

Sec. 22a-174-22f. High daily NO_x emitting units at non-major sources of NO_x.

(a) **Definitions.** For the purposes of this section, the following definitions apply. Any term not defined shall be as defined in section 22a-174-1 of the Regulations of Connecticut State Agencies:

(1) “Affected unit” means a fossil fuel-fired:

(A) Stationary source that serves a generator with a nameplate capacity of 15 MW or more; or

(B) Boiler or indirect heat exchanger with a maximum heat input capacity of 250 MMBtu/hr or more.

(2) “Boiler serving an electric generating unit” or “boiler serving an EGU” means a steam generating unit used for generating electricity.

(3) “Combined cycle combustion turbine” means an internal combustion engine fueled by liquid or gaseous fuel, in which blades are driven by combustion gases to generate mechanical energy in the form of a rotating shaft that drives an electric generator which recovers heat from the turbine exhaust gases to generate steam that drives a steam turbine which drives an additional electric generator.

(4) “Combined heat and power system” means a steam-generating unit that simultaneously produces both electric power and useful thermal energy from the same primary energy source.

(5) “Combustion turbine” means an internal combustion engine fueled by liquid or gaseous fuel, in which blades are driven by combustion gases to generate mechanical energy in the form of a rotating shaft that drives an electric generator or other industrial equipment.

(6) “Electric generating unit” or “EGU” means a combustion or steam generating source used for generating electricity that delivers all or part of its power to the electric power distribution grid for commercial sale.

(7) “Electricity supplier” means “electric supplier” as defined in section 16-1(a)(24) of the Connecticut General Statutes, and “municipal electric utility” as defined in section 7-233b(8) of the Connecticut General Statutes.

(8) “Emergency” has the same meaning as provided in section 22a-174-22e of the Regulations of Connecticut State Agencies.

(9) “Emergency engine” has the same meaning as provided in section 22a-174-22e of the Regulations of Connecticut State Agencies

(10) “Gas” or “gaseous fuel” means natural gas, propane, or any other fuel that is in the gaseous state under standard conditions, except for landfill gas or digester gas.

(11) “Industrial/commercial/institutional boiler” or “ICI boiler” means an indirect heat exchanger that heats water to supply heat to an industrial, commercial, or institutional operation.

(12) “Other oil” means a fuel that is liquid at standard conditions and is not residual oil.

(13) “Ozone forecast” means the eight-hour ozone forecast issued as an air quality index one or more days in advance by the commissioner and posted on the Department’s website or otherwise provided by the Department for the regulated community.

(14) “Reciprocating engine” means an internal combustion engine in which a rotating crankshaft is driven by reciprocating motion of piston or pistons.

(15) “RCSA” means Regulations of Connecticut State Agencies.

(16) “Simple cycle combustion turbine” means a combustion turbine that does not recover heat from its exhaust gases.

(17) “Solid fuel” means coal, other solid fossil fuel, wood or other solid biomass.

(18) “Tune-up” means adjustments made to an emission unit to improve efficiency with respect to combustion operations.

(b) Applicability.

(1) This section applies to the owner or operator of a boiler serving an EGU or an ICI boiler located at a facility that is not a major stationary source of NO_x and that meets any one of the following criteria:

(A) The boiler is gas-fired and has a maximum rated capacity:

(i) Greater than 76 MMBtu/hr and is located in a serious non-attainment area for ozone,
or

(ii) Greater than 38 MMBtu/hr and is located in a severe non-attainment area for ozone;

(B) The boiler is residual oil-fired and has a maximum rated capacity:

(i) Greater than 30 MMBtu/hr and is located in a serious non-attainment area for ozone,
or

(ii) Greater than 15 MMBtu/hr and is located in a severe non-attainment area for ozone;

(C) The boiler is other oil-fired and has a maximum rated capacity:

(i) Greater than 72 MMBtu/hr and is located in a serious non-attainment area for ozone,
or

(ii) Greater than 36 MMBtu/hr and is located in a severe non-attainment area for ozone;

or

(D) The boiler is solid fuel-fired and has a maximum rated capacity:

(i) Greater than 6 MMBtu/hr and is located in a serious non-attainment area for ozone,
or

(ii) Greater than 3 MMBtu/hr and is located in a severe non-attainment area for ozone.

(2) This section applies to the owner or operator of a reciprocating engine located at a facility that is not a major stationary source of NO_x and that meets any one of the following criteria:

(A) The engine is gas-fired and has a maximum rated capacity:

(i) Greater than 4 MMBtu/hr and is located in a serious non-attainment area for ozone,
or

(ii) Greater than 2 MMBtu/hr and is located in a severe non-attainment area for ozone;

or

(B) The engine is other oil-fired and has a maximum rated capacity:

(i) Greater than 2 MMBtu/hr and is located in a serious non-attainment area for ozone,
or

(ii) Greater than 1 MMBtu/hr and is located in a severe non-attainment area for ozone.

(3) This section applies to the owner or operator of a simple cycle combustion turbine located at a facility that is not a major stationary source of NO_x and that meets any one of the following criteria:

(A) The turbine is gas-fired and has a maximum rated capacity:

(i) Greater than 32 MMBtu/hr and is located in a serious non-attainment area for ozone,
or

- (ii) Greater than 16 MMBtu/hr and is located in a severe non-attainment area for ozone;
- or
- (B) The turbine is other oil-fired and has a maximum rated capacity:
 - (i) Greater than 12 MMBtu/hr and is located in a serious non-attainment area for ozone,
 - or
 - (ii) Greater than 6 MMBtu/hr and is located in a severe non-attainment area for ozone.
- (4) This section applies to the owner or operator of a combined cycle combustion turbine located at a facility that is not a major stationary source of NO_x and that meets any one of the following criteria:
 - (A) The turbine is gas-fired and has a maximum rated capacity:
 - (i) Greater than 32 MMBtu/hr and is located in a serious non-attainment area for ozone,
 - or
 - (ii) Greater than 16 MMBtu/hr and is located in a severe non-attainment area for ozone;
 - (B) The turbine is other oil-fired and has a maximum rated capacity:
 - (i) Greater than 12 MMBtu/hr and is located in a serious non-attainment area for ozone,
 - or
 - (ii) Greater than 6 MMBtu/hr and is located in a severe non-attainment area for ozone;
 - and
 - (C) When determining the maximum rated capacity of a combined cycle combustion turbine, the owner or operator shall include the maximum capacity of all supplemental burners.
- (5) This section applies to the owner or operator of a fuel-burning emission unit located at a facility that is not a major stationary source of NO_x and that combusts fuel for heating materials including air if any one of the following criteria are met:
 - (A) The emission unit is gas-fired and has a maximum rated capacity:
 - (i) Greater than 76 MMBtu/hr and is located in a serious non-attainment area for ozone,
 - or
 - (ii) Greater than 38 MMBtu/hr and is located in a severe non-attainment area for ozone;
 - or
 - (B) The emission unit is other oil-fired and has a maximum rated capacity:
 - (i) Greater than 72 MMBtu/hr and is located in a serious non-attainment area for ozone,
 - or
 - (ii) Greater than 36 MMBtu/hr and is located in a severe non-attainment area for ozone.
- (6) This section applies to any affected unit located at a source that is not a major stationary source of NO_x.
- (7) If a dual-fuel unit is subject to this section for one fuel based on subdivisions (1) to (5), inclusive, of this subsection, the emission unit is subject to this section for all operations.
- (c) **Exemptions.**
 - (1) The following emission units are exempt from this section:
 - (A) An emission unit that is located at a major source of NO_x;
 - (B) An emission unit that is a type of incinerator for which an emissions guideline has been issued under Section 129 of the Act;
 - (C) An emission unit used to test and provide emergency power or alternative power for safety-related structures, systems, and components or other Nuclear Regulatory Commission

mandated systems at an electric generating facility licensed under 10 CFR 50;

(D) An emission unit that is located at a hospital or health care facility and that is used to meet standards of The Joint Commission or the National Fire Protection Association for emergency electrical power systems;

(E) A reciprocating engine operated by an EAS Participant, as defined in 47 CFR 11.2, to meet the equipment operational readiness requirements of 47 CFR 11.35; or

(F) A non-road engine, as defined in 40 CFR 1068.30 or 40 CFR 89.2

(2) The exemptions provided in subparagraphs (C), (D) and (E) of subdivision (1) of this subsection are not available to the owner or operator of either:

(A) A reciprocating engine or combustion turbine for which the owner or operator is party to an agreement to sell electrical power from such reciprocating engine or simple cycle combustion turbine to an electricity supplier; or

(B) A reciprocating engine or combustion turbine for which the owner or operator receives any reduction in the cost of electrical power for agreeing to produce power during periods of reduced voltage or reduced power availability.

(3) The owner or operator of an emission unit that is operating in accordance with RCSA section 22a-174-22e pursuant to subsection (e)(2) of this section shall no longer be subject to the requirements of subsections (f), (g) and (h) of this section.

(d) Emergency engines.

(1) The owner or operator of an emergency engine subject to this section shall maintain records as required by subsection (g) of this section and comply with subdivisions (2) and (3) of this subsection. No other provisions of this section apply to the owner or operator of an emergency engine.

(2) The owner or operator of an emergency engine shall not operate the emergency engine for routine, scheduled testing or maintenance on any day for which the commissioner has forecast that ozone levels will be “moderate to unhealthy for sensitive groups” or greater. If, subsequent to the initial forecast of “moderate to unhealthy for sensitive groups” or greater, the forecast is revised to “moderate” or lower, the owner or operator is no longer prohibited from operating the engine for routine, scheduled testing or maintenance for the remainder of that day. An owner or operator of an emergency engine may rely on an ozone forecast of “moderate” or lower obtained after 3 p.m. on the preceding day. Subsequent changes to the ozone forecast after 3 p.m. that forecast ozone levels of “moderate to unhealthy for sensitive groups” or greater shall not obligate the owner or operator to refrain from operation of the emergency engine at the facility on the following day. The commissioner may exempt, by permit or order, the owner or operator of an emergency engine from this subdivision if such emergency engine is unattended and the testing is automated and cannot be modified from a remote location.

(3) If an owner or operator operates a model year 2013 or later emergency engine in compliance with the engine NOx emissions standards of 40 CFR 1039, subpart B, such engine is exempt from the restriction of subdivision (2) of this subsection.

(e) Emission units that are not emergency engines.

(1) The owner or operator of an emission unit subject to this section that is not an emergency engine or an affected unit shall comply with the record keeping requirements of subsection (g) of this section; the reporting requirements of subsection (h) of this section;

and, if the emission unit is an ICI boiler or a reciprocating engine, the tune-up requirements of subsection (f) of this section, except as follows:

(A) If the owner or operator of an emission unit subject to this section that is not an emergency engine or is not an affected unit requests an enforceable emission limitation to a level below the daily NO_x emission thresholds of subdivision (2) of this subsection and the commissioner grants such a request, the owner or operator is no longer required to operate the emission unit in compliance with subsections (f), (g) and (h) of this section. Such enforceable limitation on daily NO_x emissions shall be issued in an order or modification to an existing permit; and

(B) If an emission unit subject to a limitation as provided in subparagraph (A) of this subdivision subsequently exceeds the applicable NO_x emission threshold of subdivision (2) of this subsection, such an emission unit shall thereafter operate such an emission unit in compliance with RCSA section 22a-174-22e.

(2) On and after May 1, 2018, if an emission unit subject to this section that is not an emergency engine or an affected unit emits NO_x at levels equal to or greater than the applicable level identified in subparagraph (A) or (B) of this subdivision on any day from May 1 to September 30, inclusive, the owner or operator shall thereafter operate the emission unit in compliance with section 22a-174-22e of the Regulations of Connecticut State Agencies:

(A) One hundred thirty-seven (137) pounds of NO_x, if such emission unit is located in a severe nonattainment area for ozone; or

(B) Two hundred seventy-four (274) pounds of NO_x, if such emission unit is located in a serious nonattainment area for ozone.

(3) The owner or operator of an emission unit that is not an emergency engine or an affected unit that exceeds a NO_x emission threshold in subsection (e)(2) of this section shall submit the notification required by subsection (h) of this section within 60 days of the day on which the threshold is first exceeded and shall operate the emission unit in compliance with RCSA section 22a-174-22e no later than 270 days after the day on which the threshold is first exceeded.

(4) The owner or operator of an affected unit shall operate the unit in compliance with RCSA section 22a-174-22e. An affected unit that commences initial operation prior to the effective date of this section shall operate in compliance with RCSA section 22a-174-22e as of the effective date of this section. An affected unit that commences initial operation after the effective date of this section shall operate in compliance with RCSA section 22a-174-22e as of the date of initial operation.

(f) Tune-up requirements.

(1) Except as provided in subdivision (2) of this subsection, the owner or operator of an ICI boiler or a reciprocating engine subject to this section that is not an emergency engine shall conduct an inspection and tune-up of the emission unit a minimum of once per calendar year beginning with year 2018. Each subsequent annual tune-up shall be performed no earlier than 180 days after the previous tune-up conducted under this section. The inspection and tune-up of the emission unit shall be conducted according to the manufacturer's recommended procedures, or, if the manufacturer's recommendations are not available, according to best available practices.

(2) The owner or operator of an emission unit that is subject to 40 CFR 60 or 40 CFR 63 and required to conduct a periodic tune-up by the applicable requirements of 40 CFR 60 or 40 CFR 63 may conduct tune-ups according to the schedule and procedures of the applicable requirements of 40 CFR 60 or 40 CFR 63. If the period between tune-ups in the applicable requirements of 40 CFR 60 or 40 CFR 63 is greater than 60 months, a tune-up shall be conducted at least once every 60 months.

(g) Record keeping.

(1) The owner or operator of an emission unit subject to this section shall retain all records and reports produced pursuant to this section for five years. Such records and reports shall be available for inspection at reasonable hours by the commissioner or the Administrator. Such records and reports shall be retained at the premises where the emission unit is located, unless the commissioner approves in writing the use of another location in Connecticut.

(2) The owner or operator of an emission unit that is not an emergency engine shall make and keep the following records on and after May 1, 2018:

(A) During the period from May 1 to September 30, inclusive, records sufficient to determine the NO_x emissions (lbs) per day;

(B) A calculation of NO_x emissions on each day of operation, performed no later than the last day of each month for every day of operation in the preceding month;

(C) The method used to calculate daily NO_x emissions and the information used to determine the NO_x emissions rate, chosen from the following options:

(i) If data are available from continuous emissions monitoring equipment installed, operated, and certified in accordance with a permit or order, or regulation issued or administered by the commissioner or the Administrator, or a commissioner approved voluntarily installed continuous emissions monitor, such data shall be used to determine the rate of emissions,

(ii) If the data in subparagraph (C)(i) of this subdivision are not available and stack testing data are available, such stack testing data shall be used to determine the rate of emissions, provided such testing was conducted in accordance with protocols approved in writing by the commissioner in advance of testing,

(iii) If the data in subparagraph (C)(i) or (C)(ii) of this subdivision are not available, the rate of emissions shall be calculated using data supplied by the manufacturer of the emission unit, which data were derived from EPA-approved emissions testing of such unit performed by or for the manufacturer,

(iv) If the data in subparagraph (C)(i), (C)(ii) or (C)(iii) of this subdivision are not available, the rate of emissions shall be calculated using the data or emissions estimation techniques that result in the highest rate of emissions from the following EPA publications:

1. Compilation of Air Pollutant Emission Factors (AP-42),
2. AIRS Facility Subsystem Emission Factors, or
3. The Emission Inventory Improvement Program (EIIP), or

(v) If the data in subparagraph (C)(i), (C)(ii), (C)(iii) or (C)(iv) of this subdivision are not available, the emission rate shall be calculated using another source of emissions data that is approved by the commissioner;

(D) The date and work performed for repairs, replacement of parts and other

maintenance;

(E) For each emission unit for each tune-up conducted pursuant to subsection (f) of this section, the date on which the emission unit is tuned-up; the name, title and affiliation of the person performing the tune-up, and a description of work performed, and

(F) Copies of all documents submitted to the commissioner pursuant to this section.

(3) The owner or operator of an emergency engine shall make and keep the following records:

(A) For an emergency engine not subject to 40 CFR 63 Subpart ZZZZ, daily records of the operating hours of such engine, identifying the operating hours of emergency and non-emergency use and the reason for each period of emergency or non-emergency operation. For an emergency engine subject to 40 CFR 63 Subpart ZZZZ, records required by 40 CFR 63.6655;

(B) The date and work performed for repairs, replacement of parts and other maintenance; and

(C) Copies of all documents submitted to the commissioner pursuant to this section.

(h) **Reporting.**

If an emission unit exceeds a daily NO_x emissions threshold pursuant to subsection (e) of this section, the owner or operator shall submit a notification to the Compliance Analysis and Coordination Unit, Bureau of Air Management at the Department. Such a notification shall be submitted no later than 60 days after the date on which the daily NO_x emissions thresholds were exceeded and shall include the following information:

(1) Legal name(s), address(es) and telephone number(s) of the emission unit owner and operator. If the owner or operator is a corporation or a limited partnership transacting business in Connecticut, provide the exact name as registered with the Secretary of the State;

(2) Location address of the premises where the emission unit is located;

(3) Make and model of the emission unit;

(4) Each fuel type combusted in the emission unit;

(5) NO_x emissions data for the subject emission unit, including emission rates or emissions factors, if available, or the manufacturer's estimates of emissions;

(6) If the emission unit is operated pursuant to a new source review permit or a registration, the type of license and license number;

(7) The longitude and latitude of the emission unit, in decimal degrees format;

(8) The location address in Connecticut where records required to demonstrate compliance with this section are maintained;

(9) The date on which NO_x emissions exceeded the threshold;

(10) A statement that the emission unit will be operated pursuant to the applicable requirements of section 22a-174-22e of the Regulations of Connecticut State Agencies; and

(11) A certification, as follows, signed by a person authorized by the owner or operator to execute and deliver such a submission on behalf of the owner or operator:

"I have personally examined and am familiar with the information submitted in this document and all attachments thereto, and I certify that based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information, the submitted information is true, accurate and complete to the best of my knowledge and belief.

Regulations of Connecticut State Agencies

I understand that any false statement made in the submitted information may be punishable as a criminal offense under section 22a-175 of the Connecticut General Statutes, under section 53a-157b of the Connecticut General Statutes, and in accordance with any other applicable statute.”

(Effective December 22, 2016)