) 40 CFR 60, Subpart III
  
  - (2) 40 CFR 60, Subpart KKKK

#### Section 222-1.2 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 and Subpart 201-2 of this Title apply to this Part.
  
- (b) For the purposes of this Part, the following definitions apply:

(1) 'Biogas'. Gaseous fuel generated in an anaerobic animal waste digester, wastewater treatment plant, or solid waste landfill.

(2) 'Commence operation'. To have begun any mechanical, chemical, or electronic process including the start-up of the combustion chamber of a distributed generation source at a facility.

(3) 'Demand response source'. A distributed generation source that operates for no more than 500 hours per year, or as limited to comply with any other applicable requirement, as a mechanical or electrical power source when the usual supply of power is unavailable and for a limited number of hours per year when called upon to reduce demand on the electric grid as set forth in sections 222-1.3 and 222-2.2 of this Part. Routine maintenance and routine exercising of the distributed generation source (e.g., test firing the source for one hour a week to ensure reliability) will not count towards the annual operation limits set forth in sections 222-1.3 and 222-2.2 of this Part. A distributed generation source subject to this Subpart that complies with the appropriate NO<sub>x</sub> emission limit set forth in subdivision 222-1.5(a) and all other applicable requirements of this Subpart is not considered a demand response source for the purposes of this Subpart.

(4) 'Demand response program sponsor'. A company or organization that sponsors one or more demand response programs.

(5) 'Distributed generation source'. Any stationary internal combustion engine used to produce electricity for use at the facility at which it is located. This includes emergency power generating stationary internal combustion engines.

(6) 'DPS'. The New York State Department of Public Service.

(7) '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 generation are not emergency power generating internal combustion engines.

(8) 'Lean burn internal combustion engine'. Any stationary internal combustion engine that operates with a reciprocating motion and is operated so the amount of oxygen in the engine exhaust is 1.0 percent or more by volume on a dry basis.

(9) 'Microturbine'. Any stationary internal combustion engine that operates with a rotary motion and has a maximum electrical output of 250 kilowatts or less.

(10) 'Model year'. The manufacturer's annual production period for each engine which includes January 1 of such calendar year or, if the manufacturer has no annual production period, the calendar year.

(11) 'Nominal full load'. The maximum rating a source can be operated at on a continuous basis.

(12) 'Pollution control device'. Post-combustion control equipment designed to remove NO<sub>x</sub>, CO, or particulate matter from the exhaust stream of a distributed generation source.

(13) 'Rich burn internal combustion engine'. Any stationary internal combustion engine that operates with a reciprocating motion and is not a lean burn internal combustion engine.

(14) '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.

(15) 'Turbine'. Any stationary internal combustion engine that operates with a rotary motion and has a maximum electrical output of more than 250 kilowatts.

### Section 222-1.3 General.

(a) 'Transition of demand response sources with existing registration certificates or permits.' A demand response source subject to this Subpart must comply with all applicable requirements upon the effective date of this Part.

(1) By August 1, 2007, owners and operators of a demand response source operating under a registration certificate or permit issued by the department prior to May 1, 2007 must notify the department in writing whether the source will operate as an emergency power generating stationary internal combustion engine, a demand response source, or will accept the applicable fuel-specific emission limit established in subdivision 222-1.5(a) of this Subpart. The department will issue a modified registration certificate or permit to include the applicable requirements of this Subpart.

(2) If an owner or operator of a demand response source subject to this Subpart fails to notify the commissioner as required by paragraph 222-1.3(a)(1) of this Subpart, the source must comply with the fuel-specific NO<sub>x</sub> emission limits set forth in subdivision 222-1.5(a) of this Subpart.

(b) The total capacity of demand response sources subject to this Subpart located in the New York City metropolitan area, excluding Rockland County, must not exceed the following limits:

(1) effective January 1, 2007: 271.9 megawatts

(2) effective January 1, 2011: 150.0 megawatts

(i) The capacity of demand response sources will be allocated proportionally to demand response program sponsors based upon the allocated capacity to each demand response program sponsor on May 1, 2007.

(3) effective January 1, 2014: 50.0 megawatts

(i) The capacity of demand response sources will be allocated proportionally to demand response program sponsors based upon the allocated capacity to each demand response program sponsor on May 1, 2007.

(c) The total capacity of demand response sources subject to this Subpart located outside of the New York City metropolitan area, and including Rockland County, must not exceed the following limits:

(1) effective January 1, 2007: 111.4 megawatts

(2) effective January 1, 2011: 100.0 megawatts

(i) The capacity of demand response sources will be allocated proportionally to demand response program sponsors based upon the allocated capacity to each demand response program sponsor on May 1, 2007.

(3) effective January 1, 2014: 50.0 megawatts

(i) The capacity of demand response sources will be allocated proportionally to demand response program sponsors based upon the allocated capacity to each demand response program sponsor on May 1, 2007.

(d) Except as provided in paragraph (1) of this subdivision, a demand response source subject to this Subpart is limited to no more than 30 hours of annual operation in response to calls to reduce demand on the electric grid.

(1) Operation during an electric grid reliability emergency. At the discretion of the commissioner, operation in excess of the 30 hour annual limit established in this section may be excused if operation of the demand response source occurred during an electric grid reliability emergency certified by DPS. In such circumstances, the following reporting requirements must be adhered to:

(i) The commissioner must be notified by DPS of an electric grid reliability emergency within 24 hours of the start of the event.

(ii) Within 30 days of the end of an electric grid reliability emergency, the owner or operator of a demand response source(s) must submit documentation that the source operated during the event.

(iii) Within 90 days of the end of the electric grid reliability emergency, the commissioner must be provided with certification from DPS of the location(s) affected, the start and end times of the event, the specific demand response sources that operated and the number of hours each demand response source was operated.

(e) Emergency power generating stationary internal combustion engines are subject only to the requirements set forth in subdivisions 222-1.4(a), 222-1.5(d), 222-1.8(c), and 222-1.8(d) of this Subpart.

Section 222-1.4 Prohibitions.

(a) Maintenance and testing of emergency power generating stationary internal combustion engines and demand response sources may not be conducted between the hours of 1:00 pm and 8:00 pm during the period of May 1 through October 15 of each year.

(b) Any source subject to this Subpart is prohibited from operating as a demand response source without first obtaining a registration certificate or permit issued in accordance with Part 201 of this Title.

(c) An owner or operator of any distributed generation source subject to this Subpart is prohibited from operating the source such as to cause or allow emissions in excess of emission limits set forth in this Subpart.

Section 222-1.5 Control requirements.

(a) ‘NO<sub>x</sub> emission limits for all distributed generation sources except demand response sources.’

| Effective Date  | Source Type                                 | Emission Limit   |
|-----------------|---|--|
| January 1, 2008 | Microturbines firing any fuel except biogas | 0.54 grams per brake horsepower-hour (g/bhp-h)                               |
|                 | Turbines firing natural gas                 | 50 parts per million by volume on a dry basis corrected to 15 percent oxygen |

|                 |                                      |   |
|-----------------|--------------------------------------|---|
|                 | Turbines firing diesel oil           | 100 parts per million by volume on a dry basis corrected to 15 percent oxygen |
|                 | Lean burn engines firing natural gas | 3.0 g/bhp-h   |
|                 | Rich burn engines firing natural gas | 2.0 g/bhp-h   |
|                 | Engines firing diesel fuel           | 7.5 g/bhp-h   |
| January 1, 2010 | Microturbines firing biogas          | 1.5 g/bhp-h   |
|                 | Turbines firing biogas               | 50 parts per million by volume on a dry basis corrected to 15 percent oxygen  |
|                 | Lean burn engines firing biogas      | 3.0 g/bhp-h   |
|                 | Rich burn engines firing biogas      | 2.0 g/bhp-h   |

(b) 'Demand response sources'. Effective January 1, 2009, demand response sources subject to this Subpart must meet a NO<sub>x</sub> emission limit of 9.0 g/bhp-h.

(c) 'Particulate matter (PM)'. Effective January 1, 2008, all distributed generation sources subject to this Subpart firing diesel fuel must meet a PM emission limit of 0.10 pounds per million British thermal units; or the sulfur content of the diesel fuel burned by the source must be 15 parts per million or less and the distributed generation source must be equipped with a particulate control device designed to remove 85 percent or more of the PM from the exhaust stream.

(1) 'Exception'. Demand response sources subject to this Subpart must meet the PM standard set forth in this subdivision effective January 1, 2009.

(d) 'Tune-up'. Each distributed generation source must be tuned-up at least once every 12 months. The first tune-up must be conducted within 12 months after the source commences operation or by December 31, 2007, whichever is later.

Section 222-1.6 Variances from the NO<sub>x</sub> emission limits for distributed generation sources subject to this Subpart. Except for demand response sources, the owner or operator of a source that cannot meet the NO<sub>x</sub> emission limit(s) set forth in section 222-1.5 of this Subpart may submit a request to the commissioner for a higher source-specific emission limit. The owner or operator of such a source must demonstrate to the satisfaction of the commissioner that it is technically infeasible to meet the applicable emission limit. Such requests shall be granted or denied at the discretion of the commissioner.

Section 222-1.7 Emissions testing.

(a) An emissions test must be conducted on all distributed generation sources subject to this Subpart by December 31, 2007. Subsequent emissions testing must be conducted after every 15,000 hours of operation or five years from the due date of the previous emissions test, whichever is later.

(1) 'Exceptions'.

(i) An emissions test must be conducted on all demand response sources subject to this Subpart by December 31, 2008. Subsequent emissions testing must be conducted after every 15,000 hours of operation or five years from the due date of the previous emissions test, whichever is later.

(ii) An emissions test must be conducted on all distributed generation sources firing biogas subject to this Subpart by December 31, 2009. Subsequent emissions testing must be conducted after every 15,000 hours of operation or five years from the due date of the previous emissions test, whichever is later.

(iii) A distributed generation source firing diesel fuel with a sulfur content of 15 ppm or less which is equipped with a particulate control device designed to remove 85 percent or more of the PM from the exhaust stream is not subject to the PM emissions testing requirements set forth in this Subpart. A certification from a person licensed to practice professional engineering in New York State that the pollution control device meets the above requirement must be submitted to the department by December 31, 2007 for all distributed generation sources subject to this Subpart except demand response sources for which the certification must be submitted by December 31, 2008.

(b) 'Emission test requirements'.

(1) The owner or operator of a distributed generation source must notify the department in writing at least 60 calendar days prior to the scheduled date of an emissions test. The commissioner may require that a written protocol be submitted for review and approval. In such case, the emissions test may not commence until 15 calendar days following the commissioner's approval of the written protocol.

(2) 'Emission test methods'. The following EPA test methods must be used:

(i) NO<sub>x</sub>: Method 7E pursuant to 40 CFR 60, Appendix A;

(ii) PM: Method 5 pursuant to 40 CFR 60, Appendix A.

(3) 'Additional protocols'.

(i) Each emissions test must be conducted at the nominal full load of the source and for each pollutant for which there is an applicable emission limit.

(ii) The span of the monitoring system must be selected such that the pollutant gas concentration equivalent to the emission limit is not less than 30 percent of the span.

(4) 'Emission test reports'. The owner or operator of a distributed generation source must submit three copies of the emission test reports to the department within 60 calendar days after the completion of the tests.

Section 222-1.8 Recordkeeping.

(a) The commissioner or a designee may enter a facility where a source subject to this Subpart is located and inspect a distributed generation source subject to the requirements of this Subpart, and any records, papers, log books, and operational data maintained pursuant to this Subpart. Upon request, all records, papers, log books and operational data maintained pursuant to this Subpart must be made available to the commissioner or a designee.

(b) The results from emission tests must be maintained at a facility for a period of five years from the date of the emission test.

(c) Records of tune-ups must be maintained in a bound log book or other format approved by the commissioner and must be kept at the facility for at least five years after the date of the last entry. The following information must be contained in the log book for each tune-up:

- (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;
- (3) descriptions of the tasks performed during the tune-up; and
- (4) any other information that the commissioner may require as a condition of approval of any permit.

(d) Operational data must be maintained in a format acceptable to the commissioner at the facility for a period of five years from the date the data were recorded, for each distributed generation source subject to this Subpart. The following data must be recorded for each month:

- (1) hours of operation; and
- (2) type and quantity of fuel(s) used or purchased.

## Subpart 222-2

### Distributed Generation Sources Commencing Operation on or After January 1, 2009

#### Section 222-2.1 Applicability.

(a) The provisions of this Subpart apply to owners and operators of distributed generation sources with a maximum mechanical output rating greater than or equal to 67 horsepower that commence operation on or after January 1, 2009 and which are not subject to one of the following regulations:

- (1) 40 CFR 60, Subpart IIII
- (2) 40 CFR 60, Subpart KKKK

#### Section 222-2.2 Operational restrictions for demand response sources.

(a) Except as provided in paragraph (1) of this section, a demand response source subject to this Subpart is prohibited from operating in excess of 60 hours of annual operation in response to calls to reduce demand on the electric grid.

(1) Operation during an electric grid reliability emergency. At the discretion of the commissioner, operation in excess of the 60 hour annual limit may be excused if operation of the demand response source occurred during an electric grid reliability emergency certified by DPS. In such circumstances, the following reporting requirements must be adhered to:

- (i) The commissioner must be notified by DPS of an electric grid

reliability emergency within 24 hours of the start of the event.

(ii) Within 30 days of the end of an electric grid reliability emergency, the owner or operator of a demand response source must submit documentation that the source operated during the event.

(iii) Within 90 days of the end of the electric grid reliability emergency, the commissioner must be provided with certification from DPS of the location(s) affected, the start and end times of the event, the specific demand response sources that operated and the number of hours each demand response source was operated.

#### Section 222-2.3 Prohibitions.

(a) Maintenance and testing of emergency power generating stationary internal combustion engines and demand response sources may not be conducted between the hours of 1:00 pm and 8:00 pm during the period of May 1 through October 15 of each year.

(b) Any source subject to this Subpart is prohibited from operating as a demand response source without first obtaining a registration certificate or permit issued in accordance with Part 201 of this Title.

(c) An owner or operator of any distributed generation source subject to this Subpart is prohibited from operating the source such as to cause or allow emissions in excess of emission limits set forth in this Subpart.

#### Section 222-2.4 Control requirements.

(a) 'NO<sub>x</sub> and carbon monoxide (CO) emission limits' (grams per brake horsepower-hour (g/bhp-h)).

| 'Source Type'   | Emission Limits Applicable to Sources that Commence Operation after: |      |                 |      |
|---|--|------|-----------------|------|
|   | January 1, 2009  |      | January 1, 2010 |      |
|   | 'NOx'  | 'CO' | 'NOx'           | 'CO' |
| Emergency power generating stationary internal combustion engines and demand response sources | 5.4  | 2.2  | 2.0             | 2.2  |
| Sources firing biogas   | 1.5  | 3.4  | 1.5             | 3.4  |
| All other sources subject to this Subpart   | 0.54   | 2.2  | 0.54            | 2.2  |

(b) 'Particulate matter (PM)'. All distributed generation sources subject to this Subpart firing diesel fuel must meet a PM emission limit of 0.10 pounds per million British thermal units; or the sulfur content of the diesel fuel burned by the source must be 15 parts per million or less and the distributed generation source must be equipped with a particulate control device designed to remove 85 percent or more of the PM from the exhaust stream.

(c) 'Tune-up'. Each distributed generation source must be tuned-up at least once every 12 months.

#### Section 222-2.5 Emissions testing.

(a) For all sources subject to this Subpart, an emissions test must be conducted within 120 days after the source commences operation to demonstrate that the source is in compliance with the emission limits set forth in section 222-2.4 of this Subpart. An owner or operator that installs two or more distributed generation sources of the same model number and model year may conduct emissions testing on one source and apply the

results of the testing on all sources of the same model number and model year.

(1) 'Exceptions'.

(i) A distributed generation source firing diesel fuel with a sulfur content of 15 parts per million or less which is equipped with a particulate control device designed to remove 85 percent or more of the PM from the exhaust stream is not subject to the PM emissions testing requirements set forth in this Subpart. A certification from a person licensed to practice professional engineering in New York State that the pollution control device meets these criteria must be submitted to the department within 120 days after the source commences.

(ii) A facility that operates a model of distributed generation source that has been certified under the California Air Resources Board's Distributed Generation Certification Program as set forth in California Code of Regulations, title 17, sections 94200 through 94214 (see Table 1, section 200.9 of this Title), or other program approved by the commissioner, is exempt from the emissions testing requirement of subdivision 222-2.5(a) of this Subpart. A copy of the certification must be submitted to the department within 120 days after the certified source commences operation.

(iii) The results from an emissions test performed by a manufacturer in accordance with the requirements set forth in subdivision 222-2.5(c) of this Subpart may be substituted for the emissions test required by subdivision (a) of this section provided the manufacturer's test is conducted on the same model and model year distributed generation source. The distributed

generation source tested by the manufacturer must be equipped with an identical pollution control device, if applicable, as the source subject to this Subpart. A copy of the emission test report prepared by the manufacturer must be submitted to the department within 120 days after the source commences operation.

(b) 'Additional testing'. Emissions tests must be conducted after every 15,000 hours of operation or every five years, whichever is later. The first 15,000 hour or five-year period begins 120 days after the source commences operation.

(1) 'Exception'. Emergency power generating stationary internal combustion engines subject to this Subpart are exempt from the additional testing requirement set forth in this subdivision.

(c) 'Emission test requirements'.

(1) The owner or operator of a distributed generation source must notify the department in writing at least 60 calendar days prior to the scheduled date of an emissions test. The commissioner may require that a written protocol be submitted for review and approval. In such case, the emissions test may not commence until 15 calendar days following the commissioner's approval of the written protocol.

(2) 'Emission test methods'. The following EPA test methods must be used:

- (i) NO<sub>x</sub>: Method 7E pursuant to 40 CFR 60, Appendix A;
- (ii) CO: Method 10 pursuant to 40 CFR 60, Appendix A;

(iii) PM: Method 5 pursuant to 40 CFR 60, Appendix A.

(3) 'Additional protocols'.

(i) Each emissions test must be conducted at the nominal full load of the source for each pollutant for which there is an applicable emission limit.

(ii) The span of the monitoring system must be selected such that the pollutant gas concentration equivalent to the emission limit is not less than 30 percent of the span.

(4) 'Emission test reports'. The owner or operator of a distributed generation source must submit three copies of the emission test reports to the department within 60 calendar days of completion of the tests.

#### Section 222-2.6 Recordkeeping.

(a) The commissioner or a designee may enter a facility where a source subject to this Subpart is located and inspect a distributed generation source subject to the requirements of this Subpart, and any records, papers, log books, and operational data maintained pursuant to this Subpart. Upon request, all records, papers, log books and operational data maintained pursuant to this Subpart must be made available to the commissioner or a designee.

(b) The results from any emission tests must be maintained at a facility for a period of five years from the date of the emission test.

(c) Records of tune-ups must be maintained in a bound log book or other format approved by the

commissioner and must be kept at the facility for at least five years after the date of the last entry. The following information must be contained in the log book for each tune-up:

- (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;
- (3) descriptions of the tasks performed during the tune-up; and
- (4) any other information that the commissioner may require as a condition of approval of any permit.

(d) Operational data must be maintained in a format acceptable to the commissioner at the facility for a period of five years from the date the data were recorded, for each distributed generation source subject to an emission limit set forth in section 222-2.4 of this Subpart. The following data must be recorded for each month:

- (1) hours of operation;
- (2) type and quantity of fuel(s) used or purchased.