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(a) Definitions.

“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.

“Boiler serving an electric generating unit” or “boiler serving an EGU” means a steam generating unit used for generating electricity including a unit serving a cogeneration facility. ~~An auxiliary boiler is considered a “boiler serving an electric generating unit.”~~

“Cogeneration” means the use for the generation of electricity of exhaust steam, waste steam, heat or resultant energy from an industrial, commercial or manufacturing plant or process, or the use of exhaust steam, waste steam or heat from a thermal power plant for an industrial, commercial or manufacturing plant or process.

“Combined cycle combustion turbine” means a combustion turbine that recovers heat from the turbine exhaust gases to heat water or generate steam **including a unit serving a cogeneration facility.**

“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, **including a unit serving a cogeneration facility.**

“Daily block average” means the arithmetic mean of all ~~valid~~ **hourly** emission concentrations **or rates** recorded when a unit is operating measured over the 24-hour period from 12 a.m. (midnight) to 12 a.m. (midnight).

“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.

“Electricity supplier” means “electric supplier” as defined in section 16-1(a)(30) of the Connecticut General Statutes, and “municipal electric utility” as defined in section 7-233b(8) of the Connecticut General Statutes.

“Emergency” means an unforeseeable condition that is beyond the control of the owner or operator of an emergency engine that:

- (A) Results in an interruption of electrical power from the electricity supplier to the premises;

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- (B) Results in a deviation of voltage from the electricity supplier to the premises of three percent (3%) above or five percent (5%) below standard voltage in accordance with section 16-11-114 of the Regulations of Connecticut State Agencies;
- (C) Requires an interruption of electrical power from the electricity supplier to the premises enabling the owner or operator to perform emergency repairs;
- (D) Requires operation of the emergency engine to minimize damage from fire, flood, or any other catastrophic event, natural or man-made;
- (E) Requires operation of the emergency engine under an agreement with the New England region system operator during the period of time the New England region system operator is implementing voltage reductions or involuntary load interruptions within the Connecticut load zone in accordance with Action 6 of the ISO New England Operating Procedure No. 4 – Action During a Capacity Deficiency, effective August 12, 2014, or subsequent revisions thereto; or
- (F) Requires an interruption of power from the electricity supplier to perform construction, facility maintenance or repair for a period of time not to exceed 72 hours per calendar year.

“Emergency engine” means a stationary reciprocating engine or a gas turbine engine that is used as a means of providing mechanical or electrical power only during periods of testing and scheduled maintenance or during an emergency.

“Existing emission unit” means a source for which construction commenced prior to the effective date of this section.

“Industrial/commercial/institutional boiler” or “ICI boiler” means an indirect heat exchanger that ~~generates steam heats water~~ to supply heat to an industrial, commercial, or institutional operation. This term does not include boilers that serve electric generating units.

“Natural gas” means a naturally occurring fluid mixture of hydrocarbons (e.g., methane, ethane, or propane) produced in geological formations beneath the Earth’s surface that maintains a gaseous state at standard atmospheric temperature and pressure under ordinary conditions. “Natural gas” contains 20.0 grains or less of total sulfur per 100 standard cubic feet, and is composed of either at least 70 percent methane by volume or has a gross calorific value between 950 and 1,100 Btu per standard cubic foot. “Natural gas” does not include the following gaseous fuels: landfill gas, digester gas, refinery gas, sour gas, blast furnace gas, coal-derived gas, producer gas, coke oven gas, or any gaseous fuel produced in a process which might result in highly variable sulfur content or heating value.

“Non-ozone season” means the period beginning October 1 of a calendar year and ending on April 30 of the following calendar year, inclusive.

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“Out-of-control period” means any period beginning with the quadrant corresponding to the completion of a daily calibration error, linearity check or quality assurance audit that indicates that the instrument is not measuring and recording within the applicable performance specifications and ending with the quadrant corresponding to the completion of an additional calibration error, linearity check, or quality assurance audit following corrective action that demonstrates that the instrument is measuring and recording within the applicable performance specifications.

“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.

“Ozone season” means the period beginning May 1 of a calendar year and ending on September 30 of the same year, inclusive.

“Phase 1” means the first implementation phase of this section, beginning June 1, 2018 and ending May 31, 2022.

“Phase 2” means the second implementation phase of the section, beginning June 1, 2022 and continuing thereafter.

~~“Process heater” means an enclosed device using controlled flame, and the unit’s primary purpose is to transfer heat indirectly to a process material (liquid, gas, or solid) or to a heat transfer material (e.g., glycol or a mixture of glycol and water) for use in a process unit, instead of generating steam. A “process heater” is a device in which the combustion gases do not come into direct contact with process materials. “Process heaters” do not include units used for comfort heat or space heat, food preparation for on-site consumption, autoclaves or waste heat process heaters.~~

“Reciprocating engine” means an internal combustion engine in which a rotating crankshaft is driven by reciprocating motion of piston or pistons, **including a unit serving a cogeneration facility.**

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

~~“Startup” means:~~

- ~~(A) — Either the first ever firing of fuel in an ICI boiler, boiler serving EGU or process heater for the purpose of producing electricity or supplying steam or heat for heating, or for any other purpose, or the firing of fuel in an ICI boiler or boiler serving EGU after a shutdown event for any purpose. “Startup” ends when any of the steam or heat from the ICI boiler, boiler serving EGU or process heater is used to generate electricity for sale over the grid or supplied for heating, or for any~~

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~~other purpose (including on-site use). Any fraction of an hour in which “startup” occurs constitutes a full hour of “startup;” or~~

- ~~(B) The period in which operation of a simple cycle turbine, combined cycle turbine, ICI boiler, boiler serving EGU, or process heater is initiated for any purpose. “Startup” begins with either the first ever firing of any fuel in a simple cycle turbine, combined cycle turbine, ICI boiler, boiler serving EGU or process heater for the purpose of producing electricity or useful thermal energy such as heat or steam for industrial, commercial, heating, or cooling purposes or for any other purpose after a shutdown event. “Startup” ends four hours after the emission unit generates electricity that is sold or used for any other purpose including on-site use, or four hours after the simple cycle turbine, combined cycle turbine, ICI boiler, boiler serving EGU, or process heater makes useful thermal energy such as heat or steam for industrial, commercial heating, or cooling purposes, whichever is earlier. Any fraction of an hour in which “startup” occurs constitutes a full hour of “startup.”~~

~~“Shutdown” means the period in which cessation of operation of a simple cycle turbine, combined cycle turbine, ICI boiler, boiler serving EGU, or process heater is initiated for any purpose. “Shutdown” begins when the simple cycle turbine, combined cycle turbine, ICI boiler, boiler serving EGU, or process heater no longer generates electricity or makes useful thermal energy such as heat or steam for industrial, commercial, heating, or cooling purposes or when no coal, liquid oil, syngas, or solid oil derived fuel is being fired in the simple cycle turbine, combined cycle turbine, ICI boiler, boiler serving EGU, or process heater, whichever is earlier. “Shutdown” ends when the simple cycle turbine, combined cycle turbine, ICI boiler, boiler serving EGU, or process heater no longer generates electricity or makes useful thermal energy such as steam or heat for industrial, commercial, heating, or cooling purposes, and no fuel is being fired in the simple cycle turbine, combined cycle turbine, ICI boiler, boiler serving EGU, or process heater. Any fraction of an hour in which shutdown occurs constitutes a full hour of shutdown.~~

“Temporary unit” means any gaseous or liquid fuel fired unit that is designed to, and is capable of, being carried or moved from one location to another by means of, for example, wheels, skids, carrying handles, dollies, trailers or platforms. A unit is not temporary if any one of the following conditions exists:

- (A) The unit is attached to a foundation;
- (B) The unit or a replacement remains at a location within the facility and performs the same or similar function for more than 12 consecutive months. A temporary unit that replaces a temporary unit at a location and performs the same or similar function will be included in calculating the consecutive time period;

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- (C) The unit is located at a seasonal facility and operates during the full annual operating period of the seasonal facility, remains at the facility for at least two years and operates at that facility for at least three months of the year; or
- (D) The unit is moved from one location to another within the facility but continues to perform the same or similar function and serve the same electricity, steam or hot water system in an attempt to circumvent the residence time specification of this definition.

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

“Unit designed to burn gas 1 subcategory” means “unit designed to burn gas 1 subcategory” as defined in 40 CFR 63.7575.

~~“Useful thermal energy” means energy (i.e., steam, hot water, or process heat) that meets the minimum operating temperature or pressure required by any energy use system that uses energy provided by the affected boiler or process heater.~~

(b) Applicability. This section applies to the owner or operator of the listed emissions units, including temporary units, located at a Title V source that is a major stationary source for NOx:

- (1) A boiler serving an electric generating unit;
- (2) A simple cycle combustion turbine with a maximum rated capacity of five MMBtu/hr or more;
- (3) A combined cycle combustion turbine with a maximum rated capacity of five MMBtu/hr or more;
- (4) An ICI boiler ~~with a maximum rated capacity of five MMBtu/hr or more;~~
- (5) A reciprocating engine with a maximum rated capacity of three MMBtu/hr or more;
- (6) Equipment that combusts fuel for heating materials and that has a maximum rated capacity of five MMBtu/hr or more; or
- (7) Any other stationary fuel-burning equipment with a maximum rated capacity of five MMBtu/hr or more.

(c) Exemptions and exceptions.

- (1) The requirements of this section shall not apply to a mobile source.

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(2) The requirements of this section shall not apply to an incineration source subject to an emissions guideline issued under Section 129 of the Act.

(3) ~~Subsections (d)(6), (d)(13), (l), (m) and (i) of this section~~ shall not apply to the following reciprocating engines:

~~(A) An emergency engine;~~

(A) Used to test or 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; or

(B) Located at a hospital or other health care facility and used to meet standards of The Joint Commission or the National Fire Protection Association for emergency electrical power systems.

~~(D) To provide electricity at a facility when there is an interruption of power from the electricity supplier during construction, facility maintenance or repair.~~

(4) This section shall not apply to an internal combustion 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.

(5) Emergency engines are exempt from the following requirements of this section:

(A) The emissions limitations of subsection (d)(6);

(B) The testing requirements of subsection (l);

(C) The monitoring requirements of subsection (m);

(D) The tune-up requirements of subsection (i); and

(E) If the emergency engine complies with the Tier 4 emissions standards of 40 CFR 1039, Subpart B for model year 2013 or later, such engine is exempt from the restriction of subsection (d)(13) of this section in addition to the exemptions provided in subparagraphs (A) through (D) of this subdivision.

(6) ~~Subsections (d), (l), (m), and (i) of this section~~ shall not apply to the owner or operator of a test stand or test cell, for emissions from the use of such test stand or test cell. ~~Does this cover the support equipment for test cells? If so, expand category list. Or, we could include test cell support equipment in subdivision (7) of subsection (c) of this section.~~

(7) The requirements of ~~subdivisions (3), (4) and (6) of subsection (d) of this section,~~ ~~subsection (l) of this section,~~ ~~subsection (m) of this section and subsection (i) of this section~~ shall not apply to the emission units listed in subparagraphs (A) and ~~(B)~~ of this subdivision. The

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owner or operator of an emission unit operating pursuant to this subdivision shall not operate such emission unit on any day for which the Commissioner has forecast that ozone levels will be “moderate to unhealthy for sensitive groups,” “unhealthy for sensitive groups,” “unhealthy” or “very unhealthy.” Emission units that may operate pursuant to this exemption include the following:

- ~~(A)~~ ~~Oil fired turbines or fast response double furnace Naval boilers that generate power to create simulated high altitude atmospheres for testing of aircraft engines;~~
- ~~(B)~~(A) Fuel-burning equipment that is the subject of research and development; or
- ~~(C)~~(B) Compression-ignition reciprocating engines used exclusively for training personnel in the operation and maintenance of such engines aboard submarines.

Would schedule mod orders still be required?

(8) The requirements of subsections (d)(3), (l), (m) and (i) of this section shall not apply to a boiler that operates to supply steam used for the startup of a nuclear reactor or to supply heat or steam for the protection of facility systems when reactor-heated steam is not available at an electric generating facility licensed under 10 CFR 50.

(9) The requirements of this section shall not apply to non-road engines, as defined in 40 CFR 1068.30. Why not 40 CFR 89.2??

(d) Emissions limitations.

(1) The owner or operator of an emission unit shall not emit NO_x in excess of the applicable emission limitations specified in subdivisions (2) through (9) of this subsection. The owner or operator of an emission unit shall comply with the applicable emissions limitations of this subsection or the owner or operator shall take one of the following actions:

- (A) Implement an alternative compliance mechanism as provided in subsection (g) of this section;
- (B) Operate under a case-by-case RACT determination as provided in subsection (h) of this section; or
- (C) Cease operations as provided in subsection (f) of this section.

(2) Boilers serving EGUs.

- (A) For Phase 1, the following emission limits apply to the owner or operator of a boiler serving an EGU:

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	Natural gas-fired (lb/MMBtu)	Residual-oil-fired (lb/MMBtu)	Distillate-oil-fired (lb/MMBtu)	Coal-fired (lb/MMBtu)
Cyclone furnace	0.43	0.43	0.43	0.43
Other boiler	0.20	0.25	0.20	0.38

- (B) For Phase 1, the following ozone season and non-ozone season emission limits apply to the owner or operator of a boiler serving an EGU that is also an affected unit. The averaging period for the ozone season limit is May 1 through September 30, and the averaging period for the non-ozone season limit is October 1 through April 30:

	Natural gas-fired (lb/MMBtu)	Residual-oil-fired (lb/MMBtu)	Distillate-oil-fired (lb/MMBtu)	Coal-fired (lb/MMBtu)
Ozone season limit (5 month average)	0.10	0.20	0.10	0.15
Non-ozone season limit (7 month average)	0.15	0.15	0.15	0.15

- (C) For Phase 2, the following emission limits apply to the owner or operator of a boiler serving an EGU:

	Natural gas-fired (lb/MMBtu)	Residual-oil-fired (lb/MMBtu)	Distillate-oil-fired (lb/MMBtu)	Coal-fired (lb/MMBtu)
Boiler serving an EGU	0.10	0.20	0.10	0.12

- (D) For Phase 2, the following non-ozone season emission limits apply to the owner or operator of any boiler serving an EGU that is also an affected unit. The averaging period for the non-ozone season limit is October 1 through April 30:

	Natural gas-fired (lb/MMBtu)	Residual-oil-fired (lb/MMBtu)	Distillate-oil-fired (lb/MMBtu)	Coal-fired (lb/MMBtu)
Non-ozone season limit (7 month average)	0.15	0.15	0.15	0.15

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- (E) The owner or operator of a boiler serving an EGU shall operate installed air pollution control technology or combustion controls that reduce NO_x emissions at all times the unit is in operation and emitting NO_x.

(3) **ICI boilers.**

- (A) For Phase 1, the following emission limits apply to the owner or operator of an ICI boiler ~~with a design heat input capacity of 25 MMBtu/hr or greater:~~

	Natural gas-fired (lb/MMBtu)	Residual-oil-fired (lb/MMBtu)	Distillate-oil-fired (lb/MMBtu)
Boilers with maximum rated capacity greater than or equal to 5 MMBtu/hr	0.20	0.25	0.20
Boilers \geq 25 MMBtu/hr	0.20	0.25	0.20

- (B) For Phase 1, the following ozone season and non-ozone season emission limits apply to the owner or operator of an ICI boiler that is also an affected unit. The averaging period for the ozone season limit is May 1 through September 30, and the averaging period for the non-ozone season limit is October 1 through April 30:

	Natural gas-fired (lb/MMBtu)	Residual-oil-fired (lb/MMBtu)	Distillate-oil-fired (lb/MMBtu)
Ozone season limit (5 month average)	0.10	0.20	0.15
Non-ozone season limit (7 month average)	0.15	0.15	0.15

- (C) For Phase 2, the following emission limits apply to the owner or operator of an ICI boiler ~~with a design heat input capacity of 25 MMBtu/hr or greater:~~

	Natural gas-fired (lb/MMBtu)	Residual-oil-fired (lb/MMBtu)	Distillate-oil-fired (lb/MMBtu)
Boilers with maximum rated capacity greater than or equal to 5 and less than 25 MMBtu/hr	0.20	0.25	0.20
Boilers with maximum rated capacity greater than or equal to 25 MMBtu/hr and	0.05	0.20	0.10

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less than 100 MMBtu/hr			
Boilers with maximum rated capacity of 100 MMBtu/hr or greater	0.10	0.20	0.15

- (D) For Phase 2, the following non-ozone season emission limits apply to ICI boilers that are also affected units. The averaging period for the non-ozone season limit is October 1 through April 30:

	Natural gas-fired (lb/MMBtu)	Residual-oil-fired (lb/MMBtu)	Distillate-oil-fired (lb/MMBtu)
Non-ozone season limit (7 month average)	0.15	0.15	0.15

(4) **Simple cycle combustion turbines.**

- (A) For Phase 1, the following emission limits apply to the owner or operator of any simple cycle combustion turbine:

	Natural gas-fired	Distillate-oil-fired
Simple cycle combustion turbine with maximum rated capacity \geq 100 MMBtu/hr	55 ppmvd	75 ppmvd
Simple cycle combustion turbine with maximum rated capacity < 100 MMBtu/hr	0.90 lb/MMBtu [?]	0.90 lb/MMBtu [?]

- (B) For Phase 1, the following ozone season and non-ozone season emission limits apply to the owner or operator of any simple cycle combustion turbine that is also an affected unit. The averaging period for the ozone season limit is May 1 through September 30, and the averaging period for the non-ozone season limit is October 1 through April 30:

	Natural gas-fired	Distillate-oil fired
Ozone season limit (5 month average)	50 ppmvd or 0.18 lb/MMBtu	50 ppmvd or 0.19 lb/MMBtu
Non-ozone season limit (7 month average)	0.15 lb/MMBtu	0.15 lb/MMBtu

- (C) For Phase 2, the following emission limits apply to each owner or operator of a simple cycle combustion turbine:

	Natural gas-fired	Distillate-oil fired
Simple cycle combustion turbine	40 ppmvd	50 ppmvd

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- (D) For Phase 2, the following non-ozone season emission limits apply to the owner or operator of each simple cycle combustion turbine that is also an affected unit. The averaging period for the non-ozone season limit is all periods of operation from October 1 through April 30:

	Natural gas-fired	Distillate-oil fired
Non-ozone season limit (7 month average)	0.15 lb/MMBtu	0.15 lb/MMBtu

(5) **Combined cycle combustion turbines.**

- (A) For Phase 1, the following emission limits apply to the owner or operator of each combined cycle combustion turbine:

	Natural gas-fired	Distillate-oil-fired
Combined cycle combustion turbine	55 ppmvd	75 ppmvd

- (B) For Phase 1, the following ozone season and non-ozone season emission limits apply to the owner or operator of any combined cycle combustion turbine that is also an affected unit. The averaging period for the ozone season limit is May 1 through September 30, and the averaging period for the non-ozone season limit is October 1 through April 30:

	Natural gas-fired	Distillate-oil-fired
Ozone season limit (5 month average)	50 ppmvd	50 ppmvd
Non-ozone season limit (7 month average)	0.15 lb/MMBtu	0.15 lb/MMBtu

- (C) For Phase 2, the following emission limits apply to the owner or operator of any combined cycle combustion turbine:

	Natural gas-fired	Distillate-oil-fired
Combined cycle combustion turbine	25 ppmvd	42 ppmvd

- (D) For Phase 2, the following non-ozone season average emission limits apply to the owner or operator of any combined cycle combustion turbine that is also an affected unit. The averaging period for the non-ozone season limit is October 1 through April 30:

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	Natural gas-fired	Distillate-oil-fired
Non-ozone season limit (7 month average)	0.15 lb/MMBtu	0.15 lb/MMBtu

(6) **Reciprocating engines.**

(A) For Phase 1, the following emission limits apply to the owner or operator of any reciprocating engine:

	Natural gas-fired (g/bk hp-hr)	Distillate-oil-fired (g/bk hp-hr)	Landfill gas or digester gas, alone or fired with natural gas (g/bk hp-hr)
Reciprocating engine	2.5	8.0	No limit

(B) For Phase 2, the following emission limits apply to the owner or operator of each reciprocating engine:

	Natural gas-fired (g/bk hp-hr)	Distillate-oil-fired (g/bk hp-hr)	Landfill gas or digester gas, alone or fired with natural gas (g/bk hp-hr)
Rich burn reciprocating engine	1.5	1.5	2.0
Lean burn reciprocating engine	1.5	2.3	2.0

(7) For an emission unit ~~stationary source~~ that combusts fuel for heating materials including air, 180 ppmvd, corrected to 12% carbon dioxide.

~~(8) For any source subject to this section that is not otherwise subject to a NOx emissions limit in this subsection, NOx emissions shall not exceed 700 ppmvd.~~

(8) For a fuel-burning emissions unit of a type listed in subparagraphs (A) through (E) of this subdivision that is fired by a fuel other than a fuel identified with an emissions limit in subdivision (2) through subdivision (6) of this subsection, NOx emissions shall not exceed 0.3 lb/MMBtu for Phase 1 and 0.1 lb/MMBtu for Phase 2:

- (A) A boiler serving an EGU;
- (B) A simple cycle combustion turbine;

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- (C) A combined cycle combustion turbine;
 - (D) An ICI boiler; or
 - (E) A reciprocating engine.
- (9) The owner or operator of an emission unit that is capable of firing two or more fuels shall not cause or allow emissions of NO_x from such emission unit in excess of the following:
- (A) For fuel-burning equipment that simultaneously fires two or more different fuels, an emission limitation calculated as follows:
 - (i) Multiplying the heat input of each fuel combusted by the emission limitation of this subsection for the particular emission unit and fuel used,
 - (ii) Summing those products, and
 - (iii) Dividing the sum by the total heat input; or
 - (B) For fuel-burning equipment that is capable of interchangeably firing two or more fuels, the emission limitation of this subsection for the particular equipment and fuel used.
- (10) The following averaging times for emission limitations shall be applicable to the owner or operator of an emission unit that has or is required to have a CEM system for NO_x:
- (A) For a non-ozone season emissions limitation, the period from October 1 to April 30, inclusive, including all periods of operation, except as provided in subsection ~~(xxx)~~(m)(3) of this section;
 - (B) For an ozone season emissions limitation, the period from May 1 to September 30, inclusive, including all periods of operation, except as provided in subsection (m)(3) of this section;
 - (C) For any other emission limitation, a daily block average, measured from midnight to the following midnight, including all periods of operation, except as provided in subsection ~~(xxx)~~(m)(3) of this section;
- (11) An owner or operator of an emission unit that does not monitor NO_x emissions using a CEM system shall determine compliance with the emissions limitations of this subsection by performing NO_x emission testing as required by subsection (l) of this section.

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(12) The owner or operator of **an emission unit source** for which construction commences on or after the effective date of this section shall achieve compliance **with the applicable Phase 2 emissions limits** of this section upon the date of initial operation.

(13) 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. 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.

(14) For combined cycle combustion turbines associated with a duct burner, the emissions limitations in subdivision (5) of this subsection apply to the combination of the turbine and the duct burner when both are operating, and the turbine alone when not duct-firing.

(e) Not assigned.

(f) Permanent cessation of operation.

The owner or operator of an **existing source-emission unit** subject to this section who is unable to comply with an emissions limitation of subsection (d) of this section at the beginning of the Phase 1 or the Phase 2 period and who has not submitted a plan pursuant to subsection (g) or a demonstration pursuant to subsection (h) shall cease operation as of the first day of the Phase 1 or Phase 2 period, as applicable, or, at the discretion of the commissioner, enter into a legally enforceable cease operation agreement with the commissioner that includes a date no later than June 1, ~~2019~~ **2020** for a Phase 1 emissions limitation or June 1, 2023 for a Phase 2 emissions limitation on which operation shall cease.

(g) Compliance options.

(1) The owner or operator of any existing emission unit subject to this section that is unable to operate in accordance with an applicable emissions limitation of subsection (d) of this section and for which the owner or operator does not intend to submit a demonstration pursuant to subsection (h) of this section or cease operations as provided in subsection (f) of this section shall submit a **plan** to the commissioner to operate such emission unit in accordance with a compliance option identified in this subsection. Such a request shall be submitted to the commissioner for ~~review and approval~~ no later than September 1, 2017, for a Phase 1 emissions limitation, or September 1, **2020**, for a Phase 2 emissions limitation. **A compliance option provided in this subsection shall be established in and apply to the emissions unit or units in an order or permit issued by the commissioner to the owner or operator of such emission unit or units.**

(2) The owner or operator of a boiler serving an EGU may operate in compliance with one of the options listed in this subdivision in lieu of complying with the applicable emissions limitations of subsection (d) of this section. The options are available as an alternative to any

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Phase 1 or Phase 2 emissions limitation set out in subsection (d) of this section, unless otherwise specified:

- (A) Reduce the emission rate from the subject emission unit by at least 40% from a 2010 baseline emission rate. An owner or operator may request an alternative baseline year if the emissions in the alternative year are more representative of typical unit operations;
- (B) For Phase 1 only, use existing, banked, NO_x DERs to comply with the applicable emission limitation of subsection (d) in accordance with an order or permit issued by the commissioner;
- (C) For Phase 1 ~~24-hour~~ emissions limits **in subparagraph (A) of subdivision (2) of subsection (d) only**, install or optimize a control apparatus on the subject emission unit or another subject emission unit at the facility and operate such emission unit to meet an emission limitation established in an order or permit **(certain % below specific baseline?)**;
- (D) As an alternative to both a Phase 1 ~~24-hour~~ emission limit **in subparagraph (A) of subdivision (2) of subsection (d)** and seasonal limit or to a Phase 2 ~~24-hour~~ emission limit **in subparagraph (C) of subdivision (2) of subsection (d)** and seasonal limit, accept an enforceable cap on mass emissions or hours of operation;
- (E) Commit to combust only natural gas if the boiler serving the EGU is permitted to combust either natural gas or fuel oil. This option is only available if operation on natural gas results in quantifiable annual NO_x emissions equal to or less than the NO_x emissions expected if the boiler serving the EGU operated in compliance with the applicable emissions limits of subsection (d) by combusting fuel oil and natural gas;
- (F) For a Phase 1 or Phase 2 ~~24-hour~~ emission limitation **in subparagraphs (A) or (C) of subdivision (2) of subsection (d)**, convert the fuel used from residual fuel oil to distillate fuel oil, if such boiler serving an EGU burned residual oil to provide more than 50% of its total heat input during the last full calendar year immediately prior to the conversion. This option is available for a fuel conversion performed on or after January 1, 2010;
- (G) Limit the operations of the boiler serving the EGU only to Action 6 events implemented by ISO New England pursuant to ISO New England Operating Procedure No. 4 – Action During a Capacity Deficiency, effective August 12, 2014, or subsequent revisions thereof;
- ~~(H) Average emissions with emissions from an over-complying emission unit or units at the same facility or at a different facility under common ownership with the first facility and located in the same ozone nonattainment area. All of the~~

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~~emission units included in an averaging plan must operate within each averaging period. The averaging plan shall achieve the same net emission reduction as the owner or operator would achieve by each emission unit complying with the applicable Phase 1 or Phase 2 24-hour emissions limitation;~~

- ~~(H)~~ (H) Commit to modify or replace the boiler serving an EGU so that the modified or replaced unit complies with the emissions limitations of subsection (d) of this section on a schedule that results in completion of the project no later than June 1, 2019 for a Phase 1 ~~24-hour~~ emission limit ~~in subparagraph (A) of subdivision (2) of subsection (d)~~ or June 1, 2023 for a Phase 2 ~~24-hour~~ emission limit ~~in subparagraph (C) of subdivision (2) of subsection (d)~~;
- ~~(I)~~ (I) Commit to retire another unit located at the same facility as the boiler serving an EGU. This option shall result in a reduction in mass emissions equal to or better than the emissions reduction that would be achieved by compliance of the boiler serving an EGU with the applicable emissions limitation. **Emissions in any 12-month period since January 1, 2010** shall be used to determine the adequacy of the emissions reduction; or
- ~~(J)~~ (J) A combination of any of the above compliance options that results in a reduction in the rate of emissions of the participating emissions unit or units equal to or greater than the emissions rate that would be achieved by compliance with a single option provided in this subdivision.

(3) The owner or operator of an ICI boiler may operate in compliance with one of the options listed in this subdivision in lieu of complying with the applicable emissions limitations of subsection (d) of this section. The options are available as an alternative to any Phase 1 or Phase 2 emissions limitation set out in subsection (d) of this section unless otherwise specified:

- (A) Reduce the emission rate from the subject emission unit by at least 40% from a 2010 baseline emission rate. An owner or operator may request an alternative baseline year if the emissions in the alternative year are more representative of typical unit operations;
- (B) For Phase 1 only, use existing, banked, NO_x DERs to comply with the applicable emission limitation of subsection (d) in accordance with an order or permit issued by the commissioner;
- (C) As an alternative to both a Phase 1 ~~24-hour~~ emission limit ~~in subparagraph (A) of subdivision (3) of subsection (d)~~ and seasonal limit or to a Phase 2 ~~24-hour~~ emission limit ~~in subparagraph (C) of subdivision (3) of subsection (d)~~ and seasonal limit, accept an enforceable cap on mass emissions or hours of operation;
- (D) Commit to combust only natural gas if the ICI boiler is permitted to combust either natural gas or fuel oil. This option is only available if operation on natural

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gas results in quantifiable annual NO_x emissions equal to or less than the NO_x emissions expected if the ICI boiler operated in compliance with the applicable emissions limits of subsection (d) by combusting fuel oil and natural gas;

- (E) For a Phase 1 or Phase 2 ~~24-hour~~ emission limitation ~~in subparagraphs (A) or (C) of subdivision (3) of subsection (d)~~, convert the fuel used from residual fuel oil to distillate fuel oil, if such ICI boiler burned residual oil to provide more than 50% of its total heat input during the last full calendar year immediately prior to the conversion. This option is available for a fuel conversion performed on or after January 1, 2010;
 - (F) For an ICI boiler subject to 40 CFR 63, Subpart DDDDD, operate as a “unit designed to burn gas 1 subcategory.” This option is only available if operation on natural gas results in quantifiable annual NO_x emissions equal to or less than the NO_x emissions expected if the ICI boiler operated in compliance with the applicable emissions limits of subsection (d) by combusting fuel oil and natural gas;
 - ~~(G) — Average emissions with emissions from an over-complying emission unit or units at the same facility or at a different facility under common ownership with the first facility and located in the same ozone nonattainment area. All of the emission units included in an averaging plan must operate within each averaging period. The averaging plan shall achieve the same net emission reduction as the owner or operator would achieve by each emission unit complying with the applicable Phase 1 or Phase 2 24-hour emissions limitation;~~
 - ~~(H)~~(G) Commit to modify or replace the ICI boiler so that the modified or replaced unit complies with the emissions limitations of subsection (d) of this section on a schedule that results in completion of the project no later than June 1, 2019 for a Phase 1 emission limit or June 1, 2023 for a Phase 2 emission limit;
 - ~~(H)~~(H) Commit to retire another unit located at the same facility as the ICI boiler. This option shall result in a reduction in mass emissions equal to or better than the emissions reduction that would be achieved by compliance of the ICI boiler with the applicable emissions limitation. **Emissions in any 12-month period since January 1, 2010** shall be used to determine the adequacy of the emissions reduction; or
 - ~~(H)~~(I) A combination of any of the above compliance options that results in a reduction in the rate of emissions of the participating emissions unit or units equal to or greater than the emissions rate that would be achieved by compliance with a single option provided in this subdivision.
- (4) The owner or operator of a simple cycle combustion turbine may operate in compliance with one of the options listed in this subdivision in lieu of complying with the applicable

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emissions limitations of subsection (d) of this section. The options are available as an alternative to any Phase 1 or Phase 2 emissions limitation set out in subsection (d) of this section unless otherwise specified:

- (A) To comply with the Phase 1 non-ozone season emissions limitation, install and operate water injection technology designed to comply with the Phase 1 ozone season limitation. Water injection technology shall be operated at all times the simple cycle combustion turbine is operating;
- (B) To comply with the Phase 2 non-ozone season emissions limitation, install and operate water injection technology designed to comply with the applicable Phase 2 ~~24-hour~~ emissions limitation ~~in subparagraph (C) of subdivision (4) of subsection (d)~~. Water injection technology shall be operated at all times the simple cycle combustion turbine is operating;
- (C) Reduce the emission rate from the subject emission unit by at least 40% from a 2010 baseline emission rate. An owner or operator may request an alternative baseline year if the emissions in the alternative year are more representative of typical unit operations;
- (D) For Phase 1 only, use existing, banked, NO_x DERs to comply with the applicable emission limitation of subsection (d) in accordance with an order or permit issued by the commissioner;
- (E) Limit the operations of the simple cycle combustion turbine only to Action 6 events implemented by ISO New England pursuant to ISO New England Operating Procedure No. 4 – Action During a Capacity Deficiency, effective August 12, 2014, or subsequent revisions thereof;
- (F) ~~Average emissions with emissions from an over-complying emission unit or units at the same facility or at a different facility under common ownership with the first facility and located in the same ozone nonattainment area. All of the emission units included in an averaging plan must operate within each averaging period. The averaging plan shall achieve the same net emission reduction as the owner or operator would achieve by each emission unit complying with the applicable Phase 1 or Phase 2 24-hour emissions limitation;~~
- (F) Commit to modify or replace the simple cycle combustion turbine so that the modified or replaced unit complies with the emissions limitations of subsection (d) of this section on a schedule that results in completion of the project no later than June 1, 2019 for a Phase 1 emission limit or June 1, 2023 for a Phase 2 emission limit;
- (G) Commit to retire another unit located at the same facility as the simple cycle combustion turbine. This option shall result in a reduction in mass emissions

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equal to or better than the emissions reduction that would be achieved by compliance of the simple cycle combustion turbine with the applicable emissions limitation. Emissions in any 12-month period since January 1, 2010 shall be used to determine the adequacy of the emissions reduction; or

- (H) A combination of any of the above compliance options that results in a reduction in the rate of emissions of the participating emissions unit or units equal to or greater than the emissions rate that would be achieved by compliance with a single option provided in this subdivision.

(5) The owner or operator of a combined cycle combustion turbine may operate in compliance with one of the options listed in this subdivision in lieu of complying with the applicable emissions limitations of subsection (d) of this section. The options are available as an alternative to any Phase 1 or Phase 2 emissions limitation set out in subsection (d) of this section unless otherwise specified:

- (A) Reduce the emission rate from the subject emission unit by at least 40% from a 2010 baseline emission rate. An owner or operator may request an alternative baseline year if the emissions in the alternative year are more representative of typical unit operations;
- (B) For Phase 1 only, use existing, banked, NO_x DERCs to comply with the applicable emission limitation of subsection (d) in accordance with an order or permit issued by the commissioner;
- (C) As an alternative to both a Phase 1 ~~24-hour~~ emission limit in subparagraph (A) of subdivision (5) of subsection (d) and seasonal limit or to a Phase 2 ~~24-hour~~ emission limit in subparagraph (C) of subdivision (5) of subsection (d) and seasonal limit, accept an enforceable cap on mass emissions or hours of operation;
- (D) Commit to combust only natural gas if the combined cycle combustion turbine is permitted to combust either natural gas or fuel oil. This option is only available if operation on natural gas results in quantifiable annual NO_x emissions equal to or less than the NO_x emissions expected if the combined cycle combustion turbine operated in compliance with the applicable emissions limits of subsection (d) by combusting fuel oil and natural gas;
- (E) Limit the operations of the combined cycle combustion turbine only to Action 6 events implemented by ISO New England pursuant to ISO New England Operating Procedure No. 4 – Action During a Capacity Deficiency, effective August 12, 2014, or subsequent revisions thereof;
- ~~(F) Average emissions with emissions from an over-complying emission unit or units at the same facility or at a different facility under common ownership with the first facility and located in the same ozone nonattainment area. All of the~~

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~~emission units included in an averaging plan must operate within each averaging period. The averaging plan shall achieve the same net emission reduction as the owner or operator would achieve by each emission unit complying with the applicable Phase 1 or Phase 2 24-hour emissions limitation;~~

- ~~(G)~~(F) Commit to modify or replace the combined cycle combustion turbine so that the modified or replaced unit complies with the emissions limitations of subsection (d) of this section on a schedule that results in completion of the project no later than June 1, 2019 for a Phase 1 emission limit or June 1, 2023 for a Phase 2 emission limit;
- ~~(H)~~(G) Commit to retire another unit located at the same facility as combined cycle combustion turbine. This option shall result in a reduction in mass emissions equal to or better than the emissions reduction that would be achieved by compliance of the combined cycle combustion turbine with the applicable emissions limitation. **Emissions in any 12-month period since January 1, 2010 shall be used to determine the adequacy of the emissions reduction;** or
- ~~(H)~~(H) A combination of any of the above compliance options that results in a reduction in the rate of emissions of the participating emissions unit or units equal to or greater than the emissions rate that would be achieved by compliance with a single option provided in this subdivision.

(6) The owner or operator of a reciprocating engine may operate in compliance with one of the options listed in this subdivision in lieu of complying with the applicable emissions limitations of subsection (d) of this section. The options are available as an alternative to any Phase 1 or Phase 2 emissions limitation of subsection (d) of this section unless otherwise specified:

- (A) Reduce the emission rate from the subject emission unit by at least 40% from a 2010 baseline emission rate. An owner or operator may request an alternative baseline year if the emissions in the alternative year are more representative of typical unit operations;
- (B) For Phase 1 only, use existing, banked, NO_x DERCs to comply with the applicable emission limitation of subsection (d) in accordance with an order or permit issued by the commissioner;
- (C) Limit the operations of the reciprocating engine only to Action 6 events implemented by ISO New England pursuant to ISO New England Operating Procedure No. 4 – Action During a Capacity Deficiency, effective August 12, 2014, or subsequent revisions thereof;
- ~~(D) Average emissions with emissions from an over-complying emission unit or units at the same facility or at a different facility under common ownership with the~~

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~~first facility and located in the same ozone nonattainment area. All of the emission units included in an averaging plan must operate within each averaging period. The averaging plan shall achieve the same net emission reduction as the owner or operator would achieve by each emission unit complying with the applicable Phase 1 or Phase 2 24-hour emissions limitation;~~

- (~~E~~)(D) Commit to modify or replace the reciprocating engine so that the modified or replaced unit complies with the emissions limitations of subsection (d) of this section on a schedule that results in completion of the project no later than June 1, 2019 for a Phase 1 24-hour emission limit or June 1, 2023 for a Phase 2 24-hour emission limit;
 - (~~F~~)(E) Commit to retire another unit located at the same facility as the reciprocating engine. This option shall result in a reduction in mass emissions equal to or better than the emissions reduction that would be achieved by compliance of the reciprocating engine with the applicable emissions limitation. Emissions in any 12-month period since January 1, 2010 shall be used to determine the adequacy of the emissions reduction; or
 - (~~G~~)(F) A combination of any of the above compliance options that results in a reduction in the rate of emissions of the participating emissions unit or units equal to or greater than the emissions rate that would be achieved by compliance with a single option provided in this subdivision.
- (7) A plan to operate in accordance with a compliance option provided in this subsection shall include the following information:
- (A) Legal name(s), address(es) and telephone number(s) of the owner and operator of the emission unit that is the subject of the compliance option. 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 State;
 - (B) Location address of the premises where the emission unit is located;
 - (C) Make and model of the emission unit;
 - (D) Actual emissions data, if available, or the manufacturer's estimates of emissions, if available;
 - (E) Identification of the compliance option that is the subject of the request and an explanation of the actions that will be taken to operate in compliance with that option. If the chosen option requires physical modification of the emissions unit, a schedule for the modifications;

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- (F) An estimate of the NO_x emissions achieved through compliance with the chosen option **including baseline emissions and the anticipated reduction achieved**; and
 - (G) Any other information requested by the Commissioner upon reviewing the request.
- (8) **An owner or operator who submitted a plan pursuant to this subsection may take actions described in the plan no less than 60 days after submitting a plan pursuant to Phase 1 or no less than 120 days after submitting a plan pursuant to Phase 2, except as provided in subdivision (9) of this subsection.**
- (9) **If a permit is required pursuant to section 22a-174-3a of the Regulations of Connecticut State Agencies to implement a compliance option, the owner or operator shall not implement an activity to implement the compliance option until the owner or operator has applied for and been issued the required permit, except as authorized in section 22a-174-3a subsequent to submission of a permit application.**
- (10) Any use of NO_x DERCs ~~or emissions averaging~~ for the purpose of this subsection shall be:
- (A) Consistent with the provisions of 40 CFR 51, Subpart U and the U.S. Environmental Protection Agency's "Improving Air Quality with Economic Incentive Programs," (EPA-452/R-01-001: January 2001); and
 - (B) Any NO_x DERC shall be used for the purpose of compliance with this section within five calendar years from the year of generation.
- (11) Any compliance option provided in this subsection shall expire no later than May 31, 2030, by which date the emission unit shall comply with the applicable emissions limitation or cease operation, except as follows:
- (A) A compliance option issued pursuant to subdivision (4)(B) of this subsection; or
 - (B) If otherwise specified in an order or permit establishing the compliance option.
- (h) Case-by-case RACT.**
- Working on draft language.*
- (i) Tune-up requirements.**
- (1) **Except as provided in subdivision (2) of this subsection**, the owner or operator of an emission unit subject to this section shall conduct an inspection and tune-up of the emission unit a minimum of once per calendar year beginning with year 2018. The inspection and tune-up of the emission unit shall be conducted according to **the manufacturer's recommended procedures.**

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(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 subpart of 40 CFR 60 or 40 CFR 63 may conduct tune-ups according to 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.

(j) Record keeping.

(1) The owner or operator of an emission unit 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, unless the Commissioner approves in writing the use of another location in Connecticut.

(2) The owner or operator of an emission unit shall make and keep the following records:

- (A) For an emergency engine ~~that is not subject to 40 CFR 63 Subpart ZZZZ~~, records of total monthly operating hours of such engine, identifying the dates and operating hours of non-emergency use. ~~For an emergency engine that is subject to 40 CFR 63 Subpart ZZZZ, records shall be those required by 40 CFR 63.6655;~~
- (B) ~~Records including costs of parts and labor of all~~ The date and work performed for tune-ups, repairs, replacement of parts and other maintenance;
- (C) Records of the dates and times ~~and places~~ of all emission testing required by this section, the persons performing the measurements, the testing methods used, the operating conditions at the time of testing, and the results of such testing;
- (D) For an emission unit that has or is required to have a continuous emissions monitor for NO_x:
 - (i) records of all performance evaluations, calibration checks and adjustments on such monitor,
 - (ii) a record of maintenance ~~procedures performed~~,
 - (iii) all data necessary to complete the quarterly reports required under subsection (k)(3) of this section, and
 - (iv) ~~All~~ Charts, electronically stored data, and printed records produced by such continuous emissions monitor;

~~(E) For any emission unit using NO_x DERCs to comply:~~

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- ~~(i) — the number of NO_x DERCs in its possession, purchased, used, and expired by serial number each year,~~
 - ~~(ii) — the number of NO_x DERCs used during the ozone season and non-ozone season,~~
 - ~~(iii) — a sample spreadsheet with formulas used to determine reported numbers,~~
 - ~~(iv) — monthly operating reports of actual fuel usage including the fuel Btu content, number of barrels, gallons, and cubic feet used for each fuel type,~~
 - ~~(v) — daily MMBtu for each fuel type used and actual heat input, daily NO_x mass emissions, and~~
 - ~~(vi) — actual NO_x emission rates (24-hour average) or NO_x concentration in ppm;~~
- ~~(F) — For any affected unit using NO_x DERCs in the ozone season to comply with the ozone season five-month average or using NO_x DERCs in the non-ozone season to comply with the non-ozone season seven-month average;~~
- ~~(i) — a sample spreadsheet with formulas used to determine reported numbers,~~
 - ~~(ii) — actual fuel usage including the fuel Btu content, number of barrels, gallons, and cubic feet used for each fuel type,~~
 - ~~(iii) — MMBtu for each fuel type and actual heat input, and~~
 - ~~(iv) — actual NO_x emission rates (five-month average for the ozone season or seven-month average for the non-ozone season);~~
- ~~(G)~~(E) For each emission unit for each tune-up conducted pursuant to subsection (i) of this section:
- (i) 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
 - ~~(ii) — The date on which the emission unit is adjusted and the name, title and affiliation of the person performing the adjustment, and~~
 - (ii) The procedures used to inspect and perform adjustments;

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~~(H)~~ For each boiler serving an EGU, ICI boiler, simple cycle turbine or combined cycle turbine during each period of startup:

~~(i)~~ The date and time that startup begins,

~~(ii)~~ The date and time that startup ends,

~~(iii)~~ The electrical load for each hour of startup, if applicable, and

~~(iv)~~ The quantity and heat input of fuel for each hour of startup;

~~(I)~~ For each boiler serving an EGU, ICI boiler, simple cycle turbine or combined cycle turbine during each period of shutdown:

~~(iii)~~ The date and time that shutdown begins,

~~(ii)~~ The date and time that shutdown ends;

~~(iii)~~ The quantity and heat input of fuel for each hour of shutdown, and

~~(iv)~~ The electrical load for each hour of shutdown, if applicable;

~~(F)~~ Copies of all documents submitted to the Commissioner pursuant to this section; and

~~(K)~~ Any other records or reports required by an order or permit issued by the Commissioner pursuant to this section.

(k) Reporting.

(1) Not more than 60 days after the completion of emission tests conducted under subsection ~~(xx)~~(l) of this section, the owner or operator of such emission unit shall submit a written report of the results of such testing to the commissioner.

(2) Not more than 60 days after the completion of a certification test conducted under the requirements of ~~(xxx)~~(m) of this section, the owner or operator of such emission unit shall submit a written report of the results of such testing to the commissioner.

(3) The owner or operator of any emission unit that has or is required to have a continuous emissions monitor for NOx shall submit to the commissioner written quarterly reports of excess emissions and continuous emissions monitor malfunctions. Such reports shall be submitted to the commissioner on or before January 30, April 30, July 30 and October 30 and shall include:

(A) All hourly data for the three calendar month period ending the month before the due date of the report;

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- (B) The date and time of commencement and completion of each period of excess emissions;
 - (C) The magnitude and suspected cause of the excess emissions;
 - (D) All actions taken to correct the excess emissions;
 - (E) The date and time when each malfunction of the continuous emission monitor commenced and ended; ~~and~~
 - (F) All actions taken to correct the malfunction-; ~~and~~
 - (G) Any other information related to continuous emissions monitor excess emissions and malfunctions required by the Department.
- (I) **Emission testing.**
- (1) The owner or operator of an emission unit subject to this section shall demonstrate compliance with the applicable emissions limitations of this section by one of the following means:
 - (A) Conducting periodic emissions testing in accordance with this subsection;
 - (B) Conducting periodic emissions testing in accordance with the frequency, ~~load level~~ and other provisions ~~except the load level~~ of an applicable New Source Performance Standard in 40 CFR 60, except as provided in subdivision (2) of this subsection ~~with regard to frequency and subdivision (7) of this subsection with respect to load~~; or
 - (C) Installing and operating a continuous emissions monitor for NO_x in accordance with subsection ~~(xxx)~~(m) of this section.
 - (2) If an owner or operator is conducting testing in accordance with subdivision (1)(B) of this subsection and the applicable New Source Performance Standard does not identify a periodic test frequency, then the provisions of subdivisions (4) and (5) of this subsection shall apply to determine the frequency of periodic emissions testing.
 - (3) The owner or operator of an emission unit constructed after the effective date of this section shall conduct an initial emission test to demonstrate compliance with this section no later than 12 months after the emissions unit commences operation.
 - (4) The owner or operator of an existing emission unit shall conduct an initial emissions test within five calendar years of the effective date of this section on a date that is no more than 63

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calendar months following the date of the last emission test performed pursuant to former section 22a-174-22(i) of the Regulations of Connecticut State Agencies.

(5) Following the initial emission test conducted under this section, subsequent emission tests shall be conducted no more than 63 calendar months following the date the previous emission test was conducted or the date the previous emission test was required to be conducted, whichever is earlier.

(6) Each emission test shall be conducted in accordance with section 22a-174-5 of the Regulations of Connecticut State Agencies and compliance with the emission limitations of this section shall be determined based on the average of three one-hour tests, each performed over a consecutive 60-minute period except as follows:

- (A) As otherwise specified in an applicable New Source Performance Standard in 40 CFR 60; or
- (B) If the commissioner determines that three one-hour tests are not reasonable given the location, configuration or operating conditions of an emission unit, the commissioner may approve testing where compliance with the emission limitations of this section shall be determined based on the average of test runs shorter than a one-hour period.

(7) An owner or operator shall demonstrate compliance with the emission limitations of this section using sampling and analytical procedures approved under 40 CFR 60, Appendix A or, for affected units, under 40 CFR 75, or under procedures in section 22a-174-5(d) of the Regulations of Connecticut State Agencies. ~~Sampling shall be conducted when the emission unit is at normal operating temperature and, unless allowed otherwise by the commissioner in a permit or order, is operating at or above 90 percent of maximum capacity, except as follows:~~

- ~~(A) Such emission unit is subject to a permit or order designating testing at a load other than 90% of the maximum capacity; or~~
- ~~(B) The owner or operator elects to test at an alternative maximum capacity. Testing of a unit with an alternative maximum capacity shall be conducted at 90% of the alternative maximum capacity. An alternative maximum capacity may be determined on an input or output basis. An alternative maximum capacity shall be elected by the owner or operator in the submission of the form required by section 22a-174-5(d) of the Regulations of Connecticut State Agencies, which describes the test method, sampling protocol and sampling analysis procedures.~~

~~(8) No owner or operator of an emission unit that has been tested at an alternative maximum capacity shall cause or allow such emission unit to operate at a capacity greater than 110% of the alternative maximum capacity.~~

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~~(9) — An owner or operator may conduct a performance test at any time to establish a new alternative maximum capacity.~~

- (A) If the commissioner determines that operating at or above 90 percent of maximum capacity for an emission unit during sampling is not reasonable given the location, configuration or operating conditions of an emission unit, the commissioner may approve testing of an emission unit at an alternative maximum capacity where compliance with the emission limitations of subsection (d) of this section shall be determined based on operating at or above 90 percent of the alternative maximum capacity approved the commissioner; and
- (B) Any emission unit that has operated in excess of 100 percent of its maximum capacity at any time since the most recent performance test performed pursuant to this section shall be tested when the emission unit is operating at or above 90 percent of its highest operating rate since the most recent performance test performed pursuant to this section.

(m) Monitoring.

(1) The owner or operator of any emission unit that emits more than 100 tons of NO_x from a single stack during any calendar year shall install, calibrate, maintain, operate and certify a CEM system for NO_x for each such stack in accordance with section 22a-174-4 of the Regulations of Connecticut State Agencies. A CEM system for NO_x installed pursuant to former section 22a-174-22 of the Regulations of Connecticut State Agencies shall continue to be operated pursuant to this section.

(2) If an owner or operator uses a CEM system to monitor NO_x emissions, the owner or operator shall collect quality assured CEM data for all emission unit operating conditions. Data collection shall include periods of startup or shutdown, monitoring system malfunctions, out-of-control periods, while conducting maintenance or repairs, and periods of required monitoring system quality assurance or quality control activities, such as calibration checks and required zero and span adjustments.

(3) Emissions data used to determine compliance with the applicable emissions limitations of subsection (d) of this section shall not include data collected during the following periods:

- ~~(A) — Startup or shutdown, except for data from a group of emissions units that share a common stack but do not operate in the startup or shutdown mode at the same time;~~
- ~~(B) — Monitoring system malfunctions;~~
- ~~(C)~~(A) When the monitoring system is out-of-control as specified in the facility-specific monitoring plan;

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~~(D)~~(B) Required monitoring system quality assurance or quality control activities, including calibration checks and required zero and span adjustments;

~~(E)~~(C) While conducting maintenance or repairs of the monitoring system to prevent or correct a malfunction; or

~~(F)~~(D) When the emission unit is not operating.

(4) The owner or operator shall notify the commissioner in writing at least 30 days prior to conducting any performance or quality assurance testing of any CEM for NO_x. Any such testing shall be conducted in accordance with a testing protocol approved by the commissioner. Any CEM for NO_x shall be installed, calibrated and operated in accordance with the performance and quality assurance specifications contained in section 22a-174-4 of the Regulations of Connecticut State Agencies and 40 CFR 60, Subpart A, Appendix B and Appendix F, or, for affected units, 40 CFR 75.