United States Environmental Protection Agency
General Permit for New or Modified Minor Sources of Air Pollution in Indian Country

http://www.epa.gov/air/tribal/tribalnsr.html

General Air Quality Permit for New or Modified True Minor Source Spark Ignition Engines

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Version 1.0

Information about this General Permit:

Applicability
Pursuant to the provisions of the Clean Air Act (CAA), Subchapter I, part D and 40 CFR part 49, subpart C, this permit authorizes the construction or modification, and operation of each stationary source of spark ignition (SI) reciprocating internal combustion engines for which a reviewing authority issues an Approval of the Request for Coverage (permitted source).

Eligibility
To be eligible for coverage under this general permit, the permitted source must qualify as a true minor source as defined in 40 CFR 49.152.

Request for Coverage
Requirements for submitting a Request for Coverage are contained in Section 7 of this general permit.

Incorporation of Documents
The information contained in each reviewing authority's Approval of the Request of Coverage is hereby incorporated into this general permit.

Termination
Section 6 of this general permit addresses a reviewing authority's ability to revise, revoke and reissue, or terminate this general permit. It also addresses the reviewing authority's ability to terminate an individual permitted source's Approval of the Request for Coverage under this general permit.

Definitions
The terms used herein shall have the meaning defined in 40 CFR 49.152 and in Attachment B of this permit. If a term is not defined, it shall be interpreted in accordance with normal business use.

Permit Terms and Conditions

The following applies to each permittee and permitted source with respect to only the affected emissions units and any associated air pollution control equipment listed in that permitted source's Approval of the Request for Coverage.

Section 1 – General Provisions

1. *Construction and Operation*
   The permittee shall construct or modify, and operate the affected emission units and any associated air pollution control equipment in compliance with this permit and all other applicable federal air quality regulations; and in a manner consistent with the Request for Coverage.

2. *Location*
   This permit only authorizes the permittee to construct or modify, and operate the permitted source in the location listed in the reviewing authority's Approval of the Request for Coverage for that permitted source.

3. *Liability*
   This permit does not release the permittee from any liability for compliance with other applicable federal and tribal environmental laws and regulations, including the CAA.

4. *Severability*
   The provisions of this permit are severable. If any portion of this permit is held invalid, the remaining terms and conditions of this permit shall remain valid and in force.

5. *Compliance*
   The permittee must comply with all provisions of this permit, including emission limitations that apply to the affected emissions units at the permitted source. Noncompliance with any permit provision is a violation of the permit and may constitute a violation of the CAA; is grounds for an enforcement action; and is grounds for the reviewing authority to revoke the Approval of the Request for Coverage and terminate the permitted source's coverage under this general permit.

6. *National Ambient Air Quality Standards (NAAQS)/Prevention of Significant Deterioration (PSD) Protection*
   The permitted source must not cause or contribute to a NAAQS violation and, in an attainment area, must not cause or contribute to a PSD increment violation.

7. *Unavailable Defense*
   It is not a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the provisions of this permit.

8. *Property Rights*
   The permit does not convey any property rights of any sort or any exclusive privilege.

9. *Information Requests*
   You, as the permittee, shall furnish to the reviewing authority, within a reasonable time, any information that the reviewing authority may request in writing to determine whether cause exists for revising, revoking and reissuing, or terminating the permit or to determine compliance with the permit. For any such information claimed to be confidential, the permittee must submit a claim of confidentiality in accordance with 40 CFR part 2 subpart B.

10. *Inspection and Entry*
    Upon presentation of proper credentials, the permittee must allow a representative of the reviewing authority to:

a. Enter upon the premises where a source is located or emissions-related activity is conducted or where records are required to be kept under the conditions of the permit;
b. Have access to and copy, at reasonable times, any records that are required to be kept under the conditions of the permit;
c. Inspect, during normal business hours or while the source is in operation, any facilities, equipment (including monitoring and air pollution control equipment), practices or operations regulated or required under the permit;
d. Sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with the permit or other applicable requirements; and
e. Record any inspection by use of written, electronic, magnetic and photographic media.

11. *Posting of Coverage*
Sections 1 through 6 of this general permit, and the most current Approval of the Request for Coverage for the permitted source, must be posted prominently at the facility, and each affected emissions unit and any associated air pollution control equipment must be labeled with the identification number listed in the Approval of the Request for Coverage for that permitted source.

12. *Duty to Obtain Source-Specific Permit*
If the reviewing authority intends to terminate a permitted source's coverage under this general permit for cause as provided in Section 6 of this general permit, then the permittee shall apply for and obtain a source-specific permit under 40 CFR 49.155 as required by the reviewing authority.

13. *Credible Evidence*
For the purpose of establishing whether the permittee violated or is in violation of any requirement of this permit, nothing shall preclude the use, including the exclusive use, of any credible evidence or information relevant to whether a source would have been in compliance with applicable requirements if the permittee had performed the appropriate performance or compliance test or procedure.

14. *Setbacks*
The permitted source shall not locate less than 150 feet from the nearest property boundary and not less than 1,000 feet from the nearest residence.

Section 2: Emission Limitations and Standards

15. The permittee shall maintain and operate each affected emission unit, including any associated air pollution control equipment, in a manner consistent with good air pollution control practices for minimizing emissions of NSR regulated pollutants and considering the manufacturer's recommended operating procedures at all times, including periods of startup, shutdown, maintenance and malfunction. The reviewing authority will determine whether the permittee is using acceptable operating and maintenance procedures based on information available to the reviewing authority which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the permitted source.

16. The combined maximum engine power of all non-emergency SI engines at the permitted source shall be no greater than 1750 horsepower (hp).

17. The combined maximum engine power of all emergency engines at the permitted source shall be no greater than 800 hp.

18. Each affected non-emergency SI engine, excluding nonroad mobile engines, shall comply with the following limitations and standards:

a. The engine shall be certified by the manufacturer, unless stated otherwise, to the following standards, for all pollutants, for the same model year and maximum engine power.

Type of Engine	Maximum Engine Power Rating	Emission Standard(s)
SI	≤25 hp	40 CFR part 1054
Gasoline or rich burn liquified petroleum gas (LPG)	≥ 500 hp	40 CFR part 1048
Gasoline or rich burn LPG	25<hp<500 hp	40 CFR part 1048 (if less than 40 hp and less than 1,000 cc may instead meet part 90 and part 1054, as applicable).
SI engines (except gasoline and rich burn LPG)	25<hp<100	Standards for field testing in 40 CFR 1048.101(c). Certification to these standards is not required.
SI engines (except gasoline and rich burn LPG)	≥100 hp	Standards in Table 1 to 40 CFR 60 Subpart JJJJ as follows: • Engines <500 hp shall meet the standards for engines manufactured on or after January 1, 2011; and • Engines ≥ 500 hp shall meet the standards for engines manufactured on or after July 1, 2010. Certification to these standards is not required.

19. The permittee must operate and maintain each engine certified by the manufacturer, and any associated control device, according to the manufacturer's emission-related written instructions.

20. Each natural gas-fired engine may be operated using propane for a maximum of 100 hours per year as an alternative fuel solely during emergency operations.

21. Each emergency engine shall:
    a. Be equipped with a non-resettable hour meter;
    b. If using fuel oil, use diesel or biodiesel containing no more than 15 ppm (0.0015 percent) sulfur;
    c. Meet the following certification requirements for compression ignition emergency engines:
        i. For model year 2006 and later engines (except for model year 2008 and later engines rated less than 37 kW), the engine shall be certified by the manufacturer to the standards in 40 CFR part 89.
        ii. For model year 2008 and later engines rated less than 37 kW, the engine shall be certified by the manufacturer to the applicable standards in 40 CFR part 1039.
    d. Meet the following requirements for SI emergency engines manufactured on or after January 1, 2009:
        i. Gasoline and rich burn LPG emergency engines greater than 50 hp and less than 130 hp shall be certified to the Phase I standards in 40 CFR 90.103;
        ii. Gasoline and rich burn LPG emergency engines greater than or equal to 130 hp shall be certified to the standards in 40 CFR 1048; and
        iii. All other SI emergency engines greater than 25 hp shall meet the standards for emergency engines in Table 1 to 40 CFR Subpart JJJJ.
    e. If not required to meet the standards in Conditions 21.c or d:
        i. Follow the manufacturer's emission-related operation and maintenance instructions 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;
        ii. Change oil and filter and inspect every hose and belt every 500 hours of operation or annually,

whichever comes first; and

iii. Inspect air cleaner or spark plugs, as applicable, every 1,000 hours of operation, or annually, whichever comes first.

Section 3: Monitoring and Testing Requirements

22. The permittee shall monitor fuel use for each engine on a monthly basis.

23. *Air-to-Fuel Ratio Controller*
For each engine equipped with an air-to-fuel (AFR) ratio controller, the AFR controller must be maintained and operated appropriately in order to ensure proper operation of the engine and control device to minimize emissions at all times.

24. *Engines Not Certified by the Manufacturer*
For each engine required to meet the standards in Condition 18.a or Condition 21.d.iii, but that is not certified by the manufacturer to the applicable standards, and is not required to be certified by the manufacturer, the permittee shall:
    a. For an engine greater than 25 hp and less than or equal to 500 hp, conduct an initial performance test as follows:
        i. Within 60 days after achieving the maximum production rate at which the permitted source will operate, but not later than 180 days after the first day of operation after issuance of the Approval of the Request for Coverage;
        ii. The test shall verify compliance with the applicable emission limitations in Conditions 18.a and 21.d.iii.;
        iii. According to a test plan approved by the reviewing authority;
        iv. While the permitted source is operating under typical operating conditions;
        v. With at least three test runs, each of at least 1 hour duration;
        vi. Within 10 percent of peak load for the engine;
        vii. Using test methods from 40 CFR part 60, Appendix A unless alternative methods are approved by the reviewing authority in writing in advance of the test; and
        viii. Simultaneously for carbon monoxide (CO) and nitrogen oxides (NO_x) whenever either one needs to be tested.
    b. For an engine greater than 500 hp, conduct an initial performance test and subsequent performance testing every 8,760 hours of operation or 3 years, whichever comes first as follows:
        i. The performance tests shall verify compliance with the applicable emission limitations in Conditions 18.a and 21.d.iii.
        ii. The performance tests shall be performed according to Condition 24.a.iii through viii.

Section 4: Recordkeeping Requirements

25. The permittee shall maintain onsite all records required to be kept by this permit for at least five years from the date of origin, unless otherwise stated.

26. The permittee shall maintain onsite records of propane use in all natural gas-fired engines.

27. The permit application and all documentation supporting that application shall be maintained by the permittee for the duration of time the affected emissions units are covered under this permit.

28. For each engine, the permittee shall maintain records of:
    a. The amount of fuel used each month for each engine (in gallons or million standard cubic feet, as appropriate);
    b. For each engine required to be certified or using certification, documentation from the manufacturer that each engine is certified to the applicable standards;

c. The maintenance plan for each engine;
d. All maintenance activities conducted for each engine on a monthly basis; and
e. For emergency engines, maintain a log of the hours of operation, including the date, time, duration, and reason(s) for use.

29. The results of each performance test conducted pursuant to Condition 24 shall be recorded. At a minimum, the permittee shall maintain records of:
    a. The date of each test;
    b. Each test plan;
    c. Any documentation required to approve an alternate test method;
    d. Conditions during the test, including the engine power rating;
    e. The results of each test; and
    f. The name of the company or entity conducting the analysis.

Section 5: Notification and Reporting Requirements

30. *Notification of Construction or Modification, and Operations*
    The permittee shall submit a written or electronic notice to the reviewing authority within 30 days from when the permittee begins actual construction or modification, and when the permittee begins operations or resumes operation.

31. *Notification of Change in Ownership*
    If the permitted source changes ownership, then the permittee must submit a written or electronic notice to the reviewing authority within 90 days after the change in ownership is effective. In the report, the permittee must provide the reviewing authority a written agreement containing a specific date for transfer of ownership, and an effective date on which the new owner assumes partial and/ or full coverage and liability under this permit. The submittal must identify the previous owner, and update the name, street address, mailing address, contact information, and any other information about the source if it would change as a result of the change of ownership. The permittee shall ensure that the permitted source remains in compliance with the general permit during any such transfer of ownership.

32. *Notification of Closure*
    The permittee must submit a report of any permanent or indefinite closure to the reviewing authority in writing within 90 days after the cessation of all operations at the permitted source. The notification must identify the owner, the current location, and the last operating location of the permitted source. It is not necessary to submit a report of closure for regular, seasonal closures.

33. *Annual Reports*
    The permittee shall submit an annual report on or before March 15 of each year to the reviewing authority. The annual report shall cover the period from January 1 to December 31 of the previous year and shall include:
    a. An evaluation of the permitted source's compliance status with the requirements of Section 2 during the calendar year;
    b. Summaries of the required monitoring, testing and recordkeeping in Sections 3 and 4; and
    c. Summaries of deviation reports submitted pursuant to Condition 34.

34. *Deviation Reports*
    The permittee shall promptly report to the reviewing authority any deviations from permit requirements including deviations attributable to upset conditions. Deviation reports shall include:
    a. Identity of the affected emissions unit where the deviation occurred.
    b. Nature of the deviation;
    c. Length of time of the deviation;

d. Probable cause of the deviation; and
e. Any corrective actions or preventive measures taken as a result of the deviation to minimize emissions from the deviation and to prevent future deviations.
f. For the purposes of this permit, *promptly* means within 30 days after the month in which the permittee discovered the deviation.

35. *Performance Test Reports*
The permittee shall submit a test report to the reviewing authority within 45 days after the completion of any required performance test. At a minimum, the test report shall include:
a. A description of the emissions unit and sampling location(s);
b. The time and date of each test;
c. A summary of test results, reported in units consistent with the applicable standard;
d. A description of the test methods and quality assurance procedures used;
e. A summary of any deviations from the proposed test plan and justification for why the deviation(s) was necessary;
f. The amount of fuel burned, raw material consumed, and product produced during each test run;
g. Operating parameters of the source and control equipment during each test run;
h. Sample calculations of equations used to determine test results in the appropriate units; and
i. The name of the company or entity performing the analysis.

36. *Reporting and Notification Address*
The permittee shall send all required reports to the reviewing authority at the mailing address specified in the Approval of the Request for Coverage.

37. *Signature Verifying Truth, Accuracy, and Completeness*
All reports required by this permit shall be signed by a responsible official as to the truth, accuracy, and completeness of the information. The report must state that, based on information and belief formed after reasonable inquiry, the statements and information are true, accurate, and complete. If the permittee discovers that any reports or notification submitted to the reviewing authority contain false, inaccurate, or incomplete information, the permittee shall notify the reviewing authority immediately and correct or amend the report as soon as is practicable.

Section 6: Changes to this General Permit

38. *Revising, Reopening, Revoking and Reissuing, or Terminating for Cause*
The permit may be revised, reopened, revoked and reissued or terminated for cause. The filing of a request by you, the permittee, for a permit revision, revocation and re-issuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition. This provision also applies to the documents incorporated by reference.

39. *Terminating Coverage under this Permit*
The reviewing authority may terminate a previously issued Approval of the Request for Coverage, and thereby terminate that permittee's authorization to construct or modify, and that permitted source's authorization to operate under this general permit for cause as defined in Attachment B. The reviewing authority may provide the permittee with notice of the intent to terminate, and delay the effective date of the termination to allow the permittee to obtain a case-by-case permit under 40 CFR 49.155.

40. *Change in Ownership*
If the permitted source changes ownership, the reviewing authority may change the Approval of the Request of Coverage to reflect the new ownership in accordance with the administrative amendment provisions in 40 CFR 49.159(f).

Section 7: Obtaining Coverage under this General Permit

41. To obtain coverage under this general permit, an applicant must submit a Request for Coverage to the appropriate reviewing authority for the area in which the permitted source is or will be located. Attachment C contains a list of reviewing authorities and their area of coverage.

42. You must also submit a copy of the Request for Coverage to the Indian Governing Body for any area within Indian country in which the permitted source will locate at the same time you submit your Request for Coverage to the reviewing authority.

Attachment A: Abbreviations and Acronyms

ASTM	American Society for Testing and Materials
CAA	Federal Clean Air Act
CFR	Code of Federal Regulations
CO	carbon monoxide
CO_2	carbon dioxide
EPA	United States Environmental Protection Agency
hp	horsepower
LPG	liquefied petroleum gas
NAAQS	National ambient air quality standards
NO_X	nitrogen oxides, except N_2O
NSR	new source review
PSD	Prevention of Significant Deterioration
VOC	volatile organic compounds
SI	spark ignition
scf	standard cubic feet

Attachment B: Definitions

For the purposes of this general permit:

2-stroke engine means a type of engine which completes the power cycle in single crankshaft revolutions by combining the intake and compression operations into one stroke and the power and exhaust operations into a second stroke. This system requires auxiliary scavenging and inherently runs lean of stoichiometric.

4-stroke engine means any type of engine which completes the power cycle in two crankshaft revolutions, with intake and compression strokes in the first revolution and power and exhaust strokes in the second revolution.

Approval of the Request for Coverage means a reviewing authority's letter granting an applicant's request for construction or modification, and operation of a true minor source under the terms and conditions of this general permit.

Biodiesel means a combustion fuel made from fatty acids of methyl esters that complies with the specifications of ASTM 6751.

Cause means with respect to the reviewing authority's ability to terminate a permitted source's coverage under a permit that:

1. The permittee is not in compliance with the provisions of this general permit;
2. The reviewing authority determines that the emissions resulting from the construction or modification of the permitted source significantly contribute to NAAQS violations, which are not adequately addressed by the requirements in this general permit;
3. The reviewing authority has reasonable cause to believe that the permittee obtained Approval of the Request for Coverage by fraud or misrepresentation; or
4. The permittee failed to disclose a material fact required by the Request for Coverage or the regulations applicable to the permitted source of which the applicant had or should have had knowledge at the time the permittee submitted the Request for Coverage.

Certified means, with respect to an engine, an engine that belongs to an engine family that has a certificate of conformity that complies with the emission standards and requirements in 40 CFR parts 60, 89, 90, 1039, 1048, or 1054, as appropriate.

Compression ignition means relating to a type of stationary internal combustion engine that is not a SI engine and are typically diesel engines where the heat generated from compression is enough to initiate the combustion process, without needing any external spark.

Construction means any physical change or change in the method of operation including fabrication, erection, installation, demolition, or modification of an emission unit that would result in a change of emissions.

Digester gas means any gaseous by-product of wastewater treatment typically formed through the anaerobic decomposition of organic waste materials and composed principally of methane and carbon dioxide (CO_2).

Distillate fuel means fuel oils, including recycled oils that comply with the specifications for fuel oil numbers 1 and 2, as defined by ASTM 396, or equivalent.

Emergency engine means an engine that is operated to provide electrical power or mechanical work during an emergency situation. Examples include engines used to produce power for critical networks or equipment (including power supplied to portions of a facility) when electric power from the local utility (or the normal power source, if the

facility runs on its own power production) is interrupted, or an engine used to pump water in the case of fire, flood, or other event.

Lean burn engine means any two-stroke or four-stroke SI engine that does not meet the definition of a rich burn engine.

Liquefied petroleum gas means any liquefied hydrocarbon gas obtained as a by-product in petroleum refining or natural gas production.

Oxidation catalyst means an add-on catalytic control device that controls CO and volatile organic compounds (VOC) by oxidation.

Non-selective catalytic reduction means an add-on catalytic NO_X control device for rich burn engines that, in a two-step reaction, promotes the conversion of excess oxygen, NO_X, CO, and VOC into CO_2, nitrogen, and water.

Permittee means the owner or operator of a permitted source.

Permitted source means each reciprocating internal combustion engine for which a reviewing authority issues an Approval of the Request for Coverage.

Request for Coverage means a permit application that contains all the information required in the standard application form.

Rich burn engine means any four-stroke spark ignited engine where the manufacturer's recommended operating air/fuel ratio divided by the stoichiometric air/fuel ratio at full load conditions is less than or equal to 1.1. Engines originally manufactured as rich burn engines, but modified prior to December 19, 2002 with passive emission control technology for NO_X (such as pre-combustion chambers), will be considered lean burn engines. Also, existing engines where there are no manufacturer's recommendations regarding air/fuel ratio will be considered a rich burn engine if the excess oxygen content of the exhaust at full load conditions is less than or equal to 2 percent.

SI engine is either a gasoline-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. Spark ignition engines are dual-fuel engines in which a liquid fuel (typically diesel fuel) is used for compression 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.

Standard cubic foot means a measure of the quantity of a gas equal to a cubic foot of volume at a temperature of 68°F and a pressure of 29.92 inches mercury.

Attachment C – List of the EPA Reviewing Authorities and Areas of Coverage

EPA Region	Address	Area Covered	Phone Number
Region 1	1 Congress Street Suite 1100 Boston, MA 02114–2023	Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont	888- 372-7341 617-918-1111
Region 2	290 Broadway 25th Floor New York, NY 10007–1866	New Jersey, New York, Puerto Rico, and Virgin Islands	877-251-4575
Region 3	1650 Arch Street Philadelphia, PA 19103–2187	Delaware, District of Columbia, Maryland, Pennsylvania, Virginia, and West Virginia	800-438-2474 215-814-5000
Region 4	Sam Nunn Atlanta Federal Center 61 Forsyth Street SW 12th Floor Atlanta, GA 30303	Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, and Tennessee	800-241-1754 404-562-9000
Region 5	77 West Jackson Street Chicago, IL 60604	Illinois, Indiana, Michigan, Minnesota, Ohio, and Wisconsin	800-621-8431 312-353-2000
Region 6	1445 Ross Avenue Dallas, TX 75202	Arkansas, Louisiana, New Mexico, Oklahoma, and Texas	800-887-6063 214-665-2760
Region 7	901 North 5th Street Kansas City, KS 66101–2907	Iowa, Kansas, Missouri, and Nebraska	800-223-0425 913-551-7003
Region 8	1595 Wynkoop Street Denver, CO 80202–1129	Colorado, Montana, North Dakota, South Dakota, Utah, and Wyoming	800-227-8917 303-312-6312
Region 9	75 Hawthorne Street San Francisco, CA 94105	American Samoa, Arizona, California, Guam, Hawaii, Navajo Nation, Nevada, and Northern Mariana Islands	866-372-9378 415-947-8000
Region 10	1200 Sixth Avenue Seattle, WA 98101	Alaska, Idaho, Oregon, and Washington	800-424-4372 206-553-1200