

EMERGENCY GENERATOR PROCUREMENT

1. Version, Date. 5, 14 May 13 (JDG)

2. Purpose. This procedure establishes the requirements for emergency generator set selection and purchase at Marine Corps Base, Quantico (MCBQ). Complying with these requirements will assist with the management of emergency generators at MCBQ in accordance with the Base's air permit(s).

3. Applicability

a. Audience. The procedure applies to all personnel involved in designing, selecting, and purchasing emergency generator equipment for new construction, building refurbishment, equipment replacement, or new equipment installation at MCBQ.

b. Scope. The procedure applies to the selection and purchase of any stationary generator set used to provide emergency, back-up power during interruption of service from the normal power supplier. This procedure does not apply to mobile generators that are used on a temporary basis or to generators that will serve as the primary source of electricity at any location.

4. Definitions. The following definitions are provided to support this procedure:

a. Generator - a generator set (generator and associated parts, e.g., internal tanks, controllers, batteries) that provides emergency back-up power, and which otherwise operates for maintenance and testing purposes only.

b. Portable generator - a generator set that is not fixed for use in one location, easily transported, and is used for only a short period of time at one designated location.

c. Project Representative - unit point of contact requesting to install/replace a generator.

5. Responsible Parties. The following parties are responsible for activities associated with the selection and purchase of emergency generator sets at MCBQ.

a. Project Representatives (e.g. Public Works Branch[PWB] Facilities Engineering & Acquisition Department[FEAD], Units)

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b. Natural Resources & Environmental Affairs (NREA) Branch, National Environmental Policy Act (NEPA) Coordination Section personnel

c. Natural Resources & Environmental Affairs (NREA) Branch, Air Program Manager (APM)

d. Public Works Branch (PWB), FLSS Shop 61 (Utilities Shop) generator maintenance personnel

6. Procedures (Instructions for Operational Control). The Project Representative should contact the Natural Resources and Environmental Affairs (NREA) Branch at least six months in advance of any planned purchases or modifications to emergency generators in order to request an environmental evaluation. Large capital projects may require a longer lead time. This substantial lead time is needed to ensure that National Environmental Policy Act (NEPA) documentation is completed and any necessary air permits are obtained prior to receipt of delivery or installation of a generator. Permits can take between 6 to 8 months to obtain and must be obtained before the installation of the generator. Failure to obtain the necessary air permits prior to delivery or installation of the emergency generator may result in a notice of violation being sent to the Commander or other regulatory action.

The Project Representative will commence and follow the air permit procedures (paragraph 6.a) and the NEPA procedures (paragraph 6.b) concurrently, as described below.

a. Air Permits. Virginia Department of Environmental Quality (DEQ) regulations may require that the Installation obtain a new permit or modify an existing permit prior to the start of project construction. The APM is responsible for conducting an applicability determination. If the emergency generator is determined to be subject to Virginia Air Pollution Control Regulations, then it will require a formal determination from the DEQ.

(1) The Project Representative notifies the APM of the proposed generator and provides its specifications, including but not limited to: design capacity, fuel ratings, emission rates, proposed date of installation and startup, and a proposed manufacturer and model number. (The Project Representative also notifies the NREA APM if specifications change during the time the APM is processing the new generator request.)

A. All new generators are subject to New Source Performance Standards (NSPS), Subpart IIII or Subpart JJJJ as well as National Emissions Standards for Hazardous Air Pollutants (NESHAP), Subpart ZZZZ. A synopsis of NSPS and NESHAP requirements are included in Attachment 4-1. As part of the specifications package, the Project Representative should include an EPA Emissions Certification for the proposed generator demonstrating that it meets the emissions

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requirements of NSPS, Subpart IIII or Subpart JJJJ. These emission requirements can be found in Attachment 4-2.

(2) The APM reviews the proposed generator specifications to determine and initiate any permitting action, as appropriate. (A notification from the APM is sent to the Project Representative when permitting requirements could delay the project start date.)

(3) The APM obtains a new permit or modification to an existing permit, if required; or obtains a permit exemption letter from DEQ if permitting actions are not required.

(4) The APM then provides feedback to the Project Representative on generator selection through the NEPA process (discussed in Paragraph 6.b).

b. NEPA documentation. Once contacted, the NEPA Coordination Section will send a Request for Environmental Impact Analysis (REIA) Form, Attachment 4-3, to the Project Representative.

(1) The Project Representative completes Section I of the REIA form ONLY and returns it to the NEPA Coordination Section. The Project Representative should include all pertinent information that is available for their proposal (specifications, drawings, diagrams, photographs, etc.).

(2) NEPA Coordination Section personnel will complete Sections II and III of the REIA form, and route the completed form to the NREA Branch Head for approval. A determination will be made during the review process as to what level of NEPA documentation is needed for the project. The different levels are the REIA form, the Categorical Exclusion (CE), the Environmental Assessment (EA), or the Environmental Impact Statement (EIS). The level of documentation depends on the scope of the work involved and the potential impacts.

(3) Provided additional NEPA documentation is not required, and an REIA form has been approved, it will be signed and sent back to the Project Representative. If the determination is made to use a CE or an EA, the project may not commence until final approval has been granted by the Base Commander based on recommendations by the Base's Environmental Impact Review Board (EIRB).

(4) The Project Representative should notify the NEPA Coordination Section of any changes in the scope of the project immediately in order to preserve the validity of the NEPA assessment.

c. The APM notifies the Project Representative when the appropriate permitting actions and the NEPA process are complete, resulting in permission to proceed with generator installation. The Project Representative should notify the APM at least 60 days prior to load testing of the generator. In conjunction with the load test, the APM will perform any necessary Visible Emissions Evaluations, per

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Environmental Protection Agency (EPA) methodology. The APM will also perform any required stack testing for existing or repaired generators, per (EPA) methodology. Stack testing of new generators will be performed by a MCBQ contractor, per EPA methodology.

d. The Project representative or generator owner is responsible for ensuring that prior to installation, a maintenance and operations schedule is developed and that a mechanism has been established to ensure compliance. The two most common mechanisms are the base contract with FMS Shop 61 and a maintenance contract with an outside organization. Data necessary to ensure compliance may include:

- (1) documentation of fuel deliveries with fuel certifications,
- (2) purpose of operation,
- (3) duration of operation,
- (4) maintenance logs,

(5) a monthly reconciliation of purpose and duration of operation to ensure that all operations of the generator are accounted for,

(6) a record of all normal operating parameters established during initial testing of the emergency generator,

(7) and the actual startup date of the emergency generator. This information is submitted to the APM on a monthly basis as described in the MCB Quantico Environmental Standard Operating Procedure 5, Emergency Generator, Operation & Maintenance.

7. Inspection and Corrective Action. Not applicable.

8. Internal Communication. See paragraph 6.

9. Training / Awareness

a. The NREA Branch Training Coordinator provides appropriate training to the following personnel on all the provisions of this ESOP: Project Representatives for large and small projects, generator maintenance personnel, the APM, and NEPA personnel.

b. The APM provides additional guidance to appropriate personnel regarding this procedure. Guidance may include, but is not limited to, clarification of the information process, generator selection, and recordkeeping requirements.

10. Emergency Preparedness and Response. Not applicable.

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11. References and Related Documents

a. Virginia Air Pollution Control Regulations (9 VAC 5-40-50 and 10 VAC 5-20-160)

b. MCBO 5090.1B, Environmental Impact Review Board dtd 15 Feb 06

c. MCB Quantico Title V Air Permit (facility ID# NVRO70267), effective 09/02/03

d. MCB Quantico Minor New Source Review permit (facility ID# NVRO70267), effective 01/08/2010

e. MCB Quantico Request for Environmental Impact Analysis, Attachment 4-1

f. MCB Quantico Environmental Standard Operating Procedure 5, Emergency Generators Operation & Maintenance of Nov 07

12. Document Revision History. The following provides a history of revisions of this ESOP:

Revision Number	Date	Revision Made By	Section	Page	Summary of Change and Reason	Initials
2	4/1/07	Andrew Gayne	Para 4,6	1,2, & 3	New APM clarifies definitions and procedures	AG
3	11/21/07	Andrew Gayne	All	All	Modified to include requirements for NSPS generators	AG
4	11/13/12	Andrew McClelland	All	All	Updated with reference documents attached.	AJM
5	7/03/14	Dave Grose	footer	1	Added footnote and updated para 13.b.	JDG

13. Document Owner. This document has been reviewed and approved by the document owner. Any revisions or future updates to the procedure will be completed by the document owner as needed.

a. Document Owner. Air Program Manager, NREA Branch

b. Document Approval. Chair, E²MS Implementation Team,

Summary of National Emission Standard for Hazardous Air
Pollutants for Reciprocating Internal Combustion
Engines,
Subpart ZZZZ

Marine Corps Base, Quantico (MCBQ) is subject to the National Emission Standard for Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating Internal Combustion Engines (RICE) (40 CFR Part 63, Subpart ZZZZ). The base is an area source for hazardous air pollutants (HAPs); therefore, this summary is only applicable to an area source since major HAP sources are subject to different requirements. Most of the stationary RICE at MCBQ are operated in an emergency situation (in addition to the required preventive testing and maintenance, and minimum allowance for non-emergency situations). However, there are some engines operated only in a non-emergency capacity, such as at the military operations in urban terrain (MOUT) sites.

Subject Units at MCBQ

Stationary RICE includes existing compression ignition (CI) and spark ignition (SI) engines. Applicability of a RICE unit hinges on the commencement date of construction or reconstruction. It is important to note that the definition of construction in NESHAP ZZZZ differs to the definition in the New Source Performance Standards (NSPS) IIII (for CI RICE) and JJJJ (for SI RICE) (see Critical Definitions).

Critical Definitions

The following definitions are for clarification purposes and some are taken directly from the NESHAP ZZZZ. Instead of listing them in alphabetical order, they are grouped together where possible, as indicated by a short dash.

Emergency stationary RICE: an engine whose operation is limited to emergency situations (i.e., the normal source of electric power is lost), for operation in non-emergency situations (e.g., storm avoidance) for 50 hours per year, and for the required preventive maintenance/readiness testing (not to exceed 100 hours per year). Any other use is prohibited and the engine will not be considered an emergency engine and will need to meet all requirements for non-emergency engines.

Non-Emergency stationary RICE: an engine that runs when the normal source of electrical power is available. This includes uses such to provide additional light during a construction project or at a security gate, and peak shaving.

Black start engine: an engine whose only purpose is to start up a combustion turbine. (Black start is the process of restoring a power station to operation without relying on the external electric power transmission network.

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Non-emergency non-black start RICE: for example, this could be an engine light set used in a non-emergency capacity or an engine used at a MOUT site.

Residential emergency stationary RICE: used in residential establishments such as homes or apartment buildings.

Commercial emergency stationary RICE: 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 RICE: 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 stations, and fire stations.

Existing source: constructed or reconstructed before June 12, 2006.

New source: constructed on or after June 12, 2006.

Reconstructed source: if it meets the definition of reconstruction in §63.2 and reconstruction was commenced on or after June 12, 2006.

Construction under MACT ZZZZ: on-site fabrication, erection, or installation of an affected source - i.e., actually starting construction, not the manufacture date. Construction does not include the removal of all equipment comprising an affected source from an existing location and reinstallation of such equipment at a new location (this would be reconstruction if it satisfies the criteria in §63.2).

Construction under NSPS IIII and JJJJ (60.4200(a) and 60.4230(a) respectively): the date the engine is ordered by the owner or operator. However, this date is also used in conjunction with the date of manufacture.

Compliance Dates

- Existing stationary CI RICE: May 3, 2013
- Existing stationary SI RICE: Oct. 19, 2013
- New, reconstructed stationary RICE started up before Jan. 18, 2008: Jan. 18, 2008

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- New, reconstructed stationary RICE started up after Jan. 18, 2008: upon startup

Requirements for New or Reconstructed Stationary CI or SI RICE

New or reconstructed stationary RICE of all sizes must comply with 40 CFR Part 60 NSPS Subpart IIII or JJJJ for CI or SI engines, respectively and meet the appropriate "Tier" level. For further information, refer to the MCBQ summaries for these NSPS regulations.

Requirements for Existing Stationary CI or SI RICE: EMERGENCY Engines

In general, existing requirements for emergency stationary RICE at area sources are less stringent than the requirements for new RICE as per Subpart IIII or JJJJ. Virtually the same requirements apply to existing emergency engines regardless of the engine size; however, the regulations are categorized by engines less than or equal to 500 hp and engines greater than 500 hp. Existing emergency engines do not require performance tests nor do they have any notification requirements.

The operating and reporting/recordkeeping requirements are as follows:

Operating Limitations (§63.6603 Table 2d)

Requirement (Except During Startup)	Requirement During Startup
a. Change oil and filter every 500 hours of operation or annually, whichever comes first; ¹ and b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first; and	Minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply

¹per §63.6625(i) and (j), there is an option of utilizing an oil analysis program to extend the oil change requirement (if

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this is chosen, see recordkeeping requirement). The oil analysis must be performed at the same frequency specified for changing the oil.

Based upon an EPA guidance memorandum (9 August 2010), if an existing emergency engine can be classified as either "residential, commercial, or institutional" (see Critical Definitions), then an exemption from the above maintenance requirements can be applied. However, to demonstrate that the engine is operated as an emergency unit, the owner/operator must still maintain operational records to show that the unit was operated for only emergency reasons- so this "exemption" from MACT ZZZZ is not a complete exemption.

Performance Tests (§63.6612)

There are no regulatory requirements for performance testing for existing emergency engines.

Reporting/Recordkeeping (§63.6655)

Keep records of the following:

- Occurrence and duration of each malfunction of the unit;
- Records of corrective actions taken during periods of malfunction to minimize emissions;
- If operational limits apply, then maintain records of maintenance conducted to demonstrate the engine was operated and maintained in accordance with the manufacturer specifications or owner's maintenance plan;
- Records of the operational hours, recorded by a required non-resettable hour meter.

Notably:

- Record each time the engine operates: both the emergency operations, including what classified the operation as an emergency, and the non-emergency operations.
- If the engines are operated for demand response (DR), then the owner or operator must keep records of:
 - o Notification of the emergency situation, and
 - o Time the engine was operated as part of DR.

Records must be readily accessible (in hard copy or electronic form) for at least five years after the date of each occurrence, measurement, maintenance, corrective action, report, or record.

Reference the footnote to Table 2d: Participation in an oil management program may be used as an alternative to the requirement to change the oil every 500 hours or annually, whichever comes first. However, this program must be part of the maintenance plan, and results of the

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analysis and subsequent oil change records must be retained (§63.6625 (i) and (j)).

Monitoring/Operation/Maintenance (§63.6625)

a) Operate and maintain the engine according to the manufacturer's instructions.

That is, perform scheduled checks and services to ensure good operating conditions in accordance with the manufacturers' standards and warranties. If such specifications do not exist, then prepare and follow a preventive maintenance plan for good air pollution control practices to minimize emissions.

b) Install a non-resettable hour meter, if one is not already installed.

c) 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.

Hours of Operation (§63.6640.f)

Emergency Operation -

a) There is no restriction on the engine use in an emergency situation (unless dictated by the permit). However, records must be retained for the duration of operation and the reason the engine was in operation during that time (see Recordkeeping section).

b) The engine may not be operated for more than 30 minutes prior to the time when the emergency condition is expected to occur, and the engine must be terminated immediately after the facility is notified that the emergency condition is no longer imminent.

Maintenance and Testing Operation -

c) Operate the engine for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by the federal, state or local government, the manufacturer, the vendor, or the insurance company associated with the engine.

d) Maintenance checks and readiness testing of such units are limited to 100 hours per year unless records indicate that more time is allowed. Petition the Administrator for approval of additional

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hours for maintenance checks and readiness testing.

- e) Records must be maintained to document the reason for operation to ensure the 100 hours per year limit for maintenance/testing is not exceeded.

Operation in Non-emergency Situations -

- f) Operate the engine up to 50 hours per year in non-emergency situations, although these 50 hours are counted towards the 100 hours per year limit for maintenance/testing. The 50 hours per year for non-emergency situations cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid.
- g) Operate the engine for a maximum of 15 hours per year as part of a DR program if the regional transmission organization (or equivalent authority) and transmission operator has determined there are emergency conditions that could lead to a potential electrical blackout. These 15 hours are counted as part of the 50 hours of operation per year provided for non-emergency situations because of the financial arrangement involved with the DR. Notably, a proposed regulation is pending (as of May 2012), whereby EPA plans to change the 15 hours to 60 hours.

Operation of an applicable emergency RICE other than for emergency operation, maintenance and testing, and operation in non-emergency situations as allowed up to 50 hours per year is prohibited without informing the MCBQ Air Program Manager in advance. Changing operations from the above would categorize the unit as non-emergency under Subpart ZZZZ, which has different requirements, as noted below.

Requirements for Existing Stationary CI or SI RICE: NON-EMERGENCY
Engines

Currently, MCBQ is aware of non-emergency units that are all less than 100 hp and none are landfill or digester gas-fired RICE. Therefore, only those applicable requirements that are different to those for an emergency unit described previously are summarized for MCBQ. Note: for non-emergency units larger than 300 hp, there are additional requirements.

The EPA guidance memorandum (August 2010) pertaining to an exemption from maintenance requirements does not apply to non-emergency engines. Also, there are no limits on hours of operation or requirement to install/use a non-resettable hour meter.

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Operating Limitations (§63.6603 Table 2d)

<p>Non-emergency, non-black start CI stationary RICE ≤ 300 bhp.</p>	<p>a. Change oil and filter every 1,000 hours of operation or annually, whichever comes first *,1 b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary</p>
<p>Non-emergency, non-black start 2SLB stationary RICE.</p>	<p>a. Change oil and filter every 4,320 hours of operation or annually, whichever comes first * b. Inspect spark plugs every 4,320 hours of operation or annually, whichever comes first c. Inspect all hoses and belts every 4,320 hours of operation or annually, whichever comes first, and replace as necessary</p>
<p>Non-emergency, non-black start 4SLB stationary RICE ≤ 500 bhp.</p>	<p>a. Change oil and filter every 1,440 hours of operation or annually, whichever comes first * b. Inspect spark plugs every 1,440 hours of operation or annually, whichever comes first c. Inspect all hoses and belts every 1,440 hours of operation or annually, whichever comes first, and replace as necessary</p>
<p>Non-emergency, non-black start 4SRB stationary RICE ≤ 500 bhp.</p>	<p>a. Change oil and filter every 1,440 hours of operation or annually, whichever comes first * b. Inspect spark plugs every 1,440 hours of operation or annually, whichever comes</p>

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	first c. Inspect all hoses and belts every 1,440 hours of operation or annually, whichever comes first, and replace as necessary
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* Sources have the option to utilize an oil analysis program as described in §63.6625(i) to extend the specified oil change timeframe. The oil analysis must be performed at the same frequency specified for changing the oil.

1 This differs from an emergency engine, which was 500 hours of operation for such changes.

2 Table 2d also requires that "during periods of startup you must minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply."

Requirements of New Source Performance Standards for Stationary Compression Ignition Internal Combustion Engines (40 CFR 60, Subpart IIII)

The Natural Resources and Environmental Affairs (NREA) Branch Air Program has determined that your emergency generator is subject to the requirements of NSPS, 40 CFR 60 Subpart IIII.

There are several requirements for NSPS subject emergency generators that you should be aware of before the installation of a new emergency generator:

- The emergency generator MUST meet the emission requirements established under 40 CFR 60, Subpart IIII. These requirements are based on engine size and year of manufacture. If you have any questions concerning what is the applicable emission requirement for your emergency generator, please consult with the Air Program Manager.
- You must receive a manufacturer's certification that your emergency generator meets the applicable emission requirements. This certification must be kept on file for the useful life of the emergency generator. If you do not receive a manufacturer's certification, you will be responsible for initial performance testing. Any performance testing must be conducted in consultation with the Air Program Manager.
- Your emergency generator must be equipped with an hour meter. This hour meter must be readily accessible to both unit personnel and NREA staff. The Air Program Manager should be provided with a key to any lock placed on the emergency generator.

Most importantly, once your emergency generator is installed there are several major requirements under 40 CFR 60 Subpart IIII you should be aware of:

- You must maintain, onsite, a record of all maintenance activities. This should include any schedule preventative maintenance (PM) as well as any and all repairs made to the emergency generator. If your emergency generator is to be maintained by personnel outside of your unit (i.e. FLSS, an outside contractor), you are responsible for ensuring that this documentation is completed and kept onsite at all times.
- You must document whenever the emergency generator operates. This must include time of operation, duration of operation, and a specific purpose (maintenance, power grid down, etc). This record should be kept up-to-date at all times and must be submitted to the Air Program Manager at the beginning of every month.
- In a given year, your emergency generator should not have more than 100 hours of operation as a result of PM operations.

These requirements are federally enforceable. Failure to comply with any of these requirements may result in enforcement action against The Command.

Requirements of New Source Performance Standards for
Stationary Compression Ignition Internal Combustion
Engines (40 CFR 60, Subpart IIII)

Your emergency generator may be subject to other regulations. You should consult with the Air Program Manager to determine if there are any additional requirements for the operation of your emergency generator.

NREA Air Program can be contacted at 432-0529 or
andrew.mcclelland@usmc.mil

Requirements of New Source Performance Standards for Stationary Spark Ignition Internal Combustion Engines (40 CFR 60, Subpart JJJJ)

What units are subject? (40 CFR 60.4230)

- All stationary spark ignition internal combustion engines (SI ICE), where construction commences after June 12, 2006 and the engine was manufactured after the applicable date in Attachment A. For the purposes of this regulation, the construction date is the date the engine was ordered from the manufacturer.
- All modified or reconstructed stationary SI ICE, where modification or reconstruction commences after June 12, 2006.

Any SI ICE being tested at an engine test cell/stand is not subject to this regulation. The requirements of this regulation also do not apply to any temporary engines that are installed for less than one (1) year and are properly certified to meet the applicable standards for nonroad engines.

Emissions Standards (40 CFR 60.4233)

Attachment A details the emission standards for stationary SI ICE constructed, modified, or reconstructed after June 12, 2006. However, there are different emission factors for modified or reconstructed natural gas and lean burn liquefied petroleum gasoline (LPG) engines greater than 130 hp. These emission factors and applicability dates can be found in 40 CFR 60.4233(f)(4).

Fuel Requirements (40 CFR 60.4235)

Gasoline supplied for engines must meet the sulfur content requirements of 40 CFR 80.195. The average sulfur content for a refiner or importer shall not exceed 30 parts per million (ppm), with a maximum sulfur content of 80 ppm.

Monitoring Requirements for Emergency Stationary SI ICE (40 CFR 60.4237)

Non-resettable hour meters are only required on a stationary emergency SI ICE if:

- The emergency generator built after July 1, 2010 and greater than or equal to 500 HP does not meet requirements subject to non-emergency engines;
- The emergency generator built after January 1, 2011 and greater than or equal to 130 HP and less than 500 HP does not meet requirements subject to non-emergency engines; or

Requirements of New Source Performance Standards for Stationary Spark Ignition Internal Combustion Engines (40 CFR 60, Subpart JJJJ)

- The emergency generator built after July 1, 2008 and less than 130 HP does not meet requirements subject to non-emergency engines.

If an emergency generator requires a non-resettable hour meter, a record of hours of operation must be maintained. The purpose and amount of emergency and non-emergency hours of operation must be maintained.

Compliance Requirements (40 CFR 60.4243)

Certification of Engines

All new gasoline and rich burn LPG engines must be certified by the manufacturer to meet the applicable emission requirements in Attachment A. There is no exemption for non-certified gasoline or rich burn LPG engines. All new gasoline or rich burn LPG engines manufactured after the applicable date MUST be certified.

For other new engines, the owner can either buy an engine certified by the manufacturer to meet the applicable emission requirements or conduct performance tests as required by 40 CFR 60.4243(b)(2). Table 1 details the required performance testing. Performance test requirements are given at 40 CFR 60.4244.

<25 hp	No initial performance testing required.
>25 hp and ≤500 hp	Initial performance testing within the first year of operation
>500 hp	Initial performance testing within the first year of operation and subsequent testing every 3 years or 8,760 hours of operation, whichever occurs first

Generally, the emission certification requirements for modified or reconstructed engines are the same as for new engines. However, there are different emission factors for natural gas and lean burn LPG engines greater than 130 hp. These emission factors and applicability dates can be found in 40 CFR 60.4233(f)(4).

Operation of Engines

If the engine is not operated or maintained in accordance with the manufacturer's specifications (i.e., using the engine for a purpose other than it was intended for; not performing, at a minimum, the recommended maintenance, etc), the engine is considered to not be certified and must undergo performance testing as specified in 40 CFR 60.4243(a)(2). The required timetable of performance testing of

Requirements of New Source Performance Standards for
Stationary Spark Ignition Internal Combustion Engines
(40 CFR 60, Subpart JJJJ)

engines not operated in accordance with manufacturer recommendations is detailed in Table 2.

<100 hp	No performance testing needed
>100 hp and ≤500 hp	Initial performance testing within the first year of operation
>500 hp	Initial performance testing within the first year of operation and subsequent testing every 3 years or 8,760 hours of operation, whichever is first

A maintenance plan and records of maintenance conducted must be kept on file. If records are not kept on file, the engine is assumed to not be operated in accordance with the manufacturer's recommendations, and must undergo performance testing as specified in Table 2.

Readiness Testing for Emergency Units

Owners are allowed up to 100 hours of maintenance checks and readiness testing on engines, provided the tests are recommended by Federal, State or local government, the manufacturer, the vendor, or an insurance company associated with the engine. There is no limit on the number of hours of operation of the engine for emergency purposes.

Alternative Fuels

Owners of natural gas-fired stationary SI ICE may use propane as an emergency fuel for a maximum of 100 hours without having to certify the emissions of the engine when using propane. The owner must keep a record of when propane is used as an emergency fuel. Any usage above 100 hours will require that the engine be certified (i.e., a performance test will be required) to meet the applicable emission standards while using propane unless it is already certified to those standards.

Notifications, Recordkeeping, Reporting (40 CFR 60.4245)

Maintenance and Engine Emission Certification Records

Owners and operators of SI ICE must keep the following records on file:

- A record of all maintenance conducted on the stationary SI ICE; and
- Documentation from the manufacturer that the engine is certified to the applicable emission standards; or
- Documentation that the engine meets the applicable emission standard if the engine is not a certified engine, or operated in a non-certified manner.

Requirements of New Source Performance Standards for
Stationary Spark Ignition Internal Combustion Engines
(40 CFR 60, Subpart JJJJ)

Hours of Operation

If a stationary emergency SI ICE must have a non-resettable hour meter as required in 40 CFR 60.4237, then a record of the hours of operation, the purpose of the operation (emergency, non-emergency), and what classified the operation as emergency (if applicable) must be maintained.

Initial Notifications

Initial Notifications are only needed for engines greater than or equal to 500 hp that have not been certified by the manufacturer to meet the applicable emission standard. The initial notification must meet the requirements of 40 CFR 60.7(a)(1) and include:

- Name and address of owner;
- Physical address of affected source;
- Engine make, model, engine family, serial number, model year, maximum engine power, and engine displacement;
- Emissions control equipment; and
- Fuel used.

Performance Testing

If an owner is required to conduct performance testing as specified in Table 1 or Table 2, a copy of each performance test must be submitted within 60 days of completion of the test.

Request for Environmental Impact Analysis (REIA) Form

REQUEST FOR ENVIRONMENTAL IMPACT ANALYSIS		NEPA PROJECT NUMBER:
SECTION I – PROPONENT INFORMATION		
1. TO	2. FROM	3. TELEPHONE () -
4. TITLE OF PROPOSED ACTION, PROJECT TIME LINE		4a. PROPONENT PROJECT NUMBER
5. PURPOSE AND NEED FOR ACTION (Identify requirement/reason for action)		
6. DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVE (Provide sufficient details for evaluation of the total action. Describe the proposed action and identify location. Attach site plan. Identify how much soil/area will be disturbed, whether or not new air emission source or modification of existing will be required i.e. boilers, generators.) Use second page for additional information.		
7. PROPONENT	8. SIGNATURE	9. DATE
SECTION II – PRELIMINARY ENVIRONMENTAL SURVEY		
Check appropriate box describing potential environmental effects including cumulative effects – explain yes responses in remarks	YES	NO
10. LAND USE (Total Acreage, Clearing Requirements, etc.)	<input type="checkbox"/>	<input type="checkbox"/>
11. AIR QUALITY (Air Emissions, attainment status, state implementation plan, dust, boilers, generators, etc.)	<input type="checkbox"/>	<input type="checkbox"/>
12. WATER RESOURCES (Quality, quantity, wetlands, floodplain, buffer zone, surface water, ground water, etc.)	<input type="checkbox"/>	<input type="checkbox"/>
13. CULTURAL RESOURCES (Native American sites, archaeological, historic buildings/district etc.)	<input type="checkbox"/>	<input type="checkbox"/>
14. THREATENED & ENDANGERED SPECIES	<input type="checkbox"/>	<input type="checkbox"/>
15. SAFETY AND OCCUPATIONAL HEALTH (Asbestos, radiation, chemical exposure, lead, solvents, explosive safety quantity-distance, bird/wildlife aircraft hazard, etc.)	<input type="checkbox"/>	<input type="checkbox"/>
16. HAZARDOUS MATERIALS/WASTE (Use, storage, generation, new stream, solid waste, installation restoration, etc.)	<input type="checkbox"/>	<input type="checkbox"/>
17. AIR INSTALLATION COMPATIBLE USE ZONE/LAND USE (Noise, accident potential, encroachment, etc.)	<input type="checkbox"/>	<input type="checkbox"/>
18. SOCIOECONOMIC	<input type="checkbox"/>	<input type="checkbox"/>
19. OTHER	<input type="checkbox"/>	<input type="checkbox"/>
SECTION III – ENVIRONMENTAL ANALYSIS DETERMINATION		
20. <input type="checkbox"/> PROPOSED ACTION QUALIFIES FOR A CATEGORICAL EXCLUSION (CATEX): # OR,		
21. <input type="checkbox"/> PROPOSED ACTION QUALIFIES FOR A CATEGORICAL EXCLUSION (CATEX), WITH FURTHER REVIEW REQUIRED.		
22. <input type="checkbox"/> PROPOSED ACTION DOES NOT QUALIFY FOR A CATEX; FURTHER ENVIRONMENTAL ANALYSIS IS REQUIRED		
NEPA SECTION REVIEW	NREA SIGNATURE	DATE

Request for Environmental Impact Analysis (REIA) Form