

Statement of Basis

**Permit to Construct No. P-2012.0006
Project ID 60994**

**Idaho Power Co, Salmon Substation
Salmon, Idaho**

Facility ID 059-00007

Final

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**Harbi Elshafei HE
Permit Writer**

The purpose of this Statement of Basis is to satisfy the requirements of IDAPA 58.01.01. et seq, Rules for the Control of Air Pollution in Idaho, for issuing air permits.

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ACRONYMS, UNITS, AND CHEMICAL NOMENCLATURE

acfm	actual cubic feet per minute
ASTM	American Society for Testing and Materials
bhp	brake horsepower
CAA	Clean Air Act
cfm	cubic feet per minute
CFR	Code of Federal Regulations
CI	compression ignition
CO	carbon monoxide
CO ₂	carbon dioxide
CO ₂ e	CO ₂ equivalent emissions
DEQ	Department of Environmental Quality
dscf	dry standard cubic feet
EL	screening emission levels
EPA	U.S. Environmental Protection Agency
GHG	greenhouse gases
gr	(1 lb = 7,000 grains)
HAP	hazardous air pollutants
hp	horsepower
ICE	internal combustion engines
IDAPA	a numbering designation for all administrative rules in Idaho promulgated in accordance with the Idaho Administrative Procedures Act
lb/hr	pounds per hour
MMscf	million standard cubic feet
NAAQS	National Ambient Air Quality Standards
NESHAP	National Emission Standards for Hazardous Air Pollutants
NO ₂	nitrogen dioxide
NO _x	nitrogen oxides
NSPS	New Source Performance Standards
PM	particulate matter
PM ₁₀	particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers
ppm	parts per million
ppmw	parts per million by weight
PSD	Prevention of Significant Deterioration
PTC	permit to construct
PTC/T2	permit to construct and Tier II operating permit
PTE	potential to emit
RICE	reciprocating internal combustion engines
<i>Rules</i>	<i>Rules for the Control of Air Pollution in Idaho</i>
scf	standard cubic feet
SIP	State Implementation Plan
SM80	synthetic minor facility with emissions greater than or equal to 80% of a major source threshold
SO ₂	sulfur dioxide
SO _x	sulfur oxides
T/yr	tons per consecutive 12 calendar month period
T2	Tier II operating permit
U.S.C.	United States Code
VOC	volatile organic compounds
µg/m ³	micrograms per cubic meter

FACILITY INFORMATION

Description

The two diesel-fired emergency generator engines are located west and east of the facility. Each generator's engine rated maximum capacity is 2.75 megawatts (MW) and they operate on No. 1 and No. 2 diesel fuel or a mix of No. 1 and No. 2. The generator engines are used to provide power for emergency situations in the Salmon, Idaho area.

This permitting action is to renew the facility's Tier II operating permit (T2) No. T2-060525, issued May 4, 2007 and to convert the T2 to a PTC. This PTC also changes the existing facility wide fuel consumption from 392,392 gallons per year (gal/yr) to an hourly use limit of 100 hours/year (hr/yr) per engine, or the comparable fuel use limit of 40,040 gal/yr. The source description of the engines that existed in the T2-060525 is changed from a base load resource to emergency reciprocating internal combustion engines.

Permitting History

This is a permit to construct (PTC) revision to convert the existing Tier II Operating Permit and PTC (T2)) No. T2-050033, issued May 4, 2007 to a facility-wide PTC.

The following information was derived from a review of the permit files available to DEQ. Permit status is noted as active and in effect (A) or superseded (S).

May 4, 2007	T2 permit renewal No. T2-060525 was issued which superseded permit No. 059-00007, issued on January 25, 2002. Permit status (A, but will become S upon issuance of this permit.)
January 25, 2002	Initial T2 operating permit No. 059-00007 was issued to Idaho Power Inc. (IPC). Permit status (S).

Application Scope

This project is to renew the facility's existing Tier II Operating Permit No. T2-060525, issued May 4, 2007 and to convert the permit to a permit to construct (PTC). This PTC also changes the existing facility wide fuel consumption from 392,392 gallons per year (gal/yr) to an hourly use limit of 100 hours/year (hr/yr) per engine, or the comparable fuel use limit of 40,040 gal/yr. The source description of the engines that existed in the T2-060525 is changed from a base load resource to emergency engines.

Furthermore, this PTC also changes the responsible official for this facility from Vernon Porter to Dale Koger.

Application Chronology

February 10, 2012	DEQ received an application and an application fee.
March 12, 2012	DEQ determined that the application was complete.
March 16, 2012	DEQ received supplemental information from the applicant.
March 23, 2012	DEQ received additional information regarding GHG emission estimates.
March 27, 2012	DEQ made available the draft permit and statement of basis for peer and regional office review.
April 6, 2012	DEQ made available the draft permit and statement of basis for applicant review.
April 20, 2012	DEQ received the permit processing fee (\$1,000.00).

April 23, 2012 DEQ received a letter from IPC requesting to change the current status of the existing permit for the generator engines from a base load resource to emergency engines. The IPC has elected to reduce the use of each of the emergency engines to 100 hours of operations per year to meet the requirements of the MACT Subpart ZZZZ before the compliance date of this MACT which starts on May 3, 2013.

May 4, 2012 DEQ received comments on the facility draft PTC and the statement of basis.

May 17, 2012 DEQ made available the second draft permit and statement of basis for peer and regional office review.

May 23, 2012 DEQ made available the second draft permit and statement of basis for applicant review.

June 1, 2012 DEQ received comments on the facility second draft permit.

June 15, 2012 DEQ issued the final permit and statement of basis.

TECHNICAL ANALYSIS

Emissions Units and Control Equipment

Table 1 EMISSIONS UNIT AND CONTROL EQUIPMENT INFORMATION

Sources	Control Equipment	Emission Point ID No.
<u>Generator Engine West:</u> Manufacturer: EMD of General Motors Company Model: 20-645E-E4 Manufacture Date: 1967 Maximum rated engine power: 2.75 MW (3600 bhp) Burner type: Internal Combustion Fuel Consumption Rate: 201 gallons/hour Fuel: No. 1 or No. 2 fuel oil or mix	None	Exit height: 20 ft (6.10 m) Exit diameter: 2.67 ft (0.81 m) Exit flow rate: 33,836 acfm Exit temperature: 684 °F
<u>Generator Engine East:</u> Manufacturer: EMD of General Motors Company Model: 20-645E-E4 Manufacture Date: 1967 Maximum rated engine power: 2.75 MW (3600 bhp) Burner type: Internal Combustion Fuel Consumption Rate: 201 gallons/hour	None	Exit height: 20 ft (6.10 m) Exit diameter: 2.67 ft (0.81 m) Exit flow rate: 33,836 acfm Exit temperature: 684 °F
<u>Two diesel containing above ground storage tanks:</u> Maximum capacity: 12,000 gallons each Manufacturer: Unknown Date of construction: 1967	None	NA

Emissions Inventories

Since this proposed project is for a renewal of the existing combo T2 that is expiring and it is also to convert the T2 permit to a PTC, emissions will not change as a result of issuance of this permit. Additionally, IPC has elected to reduce the operating hours of each engine to 100 hours per year per engine to be consistent with the hour of operation for that of the MACT requirements of Subpart ZZZZ before the compliance date of this MACT, which is on May 3, 2013. Also, the permittee requested to decrease all emissions limits that existed in T2-060525, issued on May 4, 2007, by reducing the amount fuel consumption from the permitted amount of 392,392 gallons per year to 40,040 gallons per year from the entire facility. Therefore, all permitted emission rates that existed in the T2 permit are reduced significantly as a result of the requested fuel consumption limits.

The emission inventory of all regulated all pollutants are included in the supplemental submittal that was received from IPC on May 4, 2012 and are included in Appendix A of this statement of basis.

Also, the permittee has submitted the emission inventory for the greenhouse gases from the combustion engines existing at the facility and showed that the carbon dioxide gas emissions and its equivalent (CO₂e) is equal to 410 tons per year (T/yr), which is well below the new major source threshold (100,000 T/yr).

Refer to the permit application for details regarding the emission estimates for this facility.

Ambient Air Quality Impact Analyses

DEQ confirmed during the pre-application meeting for this permitting action that no modifications have been made to the emission units at this facility since the last Tier II operating permit was issued in 2007. Facility-wide modeling was conducted in support of that permit. The current permitting action was prompted only by the impending expiration on May 4, 2007 of the T2 permit. In accordance with current modeling and permitting practices, modeling is not required to convert the Tier II operating to a PTC. In addition, since emissions will not increase as a result of this permitting action, modeling is not required.

REGULATORY ANALYSIS

Attainment Designation (40 CFR 81.313)

The facility is located in Lemhi County, which is designated as attainment or unclassifiable for PM_{2.5}, PM₁₀, SO₂, NO₂, CO, and Ozone. Refer to 40 CFR 81.313 for additional information.

Facility Classification

For this permitting action the facility's Aerometric Information Retrieval System (AIRS) has changed from SM80 to SM because the uncontrolled potential to emit (PTE) for NO_x is above 100 T/yr, however, the NO_x controlled PTE is significantly well below 80 T/yr.

Permit to Construct (IDAPA 58.01.01.201)

IDAPA 58.01.01.201Permit to Construct Required

The permittee has requested that a PTC be issued to renew the existing permit No.T2-060525, issued May 4, 2007, that is expiring and proposed to covert the permit to a PTC. The proposed conversion from T2 to PTC will not result in increase in any regulated air pollutants or state toxic air pollutant emissions. Therefore, a permit to construct is required to be issued in accordance with IDAPA 58.01.01.220. This permitting action was processed in accordance with the procedures of IDAPA 58.01.01.200-228.

Tier II Operating Permit (IDAPA 58.01.01.401)

IDAPA 58.01.01.401 Tier II Operating Permit

The applicant did not apply for a Tier II operating permit in accordance with IDAPA 58.01.01.401. Instead, the applicant requested, in writing, that the existing/expiring T2 operating permit be replaced by a PTC to avoid recurring renewals and fees. This request is consistent with current permitting practice. Therefore, the requirements under IDAPA 58.01.01.400-410 do not apply and a PTC will be issued instead.

Visible Emissions (IDAPA 58.01.01.625)

IDAPA 58.01.01.625 Visible Emissions

The sources of PM₁₀ emissions at this facility are subject to the State of Idaho visible emissions standard of 20% opacity. This requirement, and corresponding method for showing compliance, are included in the facility-wide section of the permit.

Standards for New Sources (IDAPA 58.01.01.676)

IDAPA 58.01.01.676.....Standards for New Sources

The fuel-burning equipment located at this facility, with a maximum rated input of less than ten (10) million BTU per hour, are subject to a particulate matter limitation of 0.050 gr/dscf of effluent gas corrected to 3% oxygen by volume when combusting liquid fuels. Fuel-burning equipment is defined as any furnace, boiler, apparatus, stack and all appurtenances thereto, used in the process of burning fuel for the primary purpose of producing heat or power by indirect heat transfer. This requirement is assured in the facility-wide section of the permit.

Title V Classification (IDAPA 58.01.01.300, 40 CFR Part 70)

IDAPA 58.01.01.301Requirement to Obtain Tier I Operating Permit

Facility-wide emissions from this facility do not have a potential to emit greater than 100 tons per year for criteria pollutants (i.e., PM₁₀, SO₂, NO_x, CO, VOC, and HAP) or 10 tons per year for any one HAP or 25 tons per year for all HAPs combined as demonstrated for previously issued permits. Therefore, the facility is not a Tier I source in accordance with IDAPA 58.01.01.006 and the requirements of IDAPA 58.01.01.301 do not apply. To see a list of previously issued permits, refer to the Permit History section above.

PSD Classification (40 CFR 52.21)

40 CFR 52.21Prevention of Significant Deterioration of Air Quality

The facility is not a major stationary source as defined in 40 CFR 52.21(b)(1), nor is it undergoing any physical change at a stationary source not otherwise qualifying under paragraph 40 CFR 52.21(b)(1) as a major stationary source, that would constitute a major stationary source by itself as defined in 40 CFR 52. Therefore in accordance with 40 CFR 52.21(a)(2), PSD requirements are not applicable to this permitting action. The facility is not a designated facility as defined in 40 CFR 52.21(b)(1)(i)(a), and does not have facility-wide emissions of any criteria pollutant that exceed 250 T/yr.

NSPS Applicability (40 CFR 60)

Because the facility has two diesel containing aboveground storage tanks the following NSPS requirements may apply to this facility:

- 40 CFR 60, Subpart K - Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After June 11, 1973, and Prior to May 19, 1978.
- 40 CFR 60, Subpart Ka - Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After May 18, 1978, and Prior to July 23, 1984.
- 40 CFR 60, Subpart Kb - Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or modification Commenced After July 23, 1984.

However, the aboveground diesel fuel storage tanks at the Salmon Substation facility are not subject to Subparts K, Ka, or Kb, because they were constructed on 1967, which are prior to June 11, 1973. Further, the tanks have never been reconstructed or modified.

- 40 CFR 60, Subpart III – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines

The stationary compression ignition internal combustion diesel engines located at Salmon Substation Project are not subject to 40 CFR 60.4200-4219, Subpart III, because construction commenced prior to July 11, 2005 (40 CFR 60.4200(a0)). Further, the engines have never been reconstructed or modified.

NESHAP Applicability (40 CFR 61)

The facility is not subject to any National Emission Standards for Hazardous Air Pollutants (NESHAP) requirements in 40 CFR 61.

MACT Applicability (40 CFR 63)

40 CFR 63 Subpart ZZZZ NESHAPS for Stationary Reciprocating Internal Combustion Engines

The facility has two existing stationary internal combustion engines each with a capacity of 2.75 MW (3600 bhp) that are subject to National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines, 40 CFR 63, Subpart ZZZZ. The requirements of this subpart are included in the permit.

§ 63.6585 *Am I subject to this subpart?*

You are subject to this Subpart if you own or operate a stationary RICE at a major or area source of HAP emissions, except if the stationary RICE is being tested at a stationary RICE test cell/stand.

(a) A stationary RICE is any internal combustion engine which uses reciprocating motion to convert heat energy into mechanical work and which is not mobile. Stationary RICE differs from mobile RICE in that a stationary RICE is not a non-road engine as defined at 40 CFR 1068.30, and is not used to propel a motor vehicle or a vehicle used solely for competition.

(c) An area source of HAP emissions is a source that is not a major source.

The IPC does operate two emergency diesel-fired generator engines each with a capacity of 3600 bhp. In addition, the facility is an area source for HAPs as they are below the major source thresholds of 10 T/yr for any one federally regulated HAP and 25 T/yr for all HAPs combined. This is assured by Permit Condition 24 within the permit.

§ 63.6590 *What parts of my plant does this subpart cover?*

This subpart applies to each affected source.

(a) Affected source. An affected source is any existing, new, or reconstructed stationary RICE located at a major or area source of HAP emissions, excluding stationary RICE being tested at a stationary RICE test cell/stand.

(1) Existing stationary RICE.

(iii) For stationary RICE located at an area source of HAP emissions, a stationary RICE is existing if you commenced construction or reconstruction of the stationary RICE before June 12, 2006.

The engines located at IPC are considered existing as they were constructed in 1967.

§ 63.6595 *When do I have to comply with the subpart?*

(a)(1) If you have an existing stationary RICE, excluding existing non-emergency CI stationary RICE, with a site rating of more than 500 brake HP located at a major source of HAP emissions, you must comply with the applicable emission limitations and operating limitations no later than June 15, 2007. If you have an existing non-emergency CI stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, an existing stationary CI RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions, or an existing stationary CI RICE located at an area source of HAP emissions, you must comply with the applicable emission limitations and operating limitations no later than May 3, 2013. If you have an existing stationary SI RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions, or an existing stationary SI RICE located at an area source of HAP emissions, you must comply with the applicable emission limitations and operating limitations no later than October 19, 2013.

The applicable IC engines must be in compliance with the Subpart no later than May 3, 2013.

§ 63.6600 What emission limitations and operating limitations must I meet if I own or operate a stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions?

The applicable IC engines are not operating at a major source for HAP emissions. Therefore there are no applicable emission and operating limitations under this section.

§ 63.6601 What emission limitations must I meet if I own or operate a 4SLB stationary RICE with a site rating of greater than or equal to 250 brake HP and less than 500 brake HP located at a major source of HAP emissions?

The applicable IC engines are not operating at a major source for HAP emissions and the engines are not a 4-stroke lean burn spark ignition. Therefore there are no applicable emission and operating limitations under this section.

§ 63.6602 What emission limitations must I meet if I own or operate an existing stationary CI RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions?

The applicable IC engines are not operating at a major source for HAP emissions. Therefore there are no applicable emission and operating limitations under this section.

§ 63.6603 What emission limitations and operating limitations must I meet if I own or operate an existing stationary RICE located at an area source of HAP emissions?

Compliance with the numerical emission limitations established in this Subpart is based on the results of testing the average of three 1-hour runs using the testing requirements and procedures in §63.6620 and Table 4 to this Subpart.

(a) If you own or operate an existing stationary CI RICE located at an area source of HAP emissions, you must comply with the requirements in Table 2d to this Subpart and the operating limitations in Table 2b to this Subpart which apply to you.

Table 2d identifies the limitations required by area sources to comply with the Subpart. The specifics of Table 2d require that the permittee perform regular maintenance on the applicable engine(s) such as changing oil and filters every 500 operating hours, inspect air cleaner every 1,000 hours of operation and inspect all hoses and belts every 500 hours of operation. Each of the maintenance procedures shall occur at the indicated interval or annually, whichever occurs first. This is assured by Permit Condition 26 within the permit.

§ 63.6604 What fuel requirements must I meet if I own or operate an existing stationary CI RICE?

If you own or operate an existing non-emergency, non-black start CI stationary RICE with a site rating of more than 300 brake HP with a displacement of less than 30 liters per cylinder that uses diesel fuel, you must use diesel fuel that meets the requirements in 40 CFR 80.510(b) for nonroad diesel fuel. Existing non-emergency CI stationary RICE located in Guam, American Samoa, the Commonwealth of the Northern Mariana Islands, or at area sources in areas of Alaska not accessible by the FAHS are exempt from the requirements of this section.

The IPC operates an emergency engine; therefore this section does not apply to the facility.

§ 63.6605 What are my general requirements for complying with this Subpart?

(a) You must be in compliance with the emission limitations and operating limitations in this Subpart that apply to you at all times.

(b) At all times you 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 based on information available to the Administrator 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.

When operating the applicable IC engine, they be operated in a manner that is consistent with safety and good air pollution control practices for minimizing emissions and compliance with appropriate limitations applies at all times.

§ 63.6610 By what date must I conduct the initial performance tests or other initial compliance demonstrations if I own or operate a stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions?

The engines located at IPC are not required to perform any performance tests and the applicable IC engines are not operating at a major source for HAP emissions. No testing is required in accordance with Table 2d of the subpart.

§ 63.6611 By what date must I conduct the initial performance tests or other initial compliance demonstrations if I own or operate a new or reconstructed 4SLB SI stationary RICE with a site rating of greater than or equal to 250 and less than or equal to 500 brake HP located at a major source of HAP emissions?

The engines located at IPC are not required to perform any performance tests and the applicable IC engines are not operating at a major source for HAP emissions. No testing is required in accordance with Table 2d of the subpart.

§ 63.6612 By what date must I conduct the initial performance tests or other initial compliance demonstrations if I own or operate an existing stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions or an existing stationary RICE located at an area source of HAP emissions?

The engines located at IPC are not required to perform any performance tests with regard to Subpart ZZZZ. No testing is required in accordance with Table 2d of the subpart.

§ 63.6615 When must I conduct subsequent performance tests?

The engines located at IPC are not required to perform any performance tests with regard to Subpart ZZZZ. No testing is required in accordance with Table 2d of the subpart.

§ 63.6620 What performance tests and other procedures must I use?

The engines located at IPC are not required to perform any performance tests with regard to Subpart ZZZZ. No testing is required in accordance with Table 2d of the subpart.

§ 63.6625 What are my monitoring, installation, collection, operation, and maintenance requirements?

(e) If you own or operate any of the following stationary RICE, you must operate and maintain the stationary RICE and after-treatment control device (if any) according to the manufacturer's emission-related written 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:

(3) An existing emergency or black start stationary RICE located at an area source of HAP emissions;

The applicable IC engines need to be operated in accordance with manufacturer's specifications or a maintenance plan may be developed that is consistent with good air pollution control practices.

(f) If you own or operate an existing emergency stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions or an existing emergency stationary RICE located at an area source of HAP emissions, you must install a non-resettable hour meter if one is not already installed.

A non-resettable meter shall be installed if not previously installed. This is assured by Permit Condition 28 within the permit.

(h) If you operate a new, reconstructed, or existing stationary engine, you must 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, after which time the emission standards applicable to all times other than startup in Tables 1a, 2a, 2c, and 2d to this subpart apply.

Idle startup time may not exceed 30 minutes. Applicable emissions standards must be met following the allowable 30 minutes.

(i) If you own or operate a stationary CI engine that is subject to the work, operation or management practices in items 1 or 2 of Table 2c to this subpart or in items 1 or 4 of Table 2d to this subpart, you have the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d to this subpart. The oil analysis must be performed at the same frequency specified for changing the oil in Table 2c or 2d to this subpart. The analysis program must at a minimum analyze the following three parameters: Total Base Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Base Number is less than 30 percent of the Total Base Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine.

This section allows IPC to develop their own oil analysis program to modify the oil changing frequency if the program meets all criteria set forth in subsection (i) of the subpart.

§ 63.6630 How do I demonstrate initial compliance with the emission limitations and operating limitations?

The applicable IC engine is designated as emergency, and it does not have any emission or operating limitations. Rather, maintenance requirements are specified in Table 2d of this subpart. Therefore, this section is not applicable.

§ 63.6635 How do I monitor and collect data to demonstrate continuous compliance?

The applicable IC engine is designated as emergency, and it does not have any emission or operating limitations. Rather, maintenance requirements are specified in Table 2d of this subpart. As a result data capture is not necessary. Therefore, this section is not applicable.

§ 63.6640 How do I demonstrate continuous compliance with the emission limitations and operating limitations?

(a) You must demonstrate continuous compliance with each emission limitation and operating limitation in Tables 1a and 1b, Tables 2a and 2b, Table 2c, and Table 2d to this subpart that apply to you according to methods specified in Table 6 to this subpart.

Section 9 of Table 6 of the subpart pertains to the emergency IC engines at IPC. Requirement work practices are accounted for within Permit Condition 29 of the associated permit.

(f) Requirements for emergency stationary RICE. (1) If you own or operate an existing emergency stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions, a new or reconstructed emergency stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions that was installed on or after June 12, 2006, or an existing emergency stationary RICE located at an area source of HAP emissions, you must operate the emergency stationary RICE according to the requirements in paragraphs (f)(1)(i) through (iii) of this section. Any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, as described in paragraphs (f)(1)(i) through (iii) of this section, is prohibited. If you do not operate the engine according to the requirements in paragraphs (f)(1)(i) through (iii) of this section, the engine will not be considered an emergency engine under this subpart and will need to meet all requirements for non-emergency engines.

(i) There is no time limit on the use of emergency stationary RICE in emergency situations.

(ii) You may operate your emergency stationary RICE for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by Federal, State or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of such

units is limited to 100 hours per year. 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 RICE beyond 100 hours per year.

(iii) You may operate your emergency stationary RICE up to 50 hours per year in non-emergency situations, but those 50 hours are counted towards the 100 hours per year provided for maintenance and 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 or otherwise supply power as part of a financial arrangement with another entity; except that owners and operators may operate the emergency engine for a maximum of 15 hours per year as part of a demand response program if the regional transmission organization or equivalent balancing authority and transmission operator has determined there are emergency conditions that could lead to a potential electrical blackout, such as unusually low frequency, equipment overload, capacity or energy deficiency, or unacceptable voltage level. 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 operation must be terminated immediately after the facility is notified that the emergency condition is no longer imminent. The 15 hours per year of demand response operation are counted as part of the 50 hours of operation per year provided for non-emergency situations. The supply of emergency power to another entity or entities pursuant to financial arrangement is not limited by this paragraph (f)(1)(iii), as long as the power provided by the financial arrangement is limited to emergency power.

The above requirements apply to the engines existing at the IPC Salmon Substation. This is assured by Permit Condition 29 within the permit.

It should be noted that the permittee submitted a comment regarding the EPA proposed amendment to the area source MACT Subpart ZZZZ (specifically 40 CFR 63.6640(f)(1)(i)-(iii)). The permittee requested changes to the PTC to reflect the proposed MACT changes. Since the proposed changes to the MACT subpart ZZZZ rules are not final at the time of issuance of this permit, DEQ did not change that permit condition (Permit Condition 29) as described in the proposed changes to the subpart by Federal Register on 6/7/12 (see the following link: <http://www.gpo.gov/fdsys/pkg/FR-2012-06-07/pdf/2012-13193.pdf>).

However, DEQ has changed Permit Condition 29 to include a high level citation (i.e., 40 CFR 63.6640) without stating in the PTC any specific limitations on hours of operations during the peak shaving demand. In this situation if the proposed rules become final, the permittee may have the option of not revising the facility's permit to reflect any future changes to that section of the MACT Subpart ZZZZ rules.

§ 63.6645 *What notifications must I submit and when?*

(a) You must submit all of the notifications in §§63.7(b) and (c), 63.8(e), (f)(4) and (f)(6), 63.9(b) through (e), and (g) and (h) that apply to you by the dates specified if you own or operate any of the following:

(5) This requirement does not apply if you own or operate an existing stationary RICE less than 100 HP, an existing stationary emergency RICE, or an existing stationary RICE that is not subject to any numerical emission standards.

This section of the subpart is not applicable to the engines at to IPC. There is no notification is required for the engines because it is designated as emergency. 40 CFR 63.6645(a)(5) explicitly exempts emergency engines from this requirement.

§ 63.6650 *What reports must I submit and when?*

(a) You must submit each report in Table 7 of this subpart that applies to you.

All required reporting is specified in Table 7 of Subpart ZZZZ. However, Table 7 does not include any requirements for emergency engines. Therefore, this section of the subpart is not applicable to IPC Salmon Substation.

§ 63.6655 *What records must I keep?*

(e) You must keep records of the maintenance conducted on the stationary RICE in order to demonstrate that you operated and maintained the stationary RICE and after-treatment control device (if any) according to your own maintenance plan if you own or operate any of the following stationary RICE;

(2) An existing stationary emergency RICE.

(f) If you own or operate any of the stationary RICE in paragraphs (f)(1) or (2) of this section, you must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The owner or operator must document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. If the engines are used for demand response operation, the owner or operator must keep records of the notification of the emergency situation, and the time the engine was operated as part of demand response.

(2) An existing emergency stationary RICE located at an area source of HAP emissions that does not meet the standards applicable to non-emergency engines.

The permittee needs to maintain records demonstrating that the engines existing at IPC, Salmon Substation are being operated in accordance with an appropriate maintenance plan. Records of operational hours from the non-resettable meter must also be kept. How many hours were spent in emergency situations and demand response. This requirement is established in Permit Condition 30.

§ 63.6660 *In what form and how long must I keep my records?*

(a) Your records must be in a form suitable and readily available for expeditious review according to §63.10(b)(1).

(b) As specified in §63.10(b)(1), you must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.

(c) You must keep each record readily accessible in hard copy or electronic form for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to §63.10(b)(1).

Permit Condition 30 also accounts for these requirements.

New Permit Conditions: The NESHAP General Provisions and the Incorporation of Federal Requirements by Reference in Permit Conditions 17 and 32. The permittee shall comply with all applicable requirements of 40 CFR 63 Subpart ZZZZ and all applicable general provisions of 40 CFR 63 Subpart. These permit conditions are new and are included in the permit because the MACT Subpart ZZZZ is applicable to the engines that exist at the facility.

Permit Conditions Review

This section describes the permit conditions for this PTC or only those permit conditions that have been added, revised, modified or deleted as a result of this permitting action.

Existing and New Permit Conditions:

Permit conditions that existed in the T2-060525, issued on May 4, 2007 are revised to reflect the request by the permittee to reduce the allowable amount of fuel consumption found in the T2-060525. In addition, this PTC includes new permit conditions (i.e., fuel sulfur contents, fuel throughput monitoring, and the MACT Subpart ZZZZ requirements.)

The most recent information regarding facility-wide conditions and General Provisions is provided in this permit.

Facility-Wide Conditions:

- All reasonable precautions shall be taken to prevent PM from becoming airborne in accordance with the fugitive dust requirements of Permit Condition 6 and IDAPA 58.01.01.650-651.
- Compliance with the fugitive requirements under Permit Condition 6 is assured by following the operating, monitoring and recordkeeping requirements listed in Permit Conditions 6, 7, 8, and 9.

- The permittee shall not allow, suffer, cause, or permit the emission of odorous gases, liquids, or solids to the atmosphere in such quantities as to cause air pollution in accordance with the odor requirements of Permit Condition 10 and IDAPA 58.01.01.775-776.
- Compliance with the odor requirements under Permit Condition 10 is assured by following the operating, monitoring and recordkeeping requirements in Permit Condition 11.
- Visible emissions (opacity) standards apply to any stack, vent or other equivalent opening at the facility in accordance with Permit Condition 12 and IDAPA 58.01.01.625.
- Compliance with the visible emissions requirements under Permit Condition 12 is assured by following the operating, monitoring and recordkeeping requirements in Permit Condition 14 and the Monitoring and Recordkeeping specified in General Provisions. The requirements in Permit Condition 14 were updated to match the latest version being used in the air permits template.
- If open burning is conducted at the facility, the open burning requirements apply per Permit Condition 13 and IDAPA 58.01.01.600-624 (Rules for Control of Open Burning).
- All reporting and certifications required by this permit shall be in accordance with Permit Condition 14. The certification provision requires that a responsible official certify all documents submitted to DEQ, in accordance with IDAPA 58.01.01.123.
- The fuel burning equipment of IDAPA 58.01.01.675 applies to the two engines existing at the facility. The PM emissions limits shall not be in excess of 0.050 gr/dscf of effluent gas corrected to 3% oxygen by volume for liquid.
- New Permit Condition: The permittee shall not sell, distribute, use, or make available for use any distillate fuel oil containing more than the following percentages of sulfur: ASTM Grade 1 fuel oil - 0.3% by weight; ASTM Grade 2 fuel oil – 0.5 by weight in accordance with IDAPA 58.01.01.725.

Compliance with this permit condition is assured by the permittee to maintain documentation on site of supplier verification of distillate fuel oil sulfur content on as-received basis

- Permit Condition 17 requires the permittee to comply with the requirements of the General Provisions of 40 CFR 63, Subpart A.
- Permit Condition 3.2 existed in T2-060525, issued on 5/4/2007 sets emission rate limits for PM₁₀, SO₂, NO_x, and CO as provided in the table below.

DIESEL-FIRED GENERATOR ENGINE EMISSION LIMITS

Source Descriptions	PM ₁₀		SO ₂		NO _x		CO	
	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr
Two 2.75 Generator	3.8	4.9	12.2	6.4	198.1	99.2	41.8	23.4

All of the emission limits existed in T2-060525 operating permit is not carried over for this permitting action.

The new tons per year emission estimates for PM₁₀, SO₂, NO_x, and CO, which resulted from the requested reduction in fuel consumptions from 392,392 gal/yr to 40,040 gal/yr are 0.5, 0.66, 10.1, and 2.4 T/yr, respectively (see comments on draft permit received on 5/4/2012.) At these estimated annual emission rates the facility emissions for each pollutant is well below the emissions that would trigger any permitting requirements with regard to Tier I operating permit or PSD. Therefore, no tons per year requirements are needed for this permitting action.

Furthermore, the short-term emissions limits for PM₁₀, SO₂, NO_x, and CO that were included in the previous T2 operating permit were based on source tests that were conducted on the generator engines on June 13 and 14, 2001. These emissions limits are also deleted for the PTC of this permitting action.

The short-term emission limits for NO_x, as an example, were set in the previous T2 permit at 198.1 lbs/hr (assuming this is the maximum hourly emission rate estimate for both engines combined). In accordance with the DEQ's modeling review analysis for the T2 operating permit for the Salmon Substation dated October 24, 2001, the modeled annual average emissions rate for the engines were based on 57.06 lbs/hr and at operation of 8760 hours per year. The revised permit only allows 100 hours per year of operation for each engine which will result in a combined annual average NO_x emissions rate of 2.3 lbs/hr (198.1 lb/hr * 100hr/8760 hr). This is significantly less than the combined annual average emission rate that was used in the previous modeling analysis that showed compliance with the NAAQS. The same is true for other pollutants that have NAAQS annual average periods such as PM₁₀ and SO₂. The SO₂ short-term emission rate will also be reduced significantly by a permit condition requirement in the PTC to include an ultra-low sulfur diesel of 15 ppm (0.0015 weight percent) sulfur content in the fuel used in the engines.

The CO NAAQS, however, has a 1-hr and 8-hr averaging periods. By considering the 8-hr averaging period, as an example, the modeled ambient concentration as described in the DEQ modeling analysis dated on 10/24/2001 was equal to 319.37 µg/m³, which was based on CO permitted emission rate of 41.8 lbs/hr. If the modeled concentrations were to triple and the result is added to the background concentration, the total ambient concentration would be below the NAAQS regulatory limit of 10,000 µg/m³. Therefore, the CO short-term limit is also deleted from this PTC permitting action. The same is true for the PM₁₀ short-term emission limit, which is also has not been carried over into this PTC revision.

Therefore, all short-term emission rates existed in the previous T2 permit is not included in this PTC permitting action.

- New Permit Condition 20 requires the permittee to measure the diesel fuel burned in gallons per hour during operation to determine compliance with the annual fuel throughput limits allowed in the permit. The T2-060525, issued on May 4, 2007 did not include a fuel flow meter to measure the fuel used in the engines during operations. The fuel flow meter is required to be installed within 180 days of issuance of this permit. Permit Condition 20 also sets an hour of operation limits of 100 hours per year for each engine. Compliance with this permit condition is assured by Permit Condition 23 (Hours of Operation Monitoring.)
- New Permit Condition 21 requires the permittee to use ASTM No. 1, No. 2, or mix of Nos. 1 and 2 that contain a sulfur content of 0.0015 weight (wt) percent. This is assured by Permit Condition 16 within the permit and Permit Condition 21.
- New Permit Condition 22 requires the permittee to monitor and record the fuel consumption in the engines, daily, monthly, and annually to determine compliance with Permit Condition 20 (Fuel Burning Throughput Limits).

MACT Requirements (40 CFR 63, Subpart ZZZZ):

The permit condition requirements and the methods for determining compliance for these requirements associated with the emergency internal combustion engine are addressed in in the MACT Applicability section of this statement of basis.

PTC General Provisions:

The most current version of PTC General Provisions is used in this permit, as described below:

The duty to comply general compliance provision requires that the permittee comply with all of the permit terms and conditions pursuant to Idaho Code §39-101.

The maintenance and operation general compliance provision requires that the permittee maintain and operate all treatment and control facilities at the facility in accordance with IDAPA 58.01.01.211.

The obligation to comply general compliance provision specifies that no permit condition is intended to relieve or exempt the permittee from compliance with applicable state and federal requirements, in accordance with IDAPA 58.01.01.212.01.

The inspection and entry provision requires that the permittee allow DEQ inspection and entry pursuant to Idaho Code §39-108.

The requirement in Permit Condition 39 that "this permit shall expire if construction has not begun within two years of its issue date, or if construction is suspended for one year" does not apply to this permit. This is because the facility is already constructed and operating.

The construction and operation notification provision in Permit Condition 40 requires that the permittee notify DEQ of the dates of construction and operation, in accordance with IDAPA 58.01.01.211. For this permit, the notification requirements in Permit Condition 40 don't apply. This is because the sources described in the application for this permit are constructed and operating with the initial Tier II operating permit No. 059-00007, issued to the facility on January 25, 2002.

The performance testing notification of intent provision requires that the permittee notify DEQ at least 15 days prior to any performance test to provide DEQ the option to have an observer present, in accordance with IDAPA 58.01.01.157.03.

The performance test protocol provision requires that any performance testing be conducted in accordance with the procedures of IDAPA 58.01.01.157, and encourages the permittee to submit a protocol to DEQ for approval prior to testing.

The performance test report provision requires that the permittee report any performance test results to DEQ within 30 days of completion, in accordance with IDAPA 58.01.01.157.04-05.

The monitoring and recordkeeping provision requires that the permittee maintain sufficient records to ensure compliance with permit conditions, in accordance with IDAPA 58.01.01.211.

The excess emissions provision requires that the permittee follow the procedures required for excess emissions events, in accordance with IDAPA 58.01.01.130. If a reportable excess emission event occurs, send the notifications to the DEQ Idaho Falls Regional Office as described in the rule.

The certification provision requires that a responsible official certify all documents submitted to DEQ, in accordance with IDAPA 58.01.01.123.

The false statement provision requires that no person make false statements, representations, or certifications, in accordance with IDAPA 58.01.01.125.

The tampering provision requires that no person render inaccurate any required monitoring device or method, in accordance with IDAPA 58.01.01.126.

The transferability provision specifies that this permit to construct is transferable, in accordance with the procedures of IDAPA 58.01.01.209.06.

The severability provision specifies that permit conditions are severable, in accordance with IDAPA 58.01.01.211.

PUBLIC REVIEW

Public Comment Opportunity

Because this permitting action does not authorize an increase in emissions, an opportunity for public comment period was not required or provided in accordance with IDAPA 58.01.01.209.04 or IDAPA 58.01.01.404.04.

APPENDIX A – EMISSIONS INVENTORY

VOC Emission Estimates
 Two Diesel-Fueled Electric Generators
 Salmon, ID

pollutant	AP 42 Emission Factor per generator (lb/MMBtu) (fuel input)	VOC Emissions Estimates per Generator (lb/hr)	VOC Emissions Estimates for two Generators (lb/hr)	Ton/year estimate for Two Generators	VOC** emissions for two diesel tanks (lb/hr)	VOC ** emissions for two diesel tanks (Ton/yr)	Total Facility VOC emissions (lb/hr)	Total Facility VOC emissions (Ton/yr)
VOC*	0.09	2.47	4.94	0.493801308	0.0011	0.0049	4.94	0.50

*Per AP-42 guidance, VOC emission rates are taken as TOC emissions for diesel generators.

** Tank VOC emissions were calculated using the EPA TANKS program and included in the original Tier II permit application.

A copy of the results from the TANKS program has been included in this application as a part of Appendix 6.

Assumptions:

19300 Btu/lb
 7.1 lb/gal
 200.2 gal/hr
 200 hr/yr

Per AP 42, Table 3.4-1 the average heating value of diesel
 Per AP 42, Table 3.4-1 the average density of diesel
 fuel consumption rate for each generator
 hour per year calculation

TAP Emission Estimates
 Two Diesel-Fueled Electric Generators
 Salmon, ID

pollutant	AP 42 Emission Factor per generator (lb/MMBtu) (fuel input)	TAPs Emissions Estimates per Generator (lb/hr)	TAPs Emissions Estimates for two Generators (lb/hr)	IDEQ TAPs Screening Level	Exceedes Idaho Screening Levels (lb/hr)	Tpy Calculation
Benzene	7.76E-04	2.13E-02	4.26E-02	8.00E-04	X	0.0043
Toluene	2.81E-04	7.71E-03	1.54E-02	25		0.0015
Xylenes	1.93E-04	5.29E-03	1.06E-02	29		0.0011
propylene	2.79E-03	7.65E-02	1.53E-01	NA		0.0153
Formaldehyde	7.89E-05	2.16E-03	4.33E-03	5.10E-04	X	0.0004
Acetaldehyde	2.52E-05	6.91E-04	1.38E-03	3.00E-03		0.0001
Acrolein	7.88E-06	2.16E-04	4.32E-04	1.70E-02		0.0000
Naphthalene	1.30E-04	3.57E-03	7.13E-03	3.33		0.0007
Acenaphthylene	9.23E-06	2.53E-04	5.06E-04	NA		0.0001
Acenaphthene	4.68E-06	1.28E-04	2.57E-04	NA		0.0000
Fluorene	1.28E-05	3.51E-04	7.02E-04	0.133		0.0001
Phenanthrene	4.08E-05	1.12E-03	2.24E-03	NA		0.0002
Anthracene	1.23E-06	3.37E-05	6.75E-05	NA		0.0000
Fluoranthene	4.03E-06	1.11E-04	2.21E-04	NA		0.0000
Pyrene	3.71E-06	1.02E-04	2.04E-04	NA		0.0000
Benz(a)anthracene	6.22E-07	1.71E-05	3.41E-05	NA		0.0000
Chrysene	1.53E-06	4.20E-05	8.39E-05	NA		0.0000
Benzo(b)fluoranthene	1.11E-06	3.05E-05	6.09E-05	NA		0.0000
Benzo(k)fluoranthene	2.18E-07	5.98E-06	1.20E-05	NA		0.0000
Benzo(a)pyrene	2.57E-07	7.05E-06	1.41E-05	2.00E-06	X	0.0000
Indeno(1,2,3-cd)pyrene	4.14E-07	1.14E-05	2.27E-05	NA		0.0000
Dibenz(a,h)anthracene	3.46E-07	9.49E-06	1.90E-05	NA		0.0000
Benzo(g,h,i)perylene	5.56E-07	1.53E-05	3.05E-05	NA		0.0000
TOTAL PAH	2.12E-04	5.82E-03	1.16E-02	NA		0.0012

Assumptions:

19300 Btu/lb
 7.1 lb/gal
 200.2 gal/hr
 200 hr/yr

Per AP 42, Table 3.4-1 the average heating value of diesel
 Per AP 42, Table 3.4-1 the average density of diesel
 fuel consumption rate for each generator

CO2 Emission Estimates
 Two Diesel-Fueled Electric Generators
 Salmon, ID

Fuel Input	pollutant	Annual volume of fuel combusted for two engines (gallon)	Default high heat value of fuel from Table C-1 or C-2 of subpart 98 (MMBtu/gallon)	Fuel-specific default emission factor from Table C-1 or C-2 of subpart 98 (kg of pollutant/MMBtu)	mTon/year estimate for two engines	Global Warming Potential	mTon/year CO2e estimate for the entire facility	
Distillate Fuel Oil No. 1	CO2	20020	0.139	73.25	204	1	204	
Distillate Fuel Oil No. 2	CO2	20020	0.138	73.96	204	1	204	
Distillate Fuel Oil No. 1 & No. 2	CH4	40040	0.139	0.003	0.02	21	0	
Distillate Fuel Oil No. 1 & No. 2	N2O	40040	0.139	0.0006	0.00	310	1	
Total CO2e PTE								410

Calculations are based on the Tier I methodology because the heat input rate per generator is less than 250MMBtu/hr. [CO2 use 98.33(a)(1)(i), Eq. C1, for CH4 and N2O use 98.33(c)(1), Eq. C-8].

Assumptions:

- 19300 Btu/lb
- 7.1 lb/gal
- 200.2 gal/hr
- 200 hr/yr
- 27.4 MMBtu/hr
- 40040 gal/year
- Per AP 42, Table 3.4-1 the average heating value of diesel
- Per AP 42, Table 3.4-1 the average density of diesel
- fuel consumption rate for each generator
- hour per year calculation
- Engine heat input capacity/ each engine
- Engine fuel use limitation