State of New Hampshire
Department of Environmental Services
Air Resources Division

General State Permit

GSP-EG-_____

Source Category:
Internal Combustion Engines – Emergency Generators or Fire Pump Engines

This General State Permit is established in accordance with the New Hampshire Code of Administrative Rules, Env-A 620, *Procedures for Establishing and Reestablishing General State Permits*, Env-A 610, *General State Permits and General Permits Under Title V*, and RSA 125-C of the New Hampshire Laws. The established milestones are as follows:

Date of Proposed General State Permit	March 16, 2015
Date Proposed General State Permit Sent to EPA	March 18, 2015
Public Notice Date	March 18, 2015
Close of Public Comment Period	April 17, 2015
Public Hearing Date	None Requested
Expiration Date of General State Permit	April 30, 2020

This General State Permit is issued for the specific emergency engine(s) described in the registration package submitted to the New Hampshire Department of Environmental Services, Air Resources Division (Department) in accordance with Env-A 610.07, *Procedures for Registering to Operate Under a General State Permit*. Any replacement emergency engine or additional emergency engine that the facility wants to install during the permit term requires a new or updated registration package to be submitted to the Department for review.

Within seven (7) months prior to the end of the General State Permit period, the department will begin the reestablishment procedures in accordance with Env-A 620, *Procedures for Establishing and Reestablishing General State Permits*. The Department shall notify each owner or operator of the outcome of the reestablishment process in writing. If the General State Permit is reestablished, the owner or operator of a source operating under the existing General State Permit shall file a request with the Department for re-registration in accordance with Env-A 610 within **90 days** after the Department has reestablished the General State Permit. If the General State Permit is not reestablished, the owner or operator of a source operating under the existing General State Permit shall file an application with the Department for a state permit to operate pursuant to Env-A 608 within **90 days** of being notified by the Department that the General State Permit was not reestablished.

Craig Wright COPY

April 30, 2015

Director
Air Resources Division

Date of Final Action

General State Permit
Internal Combustion Engines – Emergency Generators or Fire Pump Engines

Abbreviations and Acronyms

ASTM	American Society of Testing and Materials
Btu	British thermal units
CFR	Code of Federal Regulations
CI	Compression Ignition
CO	Carbon Monoxide
Department	New Hampshire Department of Environmental Services, Air Resources Division
Env-A	New Hampshire Code of Administrative Rules - Air Resources Division
GSP	General State Permit
HAPs	Hazardous Air Pollutants
hr	hour
ICE	Internal Combustion Engine
lb	pound
MM	million
MMBtu/hr	million British thermal units per hour
NESHAP	National Emission Standards for Hazardous Air Pollutants
NSPS	New Source Performance Standards
NOx	Oxides of Nitrogen
PM_{10}	Particulate Matter < 10 microns
ppm	parts per million
RSA	Revised Statutes Annotated
SI	Spark Ignition
SO_2	Sulfur Dioxide
TSP	Total Suspended Particulate
tpy	tons per consecutive 12-month period
USEPA	United States Environmental Protection Agency
VOC	Volatile Organic Compound

I. Source Category Description and Definitions

A. This GSP is issued for the source category "Internal Combustion Engines – Emergency Generators or Fire Pump Engines."

B. This GSP is issued to an owner or operator of one or more internal combustion engines operated at a source as emergency engines as defined in Condition I.C, where:

1. Each device combusts liquid fuel oil and has a design gross heat input greater than 0.15 MMBtu/hr, and the combined total design gross heat input for all such devices is greater than or equal to 1.5 MMBtu/hr; or

2. Each device combusts gaseous or liquefied propane gas fuel and has a design gross heat input greater than 1.5 MMBtu/hr, and the combined total design gross heat input of all such devices is greater than or equal to 10 MMBtu/hr.

C. For the purpose of this GSP, ***emergency engine*** means a stationary internal combustion engine which operates:

1. As a mechanical or electrical power source only when the primary power source for a facility is not available during an emergency such as a power outage; or

2. During the normal maintenance and testing procedure as recommended by the manufacturer; or

3. During periods in which ISO New England, or any successor Regional Transmission Organization, directs the implementation of operating procedures for voltage reductions of 5% of normal operating voltage requiring more than 10 minutes to implement, voluntary load curtailments by customers, or automatic or manual load shedding within New Hampshire or within the entire New England region, in response to, or to prevent the occurrence of, unusually low frequency, equipment overload, capacity or energy deficiency, unacceptable voltage levels, or other such emergency conditions.

4. The term does **not** include a load-shaving unit or peaking power production unit.

5. The term does **not** include engines used in motor vehicles and mobile nonroad equipment, including those mobile nonroad engines that are self-propelled (such as tractors, bulldozers), propelled while performing their function (such as lawnmowers), or portable or transportable (has wheels, skids, carrying handles, dolly, trailer or platform).[1]

D. ***Spark ignition*** (SI) means relating to a gasoline, natural gas, or liquefied petroleum gas fueled engine or any other type of engine with a spark plug (or other sparking device) and with operating characteristics significantly similar to the theoretical Otto combustion cycle. Spark ignition engines usually use a throttle to regulate intake air flow to control power during normal operation. Dual-fuel engines in which a liquid fuel (typically diesel fuel) is used for combustion ignition and gaseous fuel (typically natural gas) is used as the primary fuel at an annual average ratio of less than 2 parts diesel fuel to 100 parts total fuel on an energy equivalent basis are spark ignition engines.

E. ***Compression ignition*** (CI) means relating to a type of stationary internal combustion engine that is not a spark ignition engine.

F. ***Date of manufacture*** means one of the following things:

1. For freshly manufactured engines and modified engines, date of manufacture means the date the engine is originally produced.

2. For reconstructed engines, date of manufacture means the date the engine was originally produced, except as specified in paragraph (3) of this definition.

3. Reconstructed engines are assigned a new date of manufacture if the fixed capital cost of the new and refurbished components exceeds 75 percent of the fixed capital cost of a comparable entirely new facility. An engine that is produced from a previously used engine block does not retain the date of manufacture of the engine in which the engine block was previously used if the engine is produced using all new components except for the engine block. In these cases, the date of manufacture is the date of reconstruction or the date the new engine is produced.

II. Emission Unit Identification

This permit covers the devices identified in Table 1:

Table 1 - Emission Unit Identification

Emission Unit ID	Description of Emission Unit	Permitted Fuel Type	Date Construction Commenced (Ordered)	Manufacture Date[2]	Applicable NSPS and/or NESHAP Regulation
EU01	All Internal Combustion Engines	Diesel and Gas-fired	On or before July 11, 2005	On or before April 1, 2006	40 CFR Part 63 Subpart ZZZZ (existing)
EU02	All Diesel-fired (CI) Internal Combustion Engines that are NOT Fire Pumps	Diesel-fired	After July 11, 2005	On or before April 1, 2006	40 CFR Part 63 Subpart ZZZZ (existing)

[1] A portable non-road engine becomes stationary if it stays in one location for more than 12 months (or full annual operating period of a seasonal source).

[2] Owners and operators of any stationary CI engine that is modified or reconstructed after July 11, 2005 must meet the emission standards applicable to the model year, maximum engine power, and displacement of the modified or reconstructed engine that are specified in §60.4205. Owners and operators of stationary SI engines that are modified or reconstructed after June 12, 2006 must meet the applicable requirements of §60.4233.

General State Permit
Internal Combustion Engines – Emergency Generators or Fire Pump Engines

Table 1 - Emission Unit Identification					
Emission Unit ID	**Description of Emission Unit**	**Permitted Fuel Type**	**Date Construction Commenced (Ordered)**	**Manufacture Date[2]**	**Applicable NSPS and/or NESHAP Regulation**
EU03	All Diesel-fired (CI) Internal Combustion Engines that are NOT Fire Pumps	Diesel-fired	After July 11, 2005 but on or before June 12, 2006	After April 1, 2006	40 CFR Part 63 Subpart ZZZZ (existing) **AND** 40 CFR Part 60 Subpart IIII
EU04	All Diesel-fired (CI) Internal Combustion Engines that are NOT Fire Pumps	Diesel-fired	After June 12, 2006	After April 1, 2006	40 CFR Part 60 Subpart IIII
EU05	Certified National Fire Protection Association Fire Pumps	Diesel-fired	After July 11, 2005 but on or before June 12, 2006	On or before July 1, 2006	40 CFR Part 63 Subpart ZZZZ (existing)
EU06	Certified National Fire Protection Association Fire Pumps	Diesel-fired	After July 11, 2005 but on or before June 12, 2006	After July 1, 2006	40 CFR Part 63 Subpart ZZZZ (existing) **AND** 40 CFR Part 60 Subpart IIII
EU07	Certified National Fire Protection Association Fire Pumps	Diesel-fired	After June 12, 2006	On or before July 1, 2006	None
EU08	Certified National Fire Protection Association Fire Pumps	Diesel-fired	After June 12, 2006	After July 1, 2006	40 CFR Part 60 Subpart IIII
EU09	All Gas-fired (SI) Internal Combustion Engines	Gas-fired	Before June 12, 2006	Before January 1, 2009	40 CFR Part 63 Subpart ZZZZ (existing)
EU10	All Gas-fired (SI) Internal Combustion Engines	Gas-fired	After June 12, 2006	Before January 1, 2009	None
EU11	All Gas-fired (SI) Internal Combustion Engines	Gas-fired	After June 12, 2006	On or after January 1, 2009	40 CFR Part 60 Subpart JJJJ

General State Permit
Internal Combustion Engines – Emergency Generators or Fire Pump Engines

III. State Operating and Emission Limitations

All Owners or Operators to whom this GSP has been issued shall be subject to the state operating and emission limitations identified in Table 2, below:

Table 2 - State Operating and Emission Limitations

Item #	Requirement	Applicable Emission Unit	Regulatory Basis
1	*Facility-Wide Emission Limitations*[3] a. Facility-wide emissions of SO_2, PM_{10} and CO shall each be limited to less than 100 tpy; b. Facility-wide emissions of NOx and VOCs shall each be limited to less than 50 tpy; and c. Facility-wide emissions of Hazardous Air Pollutants (HAPs, as defined in Section 112 of the 1990 Clean Air Act Amendments) shall be limited to less than 10 tpy for any individual HAP and 25 tpy for all HAPs combined.	Facility Wide	Env-A 604.02(a)(1) Env-A 610.02(b) & Env-A 1301.02(n)
2	*Fuel Usage Limitation* a. Total fuel consumption during any consecutive 12-month period for each emergency engine shall not exceed a quantity of fuel that would result in an exceedance of any emissions limitation contained in Table 2, Item 1; and b. Each emergency engine shall be limited to the combustion of virgin petroleum products, natural gas, propane, and biofuels as defined in Env-A 1401.03(a).	Facility Wide	Env-A 604.02(a)(2) & Env-A 1402
3	*Maximum Sulfur Content Allowable in Liquid Fuels* a. The sulfur content of No. 2 oil shall not exceed 0.40 percent sulfur by weight. b. The sulfur content of kerosene-1 oil shall not exceed 0.04 percent sulfur by weight.	EU01, EU02, EU05 & EU07	Env-A 1603.01(a) & Env-A 1603.01(e)
4	*Operating Hours Limitation* Each emergency engine shall be limited to 500 hours of total operation during any consecutive 12-month period and only under the operating scenarios limited in Table 2, Item 5.	EU01 - EU11	Env-A 604.02 Env-A 606.02(c)(1) & Env-A 610.04(b)
5	*Limitations on Operating Scenarios for Emergency Engines* Each emergency engine shall only operate: a. As a mechanical or electrical power source only when the primary power source for a facility is not available during an emergency; or b. During the normal maintenance and testing; or c. During periods in which ISO New England, or any successor Regional Transmission Organization, directs the implementation of operating procedures, for voltage reductions of 5% of normal operating voltage requiring more than 10 minutes to implement, voluntary load curtailments by customers, or automatic or manual load-shedding, within New Hampshire or within the entire New England region, in response to, or to prevent the occurrence of, unusually low frequency, equipment overload, capacity or energy deficiency, unacceptable voltage levels, or other such emergency conditions. d. No emergency engine shall operate as a load-shaving or peaking power production unit.	EU01 - EU11	Env-A 101.671

[3] Emission limits are set for the purpose of establishing this source as a minor source of air pollution. Such limits shall not be construed to allow this source to construct or install a new or modified source, area source or device except in the manner set forth in the New Hampshire Rules Governing the Control of Air Pollution and, specifically, Env-A 603. Compliance with Table 2, Item 1 is to be verified using fuel usage or hours of operation records and the appropriate USEPA AP-42 emission factors, manufacturer's certified emission rates or stack test data.

General State Permit
Internal Combustion Engines – Emergency Generators or Fire Pump Engines

Table 2 - State Operating and Emission Limitations			
Item #	**Requirement**	**Applicable Emission Unit**	**Regulatory Basis**
6	*Visible Emission Standard for Fuel Burning Devices Installed on or Prior to May 13, 1970* The average opacity from fuel burning devices installed on or prior to May 13, 1970 shall not exceed 40 percent for any continuous 6-minute period.	EU01 & EU09 for those devices installed on or prior to May 13, 1970	Env-A 2002.01
7	*Visible Emission Standard for Fuel Burning Devices Installed After May 13, 1970* The average opacity from fuel burning devices installed after May 13, 1970 shall not exceed 20 percent for any continuous 6-minute period.	EU01 - EU11 for those devices installed after May 13, 1970	Env-A 2002.02
8	*Activities Exempt from Visible Emission Standards* The average opacity shall be allowed to be in excess of the standards specified in Table 2, Items 6 and 7, for one period of 6 continuous minutes in any 60-minute period during startup, shutdown, or malfunction.	EU01 - EU11	Env-A 2002.04(c)
9	*Particulate Emission Standards for Fuel Burning Devices Installed on or Prior to May 13, 1970* The maximum allowable particulate matter emission rate for fuel burning devices installed on or before May 13, 1970 shall be as specified below, where: a. For devices that have a maximum gross heat input rate of less than 10 MMBtu/hr, the particulate emission rate shall not exceed 0.60 lb/MMBtu. b. For devices that have a maximum gross heat input rate of equal to or greater than 10 MMBtu/hr but less than 10,000 MMBtu/hr, the particulate emission rate (E) shall not exceed the valued calculated by raising the maximum gross heat input rate (I) to the -0.166 power, and multiplying the result by 0.880 as shown in the following formula: $E = 0.880I^{-0.166}$	EU01, EU09 for those devices installed on or prior to May 13, 1970	Env-A 2003.01
10	*Particulate Emission Standards for Fuel Burning Devices Installed After May 13, 1970 but before January 1, 1985* The maximum allowable particulate matter emission rate for fuel burning devices installed after May 13, 1970 but before January 1, 1985 shall be as specified below, where: a. For devices that have a maximum gross heat input rate of less than 10 MMBtu/hr, the particulate emission rate shall not exceed 0.60 lb/MMBtu. b. For devices that have a maximum gross heat input rate of equal to or greater than 10 MMBtu/hr but less than 250 MMBtu/hr, the particulate emission rate (E) shall not exceed the valued calculated by raising the maximum gross heat input rate (I) to the -0.234 power, and multiplying the result by 1.028 as shown in the following formula: $E = 1.028I^{-0.234}$	EU01 - EU11 for those devices installed after May 13, 1970 but before January 1, 1985	Env-A 2003.02
11	*Particulate Emission Standards for Fuel Burning Devices Installed on or After January 1, 1985* The maximum allowable particulate matter emission rate for fuel burning devices installed on or after January 1, 1985 for devices that have a maximum gross heat input rate of less than 100 MMBtu/hr shall not exceed 0.30 lb/MMBtu.	EU01 - EU11 for those devices installed on or after January 1, 1985	Env-A 2003.03

IV. Federal Operating and Emission Limitations

Compression Ignition (CI) NSPS Rule (40 CFR Part 60, Subpart IIII)

A. The CI NSPS rule applies to owners or operators of emergency CI engines that were:

1. Constructed (ordered) after July 11, 2005 and manufactured after April 1, 2006 for emergency engines;
2. Constructed (ordered) after July 11, 2005 and manufactured after July 1, 2006 for fire pump engines; or
3. Modified or reconstructed after July 11, 2005.

B. All owners or operators of Emission Units EU03, EU04, EU06 and EU08 shall be subject to the federal operating and emission limitations of the CI NSPS as identified in Table 3, below:

Table 3 - CI NSPS Operating and Emission Limitations

Item #	Requirement	Applicable Emission Unit	Regulatory Basis
1	The owner or operator of a 40 CFR Part 60, Subpart IIII emergency engine shall: a. Purchase a certified emergency engine in accordance with the requirements listed in 40 CFR Part 60, Subpart IIII; b. Install, configure, operate and maintain the engine according to the manufacturer's emission-related written instructions or change only the emission-related settings in a way that is permitted by the manufacturer; and c. Operate and maintain the engine to meet the emission standards over the entire life of the engine.	EU03, EU04, EU06 & EU08	40 CFR 60.4206, 40 CFR 60.4211(a) & 40 CFR 60.4211(c) (Subpart IIII)
2	*Ultra Low Sulfur Diesel (ULSD) Fuel Requirement* The sulfur content of diesel fuel burned in the 40 CFR Part 60, Subpart IIII emergency engines shall not exceed 15 ppm (0.0015 percent sulfur by weight).	EU03, EU04, EU06 & EU08	40 CFR 60.4207 (Subpart IIII)
3	*Operating Limitations for Emergency Engines* In addition to the operating hours limitation in Table 2, Item 4, the owner or operator shall operate the emergency engine for any combination of the purposes listed below for a maximum of 100 hours per calendar year[4]: a. Emergency engines may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine; and b. Emergency engines may be operated for emergency demand response but only as defined in Table 2, Item 5(c).	EU03, EU04, EU06 & EU08	40 CFR 60.4211(f) (Subpart IIII)

[4] The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency engine beyond 100 hours per calendar year.

General State Permit
Internal Combustion Engines – Emergency Generators or Fire Pump Engines

Spark Ignition (SI) NSPS Rule (40 CFR Part 60, Subpart JJJJ)

C. The SI NSPS rule applies to owners or operators of emergency SI engines that were:

1. Constructed (ordered) after June 12, 2006 and manufactured on or after January 1, 2009 for emergency engines with a maximum engine power greater than 19 kW (25 hp); or
2. Modified or reconstructed after June 12, 2006.

D. All owners or operators of Emission Unit EU11 shall be subject to the federal operating and emission limitations of the SI NSPS which are identified in Table 4, below:

Table 4 - SI NSPS Operating and Emission Limitations

Item #	Requirement	Applicable Emission Unit	Regulatory Basis
1	The owner or operator of a 40 CFR Part 60, Subpart JJJJ emergency engine shall: a. Purchase a certified emergency engine in accordance with the requirements listed in 40 CFR Part 60, Subpart JJJJ; b. Install, configure, operate and maintain the engine according to the manufacturer's emission-related written instructions or change only the emission-related settings in a way that is permitted by the manufacturer; and c. Operate and maintain the engine to meet the emission standards over the entire life of the engine.	EU11	40 CFR 60.4234 & 40 CFR 60.4243 (Subpart JJJJ)
2	*Fuel Requirement* The sulfur content of gasoline fuel burned in the 40 CFR Part 60, Subpart JJJJ emergency engines shall not exceed 80 ppm.	EU11	40 CFR 60.4235 (Subpart JJJJ)
3	*Operating Limitations for Emergency Engines* In addition to the operating hours limitation in Table 2, Item 4, the owner or operator shall operate the emergency engine for any combination of the purposes listed below for a maximum of 100 hours per calendar year[5]: a. Emergency engines may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine; b. Emergency engines may be operated for emergency demand response but only as defined in Table 2, Item 5(c); and c. The owner or operator of an emergency engine that is natural gas fired may operate their engines using propane for a maximum of 100 hr/yr as an alternative fuel solely during emergency operations, but must keep records pursuant to Table 7, Item 5(c).	EU11	40 CFR 60.4243(d) & 40 CFR 60.4243(e) (Subpart JJJJ)

[5] The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency engine beyond 100 hours per calendar year.

General State Permit
Internal Combustion Engines – Emergency Generators or Fire Pump Engines

Reciprocating Internal Combustion Engine (RICE) NESHAP Rule (40 CFR Part 63, Subpart ZZZZ)

E. The RICE NESHAP rule applies to owners or operators of all stationary emergency engines except those listed in Condition F. below.

1. Emergency engines located at an area source of HAP are considered ***existing*** if the original owner or operator of the engine entered into a contract for the on-site installation of the engine before June 12, 2006.
2. Emergency engines located at an area source of HAP for which the original owner or operator of the engine entered into a contractual obligation for the on-site installation of the engine on or after June 12, 2006 are ***new*** engines.
3. Emergency engines located at an area source of HAP are considered "reconstructed" if they meet the definition of ***reconstruction*** in § 63.2 and reconstruction is commenced on or after June 12, 2006.
4. Relocating an existing engine to a new location (same facility or elsewhere) does not change the engine's status as an ***existing*** engine.

F. The RICE NESHAP rule does **not** apply to existing residential, commercial or institutional emergency stationary engines located at an area source of HAP emissions, provided that the engines do not operate or are not contractually obligated to be available for more than 15 hours per calendar year for emergency demand response or voltage/frequency deviations and the engines do not otherwise operate in non-emergency situations as part of a financial arrangement with another entity. The engine must still meet the definition of an "emergency engine" as outlined in Table 5, Item 1.[6]

G. Except for engines that meet the exemptions listed above, all owners or operators of Emission Units EU01, EU02, EU03, EU05, EU06 and EU09 shall be subject to the federal operating and emission limitations of the RICE NESHAP as identified in Table 5, below:

Table 5 - RICE NESHAP Operating and Emission Limitations

Item #	Requirement	Applicable Emission Unit	Regulatory Basis
1	*Operating Limitations for Existing CI and SI Emergency Engines* In addition to the operating hours limitation in Table 2, Item 4, the owner or operator shall operate the emergency engine for any combination of the purposes listed below for a maximum of 100 hours per calendar year[7]: a. Emergency engines may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine; and b. Emergency engines may be operated for emergency demand response but only as defined in Table 2, Item 5(c).	EU01, EU02, EU03, EU05, EU06 & EU09	40 CFR 63.6640(f) (Subpart ZZZZ)

[6] Residential emergency stationary engines include those used in residential establishments such as homes or apartment buildings. Commercial emergency stationary engines are used in commercial establishments such as office buildings, hotels, stores, telecommunications facilities, restaurants, financial institutions such as banks, doctor's offices, and sports and performing arts facilities. Institutional emergency stationary engines are used in institutional establishments such as medical centers, nursing homes, research centers, institutions of higher education, correctional facilities, elementary and secondary schools, libraries, religious establishments, police and fire stations. Guidance on the RICE NESHAP residential-institutional-commercial emergency engine definition can be found at http://www.epa.gov/ttn/atw/icengines/docs/guidance_emergency_engine_def.pdf.

[7] The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency engine beyond 100 hours per calendar year.

General State Permit
Internal Combustion Engines – Emergency Generators or Fire Pump Engines

Table 5 - RICE NESHAP Operating and Emission Limitations			
Item #	**Requirement**	**Applicable Emission Unit**	**Regulatory Basis**
2	*RICE NESHAP - Existing Emergency Engines*[8] The owner or operator of all existing emergency engines subject to 40 CFR 63, Subpart ZZZZ shall: a. Change oil and filter annually, or in accordance with an Oil Analysis Program prepared and implemented as specified in §63.6625(i) and Table 6, Item 4. b. Inspect all hoses and belts annually and replace as necessary; c. Operate and maintain the stationary engine according to the manufacturer's emission-related written instructions (O&M manual) or develop your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions; and d. Minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes.	EU01, EU02, EU03, EU05, EU06 & EU09	40 CFR 63.6603 & 40 CFR 63.6625 (Subpart ZZZZ)
3	*RICE NESHAP - Existing CI Emergency Engines*[9] In addition to Table 5, Item 2, above, the owner or operator of an existing CI emergency engine shall inspect the air cleaner annually, and replace as necessary.	EU01, EU02, EU03, EU05 & EU06	40 CFR 63.6603 & 40 CFR 63.6625 (Subpart ZZZZ)
4	*RICE NESHAP - Existing SI Emergency Engines*[9] In addition to Table 5, Item 2, above, the owner or operator of an existing SI emergency engine shall inspect the spark plugs annually and replace as necessary.	EU01 & EU09	40 CFR 63.6603 & 40 CFR 63.6625 (Subpart ZZZZ)
5	*ULSD Fuel Requirement for Specific Engines Used for Emergency Demand Response* Beginning January 1, 2015, if you own or operate an existing CI emergency engine with a site rating of more than 100 brake HP and a displacement of less than 30 liters per cylinder that uses diesel fuel and operates or is contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in Table 2, Item 5(c), the sulfur content of diesel fuel burned in the emergency engine shall not exceed 15 ppm (0.0015 percent sulfur by weight), except that any existing diesel fuel purchased (or otherwise obtained) prior to January 1, 2015, may be used until depleted.	EU01, EU02, EU03, EU05 & EU06 as applicable	40 CFR 63.6604(b) (Subpart ZZZZ)
6	*NESHAP General Provisions* The owner or operator must be in compliance with the emission limitations, operating limitations, and other requirements in 40 CFR Part 60, Subpart ZZZZ that apply at all times. At all times, the owner or operator must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require you to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be	EU01, EU02, EU03, EU05, EU06 & EU09	40 CFR 63.6605 (Subpart ZZZZ)

[8] If an emergency engine is operating during an emergency and it is not possible to shut down the engine in order to perform the management practice requirements on the schedule required in Table 5, or if performing the management practice on the required schedule would otherwise pose an unacceptable risk under federal, state, or local law, the management practice can be delayed until the emergency is over or the unacceptable risk under federal, state, or local law has abated. The management practice should be performed as soon as practicable after the emergency has ended or the unacceptable risk under federal, state or local law has abated. Sources must report any failure to perform the management practice on the schedule required and the federal, state or local law under which the risk was deemed unacceptable.

Table 5 - RICE NESHAP Operating and Emission Limitations			
Item #	**Requirement**	**Applicable Emission Unit**	**Regulatory Basis**
	based on information available to the Department which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.		

V. Monitoring and Testing Requirements

All owners or operators to whom this GSP has been issued shall be subject to the applicable monitoring and testing requirements identified in Table 6, below:

Table 6 - Monitoring and Testing Requirements				
Item #	**Method of Compliance**	**Frequency**	**Applicable Emission Unit**	**Regulatory Basis**
1	*Stack Testing* When conditions warrant, the Department may require the owner or operator to conduct stack testing in accordance with USEPA or other Department approved methods.	Upon request by the Department	Facility Wide	RSA 125-C:6 XI
2	*Sulfur Content of Liquid Fuels* Conduct testing in accordance with appropriate ASTM test methods or retain delivery tickets in accordance with Table 7, Item 2 in order to demonstrate compliance with the sulfur content limitation provisions specified in this permit for liquid fuels.	For each delivery of fuel oil/diesel to the Facility	EU01 - EU08	Env-A 806.02 & Env-A 806.05
3	Each emergency engine shall be equipped with a non-resettable hour meter.	Continuous	EU01 - EU11	40 CFR 60.4209 (Subpart IIII) 40 CFR 60.4237 (Subpart JJJJ) 40 CFR 63.6625 (Subpart ZZZZ) Env-A 604.01
4	*Oil Analysis* The oil analysis program for the emergency generators must at a minimum analyze the following parameters: a. Total base number, viscosity, and percent water content; b. The condemning limits for the following parameters in a.) above are: 1. Total base number is less than 30% of the total base number of the oil when new; 2. Viscosity of the oil has changed by more than 20% from the viscosity of the oil when new; or 3. Percent water content (by volume) is greater than 0.5 4. If all of the condemning limits listed in b.) above are not exceeded, the engine oil is not required to be changed; 5. If any of the condemning limits listed in b.) above are exceeded, the engine oil must be changed within 2 business days of receiving the results of the analysis; and 6. If the engine is not in operation when the results of the analysis are received, the engine oil must be changed within two business days or before commencing operation of the engine, whichever is later.	Annually if choosing to use the oil analysis program in lieu of the annual oil change specified in Table 5, Item 2	EU01, EU02, EU03, EU05, EU06 & EU09	40 CFR 63.6625(i) (Subpart ZZZZ)

VI. Recordkeeping Requirements

All Owners or Operators to whom this GSP has been issued shall be subject to the applicable recordkeeping requirements identified in Table 7, below:

Table 7 - Recordkeeping Requirements

Item #	Requirement	Duration/ Frequency	Applicable Emission Unit	Regulatory Basis
1	*Record Retention and Availability* Keep the required records on file. These records shall be available for review by the Department upon request.	Retain for a minimum of 5 years	Facility Wide	Env-A 902
2	*Liquid Fuel Oil Recordkeeping Requirements* In lieu of sulfur testing pursuant to Table 6, Item 2, the Owner or Operator may maintain a written statement from the fuel supplier that the sulfur content of the fuel as delivered does not exceed state or federal standards for that fuel.	Whenever there is a change in fuel supplier, but at least annually	EU01 - EU08	Env-A 806.05 & Env-A 903.03
3	*General Recordkeeping Requirements for Combustion Devices* Maintain the following records of fuel characteristics and utilization for the fuel used in the combustion devices: a. Type (i.e. diesel fuel, ULSD, gasoline, kerosene, natural gas, propane) and amount of fuel burned in each device; or b. Type and amount of fuel burned in multiple devices and hours of operation of each device to be used to apportion fuel use between the multiple devices[9]; and c. Hours of operation of each emergency generator.	Monthly	EU01 - EU11	Env-A 903.03 & Env-A 906
4	*NSPS Subpart IIII Recordkeeping Requirements* The owner or operator shall maintain the following records: a. Documentation from the CI engine manufacturer certifying that the engine complies with the applicable emission standards stated in 40 CFR Part 60, Subpart IIII; and b. A copy of the manufacturer's emission-related written instructions (O&M manual) for the engine and its associated control devices.	Maintain Up-to-date Data	EU03, EU04, EU06 & EU08	40 CFR 60.4211 (Subpart IIII)
5	*NSPS Subpart JJJJ Recordkeeping Requirements* The owner or operator shall maintain the following records: a. Documentation from the SI engine manufacturer certifying that the engine complies with the applicable emission standards stated in 40 CFR Part 60, Subpart JJJJ; and b. A copy of the manufacturer's emission-related written instructions (O&M manual) for the engine and its associated control devices. c. The owner or operator of an emergency engine that is natural gas fired but operates the engine using propane must keep records of the hours of operation of the engine while on propane as well as documentation of the reason for the emergency operation during that time period.	Maintain Up-to-date Data	EU11	40 CFR 60.4243 (Subpart JJJJ)

[9] If the owner or operator does not have fuel meters on the emergency generators, the owner or operator may track hours of operation of each emergency generator on a monthly basis (hr/month) and assume every hour of operation is at maximum capacity (gal/hr) for each device in order to calculate the amount of fuel burned in each emergency generator (gal/month). If the device can burn multiple fuels, the owner or operator shall track hours of operation for each fuel type.

General State Permit
Internal Combustion Engines – Emergency Generators or Fire Pump Engines

Table 7 - Recordkeeping Requirements				
Item #	**Requirement**	**Duration/ Frequency**	**Applicable Emission Unit**	**Regulatory Basis**
6	<u>*NESHAP Subpart ZZZZ Recordkeeping Requirements*</u> The owner or operator shall: a. Maintain the manufacturer's emission-related written instructions (O&M manual); or b. Develop their own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practices for minimizing emissions.	Maintain Up-to-date Data	EU01, EU02, EU03, EU05, EU06 & EU09	40 CFR 63.6625 (Subpart ZZZZ)
7	<u>*Additional Recordkeeping Requirements for Emergency Engines Subject to NSPS and NESHAP Regulations*</u> The owner or operator shall maintain the following records: a. The maintenance conducted on the engine in order to demonstrate that the device was operated and maintained according to the O&M manual. b. The operation of the engine in emergency (i.e. loss of power) and non-emergency situations (i.e. maintenance & testing or for the operating scenarios described in Table 2, Item 5(c)) that are recorded through the non-resettable hour meter. The owner or operator must record the time of operation of the engine and the reason the engine was in operation during that time. c. Documentation of the federal, state or local standard(s) that require the owner or operator to conduct maintenance and testing for more than 100 hours per calendar year if the owner or operator is exercising the option listed in Footnotes 4, 5 or 8.	Maintain Up-to-date Data	EU01, EU02, EU03, EU04, EU05, EU06, EU08, EU09 & EU11	40 CFR 60.4211 & 40 CFR 60.4214 (Subpart IIII) 40 CFR 60.4243 & 40 CFR 60.4245 (Subpart JJJJ) 40 CFR 63.6655 (Subpart ZZZZ) & Env-A 906
8	<u>*Additional Recordkeeping Requirements for Other Emergency Engines*</u> The owner or operator shall maintain records of the operation of the engine in emergency (i.e. loss of power) and non-emergency situations (i.e. maintenance & testing or for the operating scenarios described in Table 2, Item 5(c)) that are recorded through the non-resettable hour meter. The owner or operator must record the time of operation of the engine and the reason the engine was in operation during that time.	Maintain Up-to-date Data	EU07 & EU10	Env-A 906
9	<u>*General NO_x Recordkeeping Requirements*</u> If the actual annual NO_x emissions from the Facility are greater than or equal to 10 tpy[10], then record the following information: a. Identification of each fuel burning device; b. Operating schedule during the high ozone season (June 1 through August 31) for each fuel burning device identified in Table 7, Item 9.a, above, including: 1. Typical hours of operation per day; 2. Typical days of operation per calendar month;	Maintain Data for Annual Report	EU01 – EU11	Env-A 905.02

[10] A rule of thumb for determining applicability of the recordkeeping requirement of Table 7, Item 9 and the reporting requirement of Table 8, Item 1 is that actual annual NOx emissions of 10 tons per year (tpy) would conservatively equate to 33,000 gallons per year of diesel or gasoline fuel burned in the emergency engines. Most facilities with a small number of emergency engines that have small design ratings (hp or kW) or which operate cleaner, newer engines subject to 40 CFR Part 60, Subparts IIII and JJJJ will not reach this applicability threshold. However, if you have other devices that emit NOx (i.e. boilers) or multiple emergency engines or larger or older emergency engines, the NOx emission threshold may be reached even when operating less than 500 hours per year. Therefore, the owner or operator shall keep records sufficient to determine facility wide NOx emissions for applicability of these recordkeeping and reporting requirements.

General State Permit
Internal Combustion Engines – Emergency Generators or Fire Pump Engines

Table 7 - Recordkeeping Requirements				
Item #	**Requirement**	**Duration/ Frequency**	**Applicable Emission Unit**	**Regulatory Basis**
	3. Number of weeks of operation; 4. Type and amount of each fuel burned; 5. Heat input rate in MMBtu/hour; 6. Actual NOx emissions for the calendar year and a typical high ozone day during that calendar year; and 7. Emission factors and the origin of the emission factors used to calculate the NOx emissions.			
10	*Emergency Demand Response Recordkeeping Requirements* If you own or operate an emergency stationary emergency engine with a maximum engine power more than 100 horsepower that operates or is contractually obligated to be available for more than 15 hours per calendar year for the purpose of Emergency Demand Response as allowed for in Table 2, Item 5(c), you must keep the following records: a. Company name and address where the engine is located; b. Date of the report and beginning and ending dates of the reporting period; c. Engine site rating and model year; d. Latitude and longitude of the engine in decimal degrees reported to the fifth decimal place; e. Hours operated including the date, start time, and end time for engine operation for the purposes of Emergency Demand Response; f. Number of hours the engine is contractually obligated to be available for Emergency Demand Response; g. For those engines subject to 40 CFR Part 63, Subpart ZZZZ only, the report must also contain: 1. If there were no deviations from the fuel requirements of Table 5, Item 5 that apply to the engine (if any), a statement that there were no deviations from the fuel requirements during the reporting period; and 2. If there were deviations from the fuel requirements of Table 5, Item 5 that apply to the engine (if any), information on the number, duration, and cause of deviations, and the corrective action taken.	Continuously Beginning January 1, 2015	EU01 – EU11 that participate in Emergency Demand Response	40 CFR 60.4214 (Subpart IIII) & 40 CFR 60.4245 (Subpart JJJJ) & 40 CFR 63.6650 (Subpart ZZZZ)

General State Permit
Internal Combustion Engines – Emergency Generators or Fire Pump Engines

VII. Reporting Requirements

A. Pursuant to Env-C 203.02(b), *Date of Issuance or Filing*, written documents shall be deemed to have been filed with or received by the Department on the actual date of receipt by the Department, as evidenced by a date stamp placed on the document by the Department in the normal course of business.

B. All emissions data submitted to the Department shall be available to the public. Claims of confidentiality for any other information required to be submitted to the Department pursuant to this permit shall be made at the time of submission in accordance with Env-A 103, *Claims of Confidentiality*.

C. All Owners or Operators to whom this GSP has been issued shall be subject to the applicable reporting requirements identified in Table 8, below.

Table 8 – Reporting Requirements

Item #	Requirement	Frequency	Applicable Emission Unit	Regulatory Basis
1	*NO_x Emission Statements Reporting Requirements* If the actual annual NO_x emissions from all permitted devices located at the Facility are greater than or equal to 10 tpy, then submit the following information in the NOx emission statements report: a. Actual monthly NO_x emissions for the previous calendar year; and b. All data recorded in accordance with Table 7, Item 9.	Annually as applicable (received by the Department no later than April 15th of the following year)	Facility Wide	Env-A 909
2	*Emergency Demand Response Reporting Requirements* a. If you meet the criteria for recordkeeping contained in Table 7, Item 10, you must submit an annual report which contains the information required in Table 7, Item 10. b. The first annual report must cover the calendar year 2015 and must be submitted no later than March 31, 2016. Subsequent annual reports for each calendar year must be submitted no later than March 31 of the following calendar year. c. The annual report must be submitted electronically using the subpart specific reporting form in the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) (www.epa.gov/cdx). However, if the reporting form specific to this subpart is not available in CEDRI at the time that the report is due, the written report must be submitted to the Administrator and the Department at the following addresses: USEPA New England Attn: Air Compliance Clerk 5 Post Office Square Suite 100 (OES04-2) Boston, MA 02109-3912 and NHDES, Air Resources Division 29 Hazen Drive P.O. Box 95 Concord, NH 03302-0095 ATTN: Section Supervisor, Compliance Bureau	Annually beginning calendar year 2015 as applicable (received by USEPA & the Department no later than March 31st of the following year)	EU01 – EU11 that participate in Emergency Demand Response	40 CFR 60.4214 (Subpart IIII) & 40 CFR 60.4245 (Subpart JJJJ) & 40 CFR 63.6650 (Subpart ZZZZ)