

Statement of Basis

**Permit to Construct No. P-2013.0061
Project ID 61489**

**Saint Joseph Regional Medical Center
Lewiston, Idaho**

Facility ID 069-00015

Final

**July 22, 2015
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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

ASTM	American Society for Testing and Materials
Btu	British thermal units
CAA	Clean Air Act
CFR	Code of Federal Regulations
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	grains (1 lb = 7,000 grains)
HAP	hazardous air pollutants
hr/yr	hours per consecutive 12-calendar-month period
IC	internal combustion
IDAPA	a numbering designation for all administrative rules in Idaho promulgated in accordance with the Idaho Administrative Procedures Act
lb/hr	pounds per hour
MACT	Maximum Achievable Control Technology
µg/m ³	micrograms per cubic meter
MMBtu	million British thermal units
MRRR	monitoring, recordkeeping, and reporting requirements
NAAQS	National Ambient Air Quality Standard
NESHAP	National Emission Standards for Hazardous Air Pollutants
NO ₂	nitrogen dioxide
NO _x	nitrogen oxides
NSPS	New Source Performance Standards
O&M	operation and maintenance
O ₂	oxygen
PAH	polyaromatic hydrocarbons
PM	particulate matter
PM _{2.5}	particulate matter with an aerodynamic diameter less than or equal to a nominal 2.5 micrometers
PM ₁₀	particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers
POM	polycyclic organic matter
PSD	Prevention of Significant Deterioration
PTC	permit to construct
PTE	potential to emit
<i>Rules</i>	<i>Rules for the Control of Air Pollution in Idaho</i>
scf	standard cubic feet
SO ₂	sulfur dioxide
SO _x	sulfur oxides
T/day	tons per calendar day
T/yr	tons per consecutive 12-calendar-month period
TAP	toxic air pollutants
VOC	volatile organic compounds
µg/m ³	micrograms per cubic meter

FACILITY INFORMATION

Description

St. Joseph Regional Medical Center operates an existing hospital in Lewiston, Idaho. The facility operates seven existing boilers which provide steam for the hospital and three existing diesel IC engines at the facility. Two of the engines are used for emergency backup electric power and the third engine is used to power an emergency fire-water pump. The facility also has diesel fuel storage tanks for backup fuel for the boilers and the IC engines.

This permitting action involves the removal of the three existing emergency IC engines and the addition of two new emergency IC engines and associated diesel fuel storage tanks.

Permitting History

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).

July 11, 2014 P-2013.0061, Initial PTC for seven boilers and three engines, Permit status (A, but will become S upon issuance of this permit)

Application Scope

This PTC is for a modification at an existing minor facility. The applicant has proposed to remove the three existing emergency IC engines and install two new emergency IC engines and associated diesel fuel storage tanks. Note: an air quality PTC is not required for the diesel fuel storage tanks because there will be no emissions from these units.

Application Chronology

March 17, 2015	DEQ received a permit to construct application and an application fee.
April 3 – April 20, 2015	DEQ provided an opportunity to request a public comment period on the application and proposed permitting action.
May 22, 2015	DEQ modeling staff determined that a modeling review is not required.
April 14, 2015	DEQ determined that the application was complete.
May 27, 2015	DEQ made available the draft permit and statement of basis for peer and regional office review.
June 4, 2015	DEQ made available the draft permit and statement of basis for applicant review.
July 15, 2015	DEQ received the permit processing fee.
July 22, 2015	DEQ issued the final permit and statement of basis.

TECHNICAL ANALYSIS

Emissions Units and Control Equipment

Table 1 EMISSIONS UNITS AND CONTROL EQUIPMENT INFORMATION

Source ID No.	Sources	Control Equipment	Emission Point ID No.
OB04A	<u>Boiler 1 (OB04A):</u> Manufacturer: Amesteam Model No.: A1255 Manufacture Date: 1961 Max. Heat Input: 10.46 MMBtu/hr Primary Fuel: Natural gas Backup Fuel: Diesel	None	<u>Combined exhaust stack:</u> Exit height: 98.5 ft (30 m) Exit diameter: 3 ft (0.91 m) Exit flow rate: 2,324 acfm Exit temperature: 370 °F (460.9 K)
OB04B	<u>Boiler 2 (OB04B):</u> Manufacturer: Amesteam Model No.: A1255 Manufacture Date: 1961 Max. Heat Input: 8.37 MMBtu/hr Primary Fuel: Natural gas Backup Fuel: Diesel	None	
OB04C	<u>Boiler 3 (OB04C):</u> Manufacturer: Cleaver-Brooks Model No.: CB 200HP Manufacture Date: 1990 Max. Heat Input: 5.23 MMBtu/hr Primary Fuel: Natural gas Backup Fuel: Diesel	None	
OB04D	<u>Boiler 4 (OB04D):</u> Manufacturer: Cleaver-Brooks Model No.: CB 200HP Manufacture Date: 1990 Max. Heat Input: 5.23 MMBtu/hr Primary Fuel: Natural gas Backup Fuel: Diesel	None	
OB01	<u>Boiler 5 (OB01):</u> Manufacturer: Fulton Model No.: VTG-6000DF Manufacture Date: 2013 Max. Heat Input: 6.00 MMBtu/hr Primary Fuel: Natural gas Backup Fuel: Diesel	None	<u>Boiler 5 exhaust stack:</u> Exit height: 23 ft (7.0 m) Exit diameter: 1 ft (0.30 m) Exit flow rate: 1,716 acfm Exit temperature: 370 °F (460.9 K)
OB02	<u>Boiler 6 (OB02):</u> Manufacturer: Fulton Model No.: VTG-6000DF Manufacture Date: 2013 Max. Heat Input: 6.00 MMBtu/hr Primary Fuel: Natural gas Backup Fuel: Diesel	None	<u>Boiler 6 exhaust stack:</u> Exit height: 23 ft (7.0 m) Exit diameter: 1 ft (0.30 m) Exit flow rate: 1,716 acfm Exit temperature: 370 °F (460.9 K)
OB03	<u>Boiler 7 (OB03):</u> Manufacturer: Fulton Model No.: VTG-6000DF Manufacture Date: 2013 Max. Heat Input: 6.00 MMBtu/hr Primary Fuel: Natural gas Backup Fuel: Diesel	None	<u>Boiler 7 exhaust stack:</u> Exit height: 23 ft (7.0 m) Exit diameter: 1 ft (0.30 m) Exit flow rate: 1,716 acfm Exit temperature: 370 °F (460.9 K)

Table 1 EMISSIONS UNIT AND CONTROL EQUIPMENT INFORMATION (continued)

Source ID No.	Sources	Control Equipment	Emission Point ID No.
Emergency IC Engine 4	<u>Emergency IC Engine 4:</u> Manufacturer: Cummins Model No.: QSK60 Manufacture Date: 2014 Max. Pwr Rating: 2,922 bhp Fuel: Diesel	None	<u>Emergency IC Engine 4 exhaust stack:</u> Exit height: 25 ft. Exit diameter: 16 in. Exit flow rate: 15,515 acfm Exit temperature: 897 °F
Emergency IC Engine 5	<u>Emergency IC Engine 5:</u> Manufacturer: Cummins Model No.: QSK60 Manufacture Date: 2014 Max. Pwr Rating: 2,922 bhp Fuel: Diesel	None	<u>Emergency IC Engine 5 exhaust stack:</u> Exit height: 25 ft. Exit diameter: 16 in. Exit flow rate: 15,515 acfm Exit temperature: 897 °F

Emission Inventories

Potential to Emit

IDAPA 58.01.01 defines Potential to Emit as the maximum capacity of a facility or stationary source to emit an air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of the facility or source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored or processed, shall be treated as part of its design if the limitation or the effect it would have on emissions is state or federally enforceable. Secondary emissions do not count in determining the potential to emit of a facility or stationary source.

Using this definition of Potential to Emit an emission inventory was developed for the facility using the emission inventory from the previously completed initial PTC and subtracting the emissions from the three existing emergency IC engines and adding the emissions from the two proposed emergency IC engines (see Appendix A). Emissions estimates of criteria pollutant, GHG, and HAP PTE were based on emission factors from the manufacturer and AP-42 and operation of the emergency IC engines for 500 hours per year.

Uncontrolled Potential to Emit

Using the definition of Potential to Emit, uncontrolled Potential to Emit is then defined as the maximum capacity of a facility or stationary source to emit an air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of the facility or source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored or processed, shall not be treated as part of its design since the limitation or the effect it would have on emissions is not state or federally enforceable.

The uncontrolled Potential to Emit is used to determine if a facility is a “Synthetic Minor” source of emissions. Synthetic Minor sources are facilities that have an uncontrolled Potential to Emit for regulated air pollutants or HAP above the applicable Major Source threshold without permit limits.

The following table presents the uncontrolled Potential to Emit for regulated air pollutants as submitted by the Applicant and verified by DEQ staff. See Appendix A for a detailed presentation of the calculations and the assumptions used to determine emissions for each emissions unit. For the seven boilers and two emergency IC engines at the facility, uncontrolled Potential to Emit is assumed to be the same as the Potential to Emit as all emissions calculations were performed at the worst-case maximum.

Table 2 UNCONTROLLED POTENTIAL TO EMIT FOR REGULATED AIR POLLUTANTS

Source	PM ₁₀	PM _{2.5}	SO ₂	NO _x	CO	VOC	CO _{2e}
	T/yr	T/yr	T/yr	T/yr	T/yr	T/yr	T/yr
Point Sources							
Boiler 1 (OB04A)	0.77	0.56	2.32	6.55	3.77	0.25	5,406
Boiler 2 (OB04B)	0.61	0.45	1.86	5.24	3.02	0.20	4,325
Boiler 3 (OB04C)	0.38	0.28	1.16	3.27	1.89	0.12	2,703
Boiler 4 (OB04D)	0.38	0.28	1.16	3.27	1.89	0.12	2,703
Boiler 5 (OB01)	0.44	0.32	1.33	4.24	2.12	0.15	3,181
Boiler 6 (OB02)	0.44	0.32	1.33	4.24	2.12	0.15	3,181
Boiler 7 (OB03)	0.44	0.32	1.33	4.24	2.12	0.15	3,181
Emergency IC Engine 4	0.064	0.064	0.177	8.536	0.290	0.177	798
Emergency IC Engine 5	0.064	0.064	0.177	8.536	0.290	0.177	798
Total, Point Sources	3.59	2.66	10.84	48.12	17.51	1.49	26,276

Pre-Project Potential to Emit

Pre-project Potential to Emit is used to establish the change in emissions at a facility as a result of this project.

The following table presents the pre-project potential to emit for all criteria and GHG pollutants from all emissions units at the facility as submitted by the Applicant and verified by DEQ staff. See **Appendix A** for a detailed presentation of the calculations of these emissions for each emissions unit.

Table 3 PRE PROJECT POTENTIAL TO EMIT FOR REGULATED AIR POLLUTANTS

Source	PM ₁₀		PM _{2.5}		SO ₂		NO _x		CO		VOC		CO _{2e}
	lb/hr ^(a)	T/yr ^(b)	T/yr ^(b)										
Boiler 1 (OB04A)	0.18	0.77	0.13	0.56	0.53	2.32	1.49	6.55	0.86	3.77	0.06	0.25	5,406
Boiler 2 (OB04B)	0.14	0.61	0.10	0.45	0.42	1.86	1.20	5.24	0.69	3.02	0.05	0.20	4,325
Boiler 3 (OB04C)	0.09	0.38	0.06	0.28	0.27	1.16	0.75	3.27	0.43	1.89	0.03	0.12	2,703
Boiler 4 (OB04D)	0.09	0.38	0.06	0.28	0.27	1.16	0.75	3.27	0.43	1.89	0.03	0.12	2,703
Boiler 5 (OB01)	0.10	0.44	0.07	0.32	0.30	1.33	0.97	4.24	0.48	2.12	0.03	0.15	3,181
Boiler 6 (OB02)	0.10	0.44	0.07	0.32	0.30	1.33	0.97	4.24	0.48	2.12	0.03	0.15	3,181
Boiler 7 (OB03)	0.10	0.44	0.07	0.32	0.30	1.33	0.97	4.24	0.48	2.12	0.03	0.15	3,181
Emergency IC Engine 1	0.25	0.061	0.25	0.061	2.41	0.60	51.80	12.95	4.08	1.02	0.49	0.12	493
Emergency IC Engine 2	0.25	0.061	0.25	0.061	2.41	0.60	51.80	12.95	4.08	1.02	0.49	0.12	493
Emergency IC Engine 3	0.07	0.017	0.07	0.017	0.062	0.015	0.93	0.23	0.20	0.05	0.08	0.019	9
Pre Project Totals	1.37	3.60	1.13	2.67	7.27	11.71	111.63	57.18	12.21	19.02	1.32	1.40	25,675

Post Project Potential to Emit

Post project Potential to Emit is used to establish the change in emissions at a facility and to determine the facility's classification as a result of this project. Post project Potential to Emit includes all permit limits resulting from this project.

The following table presents the post project Potential to Emit for criteria and GHG pollutants from all emissions units at the facility as submitted by the Applicant and verified by DEQ staff. See Appendix A for a detailed presentation of the calculations of these emissions for each new emissions unit.

Table 4 POST PROJECT POTENTIAL TO EMIT FOR REGULATED AIR POLLUTANTS

Source	PM ₁₀		PM _{2.5}		SO ₂		NO _x		CO		VOC		CO ₂ e
	lb/hr ^(a)	T/yr ^(b)	T/yr ^(b)										
Boiler 1 (OB04A)	0.18	0.77	0.13	0.56	0.53	2.32	1.49	6.55	0.86	3.77	0.06	0.25	5,406
Boiler 2 (OB04B)	0.14	0.61	0.10	0.45	0.42	1.86	1.20	5.24	0.69	3.02	0.05	0.20	4,325
Boiler 3 (OB04C)	0.09	0.38	0.06	0.28	0.27	1.16	0.75	3.27	0.43	1.89	0.03	0.12	2,703
Boiler 4 (OB04D)	0.09	0.38	0.06	0.28	0.27	1.16	0.75	3.27	0.43	1.89	0.03	0.12	2,703
Boiler 5 (OB01)	0.10	0.44	0.07	0.32	0.30	1.33	0.97	4.24	0.48	2.12	0.03	0.15	3,181
Boiler 6 (OB02)	0.10	0.44	0.07	0.32	0.30	1.33	0.97	4.24	0.48	2.12	0.03	0.15	3,181
Boiler 7 (OB03)	0.10	0.44	0.07	0.32	0.30	1.33	0.97	4.24	0.48	2.12	0.03	0.15	3,181
Emergency IC Engine 4	0.258	0.064	0.258	0.064	0.709	0.177	34.14	8.536	1.16	0.290	0.709	0.177	798
Emergency IC Engine 5	0.258	0.064	0.258	0.064	0.709	0.177	34.14	8.536	1.16	0.290	0.709	0.177	798
Post Project Totals	1.32	3.59	1.08	2.66	3.81	10.84	75.38	48.12	6.17	17.51	1.68	1.49	26,276

- a) Controlled average emission rate in pounds per hour is a daily average, based on the proposed daily operating schedule and daily limits.
- b) Controlled average emission rate in tons per year is an annual average, based on the proposed annual operating schedule and annual limits.

Change in Potential to Emit

The change in facility-wide potential to emit is used to determine if a public comment period may be required and to determine the processing fee per IDAPA 58.01.01.225. The following table presents the facility-wide change in the potential to emit for criteria pollutants.

Table 5 CHANGES IN POTENTIAL TO EMIT FOR REGULATED AIR POLLUTANTS

Source	PM ₁₀		PM _{2.5}		SO ₂		NO _x		CO		VOC		CO ₂ e
	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr	T/yr
Pre-Project Potential to Emit	1.37	3.60	1.13	2.67	7.27	11.71	111.63	57.18	12.21	19.02	1.32	1.40	25,675
Post Project Potential to Emit	1.32	3.59	1.08	2.67	3.81	10.85	75.38	48.11	6.17	17.50	1.68	1.50	26,276
Changes in Potential to Emit	-0.05	-0.01	-0.05	0.00	-3.46	-0.86	-36.25	-9.07	-6.04	-1.52	0.36	0.10	601

Non-Carcinogenic TAP Emissions

A summary of the estimated PTE for emissions increase of non-carcinogenic toxic air pollutants (TAP) is provided in the following table.

Table 6 PRE- AND POST PROJECT POTENTIAL TO EMIT FOR NON-CARCINOGENIC TOXIC AIR POLLUTANTS

Non-Carcinogenic Toxic Air Pollutants	Pre-Project 24-hour Average Emissions Rates for Units at the Facility (lb/hr)	Post Project 24-hour Average Emissions Rates for Units at the Facility (lb/hr)	Change in 24-hour Average Emissions Rates for Units at the Facility (lb/hr)	Non-Carcinogenic Screening Emission Level (lb/hr)	Exceeds Screening Level? (Y/N)
Ethyl benzene	9.25E-06	9.25E-06	0.0000	29	No
Hexane	4.43E-02	4.43E-02	0.0000	12	No
Pentane	6.4E-02	6.4E-02	0.0000	118	No
1,1,1-Trichloroethane	3.43E-05	3.43E-05	0.0000	127	No
Toluene	8.27E-03	8.51E-03	0.0002	25	No
Xylene	5.07E-03	5.23E-03	0.0002	29	No
Antimony	7.63E-04	7.63E-04	0.0000	0.033	No
Chromium	1.23E-04	1.23E-04	0.0000	0.033	No
Cobalt	8.75E-04	8.75E-04	0.0000	0.0033	No
Manganese	4.36E-04	4.36E-04	0.0000	0.333	No
Phosphorus	1.38E-03	1.38E-03	0.0000	0.007	No
Selenium	9.93E-05	9.93E-05	0.000000	0.013	No
Acrolein	2.24E-04	2.30E-04	0.00001	1.70E-02	No

None of the PTEs for non-carcinogenic TAP were exceeded as a result of this project. Therefore, modeling is not required for non-carcinogenic TAP because none of the 24-hour average non-carcinogenic screening ELs identified in IDAPA 58.01.01.585 were exceeded.

Carcinogenic TAP Emissions

A summary of the estimated PTE for emissions increase of carcinogenic toxic air pollutants (TAP) is provided in the following table.

Table 7 PRE- AND POST PROJECT POTENTIAL TO EMIT FOR CARCINOGENIC TOXIC AIR POLLUTANTS

Carcinogenic Toxic Air Pollutants	Pre-Project Annual Average Emissions Rates for Units at the Facility (lb/hr)	Post Project Annual Average Emissions Rates for Units at the Facility (lb/hr)	Change in Annual Average Emissions Rates for Units at the Facility (lb/hr)	Carcinogenic Screening Emission Level (lb/hr)	Exceeds Screening Level? (Y/N)
Benzene	6.22E-04	1.27E-03	0.0006	8.0E-04	No
Formaldehyde	1.61E-03	1.66E-03	0.00005	5.1E-04	No
3-Methylchloanthrene	3.64E-08	3.64E-08	0.00000	2.5E-06	No
Naphthalene	1.32E-05	1.32E-05	0.00000	9.10E-05	No
Arsenic	5.09E-06	5.09E-06	0.00000	1.50E-06	No
Beryllium	2.65E-07	2.65E-07	0.00000	2.80E-05	No
Cadmium	3.70E-06	3.70E-06	0.00000	3.70E-06	No
Chromium VI	1.98E-07	1.98E-07	0.00000	5.6E-07	No
Nickel	1.10E-04	1.10E-04	0.00000	2.70E-05	No
Acetaldehyde	2.32E-05	3.56E-05	0.000012	3.00E-03	No
1,3-Butadiene	2.34E-07	2.34E-07	0.00000	2.40E-05	No
2-Methylnaphthalene	4.85E-07	4.85E-07	0.00000	9.10E-05	No
7, 12-Dimethylbenz(a)anthracene	4.85E-07	4.85E-07	0.00000	9.10E-05	No
Acenaphthylene	7.16E-06	1.44E-05	0.0000072	9.10E-05	No
Acenaphthene	3.52E-06	7.48E-06	0.0000040	9.10E-05	No
Fluorene	6.01E-08	6.01E-08	0.00000	9.10E-05	No
Phenanthrene	3.07E-05	6.53E-05	0.000035	9.10E-05	No
Anthracene	9.70E-07	2.00E-06	0.0000010	9.10E-05	No
Fluoranthene	6.45E-08	6.45E-08	0.00000	9.10E-05	No
Pyrene	2.88E-06	6.00E-06	0.0000031	9.10E-05	No
Benzo(g,h,i)pyrene	2.88E-06	3.35E-06	0.0000005	9.10E-05	No
POM	3.59E-06	7.40E-06	0.0000038	2.0E-06	No

None of the PTEs for carcinogenic TAP were exceeded as a result of this project. Therefore, modeling is not required for any carcinogenic TAP because none of the annual average carcinogenic screening ELs identified in IDAPA 58.01.01.586 were exceeded.

Post Project HAP Emissions

The following table presents the post project potential to emit for HAP pollutants from all emissions units at the facility as submitted by the Applicant and verified by DEQ staff. See Appendix A for a detailed presentation of the calculations of these emissions for each emissions unit.

Table 8 HAZARDOUS AIR POLLUTANTS EMISSIONS POTENTIAL TO EMIT SUMMARY

Hazardous Air Pollutants	PTE (lb/hr)	PTE (T/yr)
Ethyl benzene	9.25E-06	0.000041
Hexane	4.43E-02	0.19
Toluene	8.51E-03	0.037
Xylene	5.23E-03	0.023
Antimony	7.63E-04	0.0033
Chromium	1.23E-04	0.00054
Cobalt	8.75E-04	0.0038
Manganese	4.36E-04	0.0019
Phosphorus	1.38E-03	0.0060
Selenium	9.93E-05	0.00043
Acrolein	2.30E-04	0.00101
Benzene	1.27E-03	0.0056
Formaldehyde	1.66E-03	0.0073
Arsenic	5.09E-06	0.000022
Beryllium	2.65E-07	0.0000012
Cadmium	3.70E-06	0.000016
Chromium VI	1.98E-07	0.0000009
Nickel	1.10E-04	0.00048
Acetaldehyde	3.56E-05	0.00016
1,3-Butadiene	2.34E-07	0.0000010
Totals	0.07	0.28

Ambient Air Quality Impact Analyses

Installation of emergency internal combustion engines is an action that is exempt from PTC requirements as per IDAPA 58.01.01.222.01.d. (Idaho Air Rules Section 222.01.d.). Since this activity is exempt from PTC requirements of Idaho Air Rules Section 201, this permitting action represents a “permit revision” rather than a “modification” as defined by Idaho Air Rules Section 006.68 and 201. Therefore, the NAAQS and TAPs compliance demonstration requirements of Idaho Air Rules Section 203.02 and 203.03 do not apply for issuance of the revised PTC.

REGULATORY ANALYSIS

Attainment Designation (40 CFR 81.313)

The facility is located in Nez Perce 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

“Synthetic Minor” classification for criteria pollutants is defined as the uncontrolled Potential to Emit for criteria pollutants are above the applicable major source thresholds and the Potential to Emit for criteria pollutants fall below the applicable major source thresholds. Therefore, the following table compares the uncontrolled Potential to Emit and the Potential to Emit for criteria pollutants to the Major Source thresholds to determine if the facility will be “Synthetic Minor.”

Table 9 UNCONTROLLED PTE AND PTE FOR REGULATED AIR POLLUTANTS COMPARED TO THE MAJOR SOURCE THRESHOLDS

Pollutant	Uncontrolled PTE (T/yr)	PTE (T/yr)	Major Source Thresholds (T/yr)	Uncontrolled PTE Exceeds the Major Source Threshold and PTE Exceeds the Major Source Threshold?
PM ₁₀	3.59	3.59	100	No
PM _{2.5}	2.68	2.68	100	No
SO ₂	11.72	11.72	100	No
NO _x	48.11	48.11	100	No
CO	17.50	17.50	100	No
VOC	1.50	1.50	100	No
CO _{2e}	26,276	26,276	100,000	No

“Synthetic Minor” classification for HAP pollutants is defined as the uncontrolled Potential to Emit for HAP pollutants are above the applicable major source thresholds and the Potential to Emit for HAP pollutants fall below the applicable major source thresholds. Therefore, the following table compares the uncontrolled Potential to Emit and the Potential to Emit for HAP pollutants to the Major Source thresholds to determine if the facility will be “Synthetic Minor.”

Table 10 UNCONTROLLED PTE AND PTE FOR HAZARDOUS AIR POLLUTANTS COMPARED TO THE MAJOR SOURCE THRESHOLDS

HAP Pollutant	Uncontrolled PTE (T/yr)	PTE (T/yr)	Major Source Thresholds (T/yr)	Uncontrolled PTE Exceeds the Major Source Threshold and PTE Exceeds the Major Source Threshold?
Ethyl benzene	0.000041	0.000041	10	No
Hexane	0.19	0.19	10	No
Toluene	0.036	0.036	10	No
Xylene	0.022	0.022	10	No
Antimony	0.0033	0.0033	10	No
Chromium	0.00054	0.00054	10	No
Cobalt	0.0038	0.0038	10	No
Manganese	0.0019	0.0019	10	No
Phosphorus	0.0060	0.0060	10	No
Selenium	0.00043	0.00043	10	No
Acrolein	0.00101	0.00101	10	No
Benzene	0.0056	0.0056	10	No
Formaldehyde	0.0073	0.0073	10	No
Arsenic	0.000022	0.000022	10	No
Beryllium	0.0000012	0.0000012	10	No
Cadmium	0.000016	0.000016	10	No
Chromium VI	0.0000009	0.0000009	10	No
Nickel	0.00048	0.00048	10	No
Acetaldehyde	0.00016	0.00016	10	No
1,3-Butadiene	0.0000010	0.0000010	10	No
Total	0.28	0.28	25	No

As demonstrated in Table 9, the facility has an uncontrolled potential to emit for PM₁₀, PM_{2.5}, SO₂, NO_x, CO, and VOC emissions are less than the Major Source thresholds of 100 T/yr for each pollutant. In addition, as demonstrated in Table 10 the facility has uncontrolled potential HAP emissions of less than the Major Source threshold of 10 T/yr and for all HAP combined less than the Major Source threshold of 25 T/yr. Therefore, this facility is not designated as a Synthetic Minor facility.

Permit to Construct (IDAPA 58.01.01.201)

IDAPA 58.01.01.201 Permit to Construct Required

The permittee has requested that a PTC be issued to the facility for the proposed new emissions sources. 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 application was submitted for a permit to construct (refer to the Permit to Construct section), and an optional Tier II operating permit has not been requested. Therefore, the procedures of IDAPA 58.01.01.400-410 were not applicable to this permitting action.

Visible Emissions (IDAPA 58.01.01.625)

IDAPA 58.01.01.625 Visible Emissions

The sources of PM₁₀ and PM_{2.5} emissions at this facility are subject to the State of Idaho visible emissions standard of 20% opacity. This requirement is assured by Permit Conditions 2.4 and 3.4.

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

IDAPA 58.01.01.301 Requirement to Obtain Tier I Operating Permit

Post project facility-wide emissions from this facility do not have a potential to emit greater than 100 tons per year for PM₁₀, PM_{2.5}, SO₂, NO_x, CO, and VOC or 10 tons per year for any one HAP or 25 tons per year for all HAP combined as demonstrated previously in the Emissions Inventories Section of this analysis. 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.

PSD Classification (40 CFR 52.21)

40 CFR 52.21 Prevention 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)

The facility operates seven boilers and two emergency IC engines for which the following NSPS requirements apply:

- 40 CFR 60, Subpart Dc—Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units
- 40 CFR 60, Subpart IIII—Standards of Performance for Stationary Compression Ignition Internal Combustion Engines

40 CFR 60, Subpart Dc - Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units

The applicable requirements of the subpart are underlined for identification.

§60.40c Applicability and designation of affected facility

(a) Except as provided in paragraphs (d), (e), (f), and (g) of this section, the affected facility to which this subpart applies is each steam generating unit for which construction, modification, or reconstruction is commenced after June 9, 1989 and that has a maximum design heat input capacity of 29 megawatts (MW) (100 million British thermal units per hour (MMBtu/h)) or less, but greater than or equal to 2.9 MW (10 MMBtu/h).

(b) In delegating implementation and enforcement authority to a State under section 111(c) of the Clean Air Act, §60.48c(a)(4) shall be retained by the Administrator and not transferred to a State.

(c) Steam generating units that meet the applicability requirements in paragraph (a) of this section are not subject to the sulfur dioxide (SO₂) or particulate matter (PM) emission limits, performance testing requirements, or monitoring requirements under this subpart (§§60.42c, 60.43c, 60.44c, 60.45c, 60.46c, or 60.47c) during periods of combustion research, as defined in §60.41c.

(d) Any temporary change to an existing steam generating unit for the purpose of conducting combustion research is not considered a modification under §60.14.

(e) Affected facilities (i.e. heat recovery steam generators and fuel heaters) that are associated with stationary combustion turbines and meet the applicability requirements of subpart KKKK of this part are not subject to this subpart. This subpart will continue to apply to all other heat recovery steam generators, fuel heaters, and other affected facilities that are capable of combusting more than or equal to 2.9 MW (10 MMBtu/h) heat input of fossil fuel but less than or equal to 29 MW (100 MMBtu/h) heat input of fossil fuel. If the heat recovery steam generator, fuel heater, or other affected facility is subject to this subpart, only emissions resulting from combustion of fuels in the steam generating unit are subject to this subpart. (The stationary combustion turbine emissions are subject to subpart GG or KKKK, as applicable, of this part.)

(f) Any affected facility that meets the applicability requirements of and is subject to subpart AAAA or subpart CCCC of this part is not subject to this subpart.

(g) Any facility that meets the applicability requirements and is subject to an EPA approved State or Federal section 111(d)/129 plan implementing subpart BBBB of this part is not subject to this subpart.

(h) Affected facilities that also meet the applicability requirements under subpart J or subpart Ja of this part are subject to the PM and NO_x standards under this subpart and the SO₂ standards under subpart J or subpart Ja of this part, as applicable.

(i) Temporary boilers are not subject to this subpart.

Boilers 2 through 7 all have a maximum heat input rating of less than 10 MMBtu/hr and Boiler 1, with a maximum heat input rating of 10.46 MMBtu/hr, was constructed in 1961 (see Table 1). Therefore, the requirements of NSPS Subpart Dc are not applicable to the seven boilers and no further discussion is required.

40 CFR 60, Subpart IIIIStandards of Performance for Stationary Compression Ignition Internal Combustion Engines

The applicable requirements of the subpart are underlined for identification.

§60.4200 Am I subject to this subpart?

(a) The provisions of this subpart are applicable to manufacturers, owners, and operators of stationary compression ignition (CI) internal combustion engines (ICE) and other persons as specified in paragraphs (a)(1) through (4) of this section. For the purposes of this subpart, the date that construction commences is the date the engine is ordered by the owner or operator.

(1) Manufacturers of stationary CI ICE with a displacement of less than 30 liters per cylinder where the model year is:

(i) 2007 or later, for engines that are not fire pump engines;

(ii) The model year listed in Table 3 to this subpart or later model year, for fire pump engines.

(2) Owners and operators of stationary CI ICE that commence construction after July 11, 2005, where the stationary CI ICE is:

(i) Manufactured after April 1, 2006, and are not fire pump engines, or

The applicant proposes to install two emergency IC engines which will be used to produce power for critical networks and equipment to the medical center when the power supply to the facility from the local utility is interrupted. These engines were manufactured in 2014 and will be installed in 2015 and are therefore subject to this subpart under §60.4200(a)(2)(i).

(ii) Manufactured as a certified National Fire Protection Association (NFPA) fire pump engine after July 1, 2006.

(3) Owners and operators of any stationary CI ICE that are modified or reconstructed after July 11, 2005 and any person that modifies or reconstructs any stationary CI ICE after July 11, 2005.

(4) The provisions of §60.4208 of this subpart are applicable to all owners and operators of stationary CI ICE that commence construction after July 11, 2005.

The applicant proposes to install two emergency IC engines which were manufactured in 2014 to be installed in 2015 and are therefore subject to §60.4200(a)(4).

(b) The provisions of this subpart are not applicable to stationary CI ICE being tested at a stationary CI ICE test cell/stand.

(c) If you are an owner or operator of an area source subject to this subpart, you are exempt from the obligation to obtain a permit under 40 CFR part 70 or 40 CFR part 71, provided you are not required to obtain a permit under 40 CFR 70.3(a) or 40 CFR 71.3(a) for a reason other than your status as an area source under this subpart. Notwithstanding the previous sentence, you must continue to comply with the provisions of this subpart applicable to area sources.

The applicant is required to obtain a permit regardless of these engines. This section is applicable but no action is taken as a result.

(d) Stationary CI ICE may be eligible for exemption from the requirements of this subpart as described in 40 CFR part 1068, subpart C (or the exemptions described in 40 CFR part 89, subpart J and 40 CFR part 94, subpart J, for engines that would need to be certified to standards in those parts), except that owners and operators, as well as manufacturers, may be eligible to request an exemption for national security.

(e) Owners and operators of facilities with CI ICE that are acting as temporary replacement units and that are located at a stationary source for less than 1 year and that have been properly certified as meeting the standards that would be applicable to such engine under the appropriate nonroad engine provisions, are not required to meet any other provisions under this subpart with regard to such engines.

§60.4202 What emission standards must I meet for emergency engines if I am a stationary CI internal combustion engine manufacturer?

(a) Stationary CI internal combustion engine manufacturers must certify their 2007 model year and later emergency stationary CI ICE with a maximum engine power less than or equal to 2,237 KW (3,000 HP) and a displacement of less than 10 liters per cylinder that are not fire pump engines to the emission standards specified in paragraphs (a)(1) through (2) of this section.

(1) For engines with a maximum engine power less than 37 KW (50 HP):

(i) The certification emission standards for new nonroad CI engines for the same model year and maximum engine power in 40 CFR 89.112 and 40 CFR 89.113 for all pollutants for model year 2007 engines, and

(ii) *The certification emission standards for new nonroad CI engines in 40 CFR 1039.104, 40 CFR 1039.105, 40 CFR 1039.107, 40 CFR 1039.115, and table 2 to this subpart, for 2008 model year and later engines.*

(2) For engines with a maximum engine power greater than or equal to 37 KW (50 HP), the certification emission standards for new nonroad CI engines for the same model year and maximum engine power in 40 CFR 89.112 and 40 CFR 89.113 for all pollutants beginning in model year 2007.

This section is applicable as referenced by §60.4205(b). The two engines being installed have been designed to meet the emission standards of 40 CFR 89.112 and 40 CFR 89.113.

(b) *Stationary CI internal combustion engine manufacturers must certify their 2007 model year and later emergency stationary CI ICE with a maximum engine power greater than 2,237 KW (3,000 HP) and a displacement of less than 10 liters per cylinder that are not fire pump engines to the emission standards specified in paragraphs (b)(1) through (2) of this section.*

(1) *For 2007 through 2010 model years, the emission standards in table 1 to this subpart, for all pollutants, for the same maximum engine power.*

(2) *For 2011 model year and later, the certification emission standards for new nonroad CI engines for engines of the same model year and maximum engine power in 40 CFR 89.112 and 40 CFR 89.113 for all pollutants.*

(c) *[Reserved]*

(d) *Beginning with the model years in table 3 to this subpart, stationary CI internal combustion engine manufacturers must certify their fire pump stationary CI ICE to the emission standards in table 4 to this subpart, for all pollutants, for the same model year and NFPA nameplate power.*

(e) *Stationary CI internal combustion engine manufacturers must certify the following emergency stationary CI ICE that are not fire pump engines to the certification emission standards for new marine CI engines in 40 CFR 94.8, as applicable, for all pollutants, for the same displacement and maximum engine power:*

(1) *Their 2007 model year through 2012 emergency stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder;*

(2) *Their 2013 model year and later emergency stationary CI ICE with a maximum engine power greater than or equal to 3,700 KW (4,958 HP) and a displacement of greater than or equal to 10 liters per cylinder and less than 15 liters per cylinder;*

(3) *Their 2013 model year emergency stationary CI ICE with a displacement of greater than or equal to 15 liters per cylinder and less than 30 liters per cylinder; and*

(4) *Their 2014 model year and later emergency stationary CI ICE with a maximum engine power greater than or equal to 2,000 KW (2,682 HP) and a displacement of greater than or equal to 15 liters per cylinder and less than 30 liters per cylinder.*

(f) *Stationary CI internal combustion engine manufacturers must certify the following emergency stationary CI ICE to the certification emission standards and other requirements applicable to Tier 3 new marine CI engines in 40 CFR 1042.101, 40 CFR 1042.107, 40 CFR 1042.115, 40 CFR 1042.120, and 40 CFR 1042.145, for all pollutants, for the same displacement and maximum engine power:*

(1) *Their 2013 model year and later emergency stationary CI ICE with a maximum engine power less than 3,700 KW (4,958 HP) and a displacement of greater than or equal to 10 liters per cylinder and less than 15 liters per cylinder; and*

(2) *Their 2014 model year and later emergency stationary CI ICE with a maximum engine power less than 2,000 KW (2,682 HP) and a displacement of greater than or equal to 15 liters per cylinder and less than 30 liters per cylinder.*

(g) *Notwithstanding the requirements in paragraphs (a) through (d) of this section, stationary emergency CI internal combustion engines identified in paragraphs (a) and (c) may be certified to the provisions of 40 CFR part*

94 or, if Table 2 to 40 CFR 1042.101 identifies Tier 3 standards as being applicable, the requirements applicable to Tier 3 engines in 40 CFR part 1042, if the engines will be used solely in either or both of the following locations:

- (1) Areas of Alaska not accessible by the FAHS; and
- (2) Marine offshore installations.

(h) Notwithstanding the requirements in paragraphs (a) through (f) of this section, stationary CI internal combustion engine manufacturers are not required to certify reconstructed engines; however manufacturers may elect to do so. The reconstructed engine must be certified to the emission standards specified in paragraphs (a) through (f) of this section that are applicable to the model year, maximum engine power and displacement of the reconstructed emergency stationary CI ICE.

§60.4205 What emission standards must I meet for emergency engines if I am an owner or operator of a stationary CI internal combustion engine?

(a) Owners and operators of pre-2007 model year emergency stationary CI ICE with a displacement of less than 10 liters per cylinder that are not fire pump engines must comply with the emission standards in Table 1 to this subpart. Owners and operators of pre-2007 model year emergency stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder that are not fire pump engines must comply with the emission standards in 40 CFR 94.8(a)(1).

(b) Owners and operators of 2007 model year and later emergency stationary CI ICE with a displacement of less than 30 liters per cylinder that are not fire pump engines must comply with the emission standards for new nonroad CI engines in §60.4202, for all pollutants, for the same model year and maximum engine power for their 2007 model year and later emergency stationary CI ICE.

The two engines being installed have been designed to meet the emission standards of 40 CFR 89.112 and 40 CFR 89.113 as specified in §60.4202.

(c) Owners and operators of fire pump engines with a displacement of less than 30 liters per cylinder must comply with the emission standards in table 4 to this subpart, for all pollutants.

(d) Owners and operators of emergency stationary CI engines with a displacement of greater than or equal to 30 liters per cylinder must meet the requirements in this section.

(1) For engines installed prior to January 1, 2012, limit the emissions of NO_x in the stationary CI internal combustion engine exhaust to the following:

- (i) 17.0 g/KW-hr (12.7 g/HP-hr) when maximum engine speed is less than 130 rpm;
- (ii) $45 \cdot n^{-0.2}$ g/KW-hr ($34 \cdot n^{-0.2}$ g/HP-hr) when maximum engine speed is 130 or more but less than 2,000 rpm, where n is maximum engine speed; and
- (iii) 9.8 g/kW-hr (7.3 g/HP-hr) when maximum engine speed is 2,000 rpm or more.

(2) For engines installed on or after January 1, 2012, limit the emissions of NO_x in the stationary CI internal combustion engine exhaust to the following:

- (i) 14.4 g/KW-hr (10.7 g/HP-hr) when maximum engine speed is less than 130 rpm;
- (ii) $44 \cdot n^{-0.23}$ g/KW-hr ($33 \cdot n^{-0.23}$ g/HP-hr) when maximum engine speed is greater than or equal to 130 but less than 2,000 rpm and where n is maximum engine speed; and
- (iii) 7.7 g/KW-hr (5.7 g/HP-hr) when maximum engine speed is greater than or equal to 2,000 rpm.

(3) Limit the emissions of PM in the stationary CI internal combustion engine exhaust to 0.40 g/KW-hr (0.30 g/HP-hr).

(e) Owners and operators of emergency stationary CI ICE with a displacement of less than 30 liters per cylinder who conduct performance tests in-use must meet the NTE standards as indicated in §60.4212.

(f) Owners and operators of any modified or reconstructed emergency stationary CI ICE subject to this subpart must meet the emission standards applicable to the model year, maximum engine power, and displacement of the modified or reconstructed CI ICE that are specified in paragraphs (a) through (e) of this section.

§60.4206 How long must I meet the emission standards if I am an owner or operator of a stationary CI internal combustion engine?

Owners and operators of stationary CI ICE must operate and maintain stationary CI ICE that achieve the emission standards as required in §60.4204 and §60.4205 over the entire life of the engine.

The two engines being installed have been designed to meet the emission standards of 40 CFR 89.112 and 40 CFR 89.113 as specified in §60.4202. The engines are designed to meet the emission standards over the life of the engine.

§60.4207 What fuel requirements must I meet if I am an owner or operator of a stationary CI internal combustion engine subject to this subpart?

(a) Beginning October 1, 2007, owners and operators of stationary CI ICE subject to this subpart that use diesel fuel must use diesel fuel that meets the requirements of 40 CFR 80.510(a).

(b) Beginning October 1, 2010, owners and operators of stationary CI ICE subject to this subpart with a displacement of less than 30 liters per cylinder that use diesel fuel must use diesel fuel that meets the requirements of 40 CFR 80.510(b) for nonroad diesel fuel, except that any existing diesel fuel purchased (or otherwise obtained) prior to October 1, 2010, may be used until depleted.

The applicant shall only use No. 2 diesel fuel that meets the requirements of 40 CFR 80.510(b) for nonroad diesel fuel in the engines.

(c) [Reserved]

(d) Beginning June 1, 2012, owners and operators of stationary CI ICE subject to this subpart with a displacement of greater than or equal to 30 liters per cylinder are no longer subject to the requirements of paragraph (a) of this section, and must use fuel that meets a maximum per-gallon sulfur content of 1,000 parts per million (ppm).

(e) Stationary CI ICE that have a national security exemption under §60.4200(d) are also exempt from the fuel requirements in this section.

§60.4208 What is the deadline for importing or installing stationary CI ICE produced in previous model years?

(a) After December 31, 2008, owners and operators may not install stationary CI ICE (excluding fire pump engines) that do not meet the applicable requirements for 2007 model year engines.

The two engines being installed meet all requirements for 2007 model year engines.

(b) After December 31, 2009, owners and operators may not install stationary CI ICE with a maximum engine power of less than 19 KW (25 HP) (excluding fire pump engines) that do not meet the applicable requirements for 2008 model year engines.

(c) After December 31, 2014, owners and operators may not install non-emergency stationary CI ICE with a maximum engine power of greater than or equal to 19 KW (25 HP) and less than 56 KW (75 HP) that do not meet the applicable requirements for 2013 model year non-emergency engines.

(d) After December 31, 2013, owners and operators may not install non-emergency stationary CI ICE with a maximum engine power of greater than or equal to 56 KW (75 HP) and less than 130 KW (175 HP) that do not meet the applicable requirements for 2012 model year non-emergency engines.

(e) After December 31, 2012, owners and operators may not install non-emergency stationary CI ICE with a maximum engine power of greater than or equal to 130 KW (175 HP), including those above 560 KW (750 HP), that do not meet the applicable requirements for 2011 model year non-emergency engines.

(f) After December 31, 2016, owners and operators may not install non-emergency stationary CI ICE with a maximum engine power of greater than or equal to 560 KW (750 HP) that do not meet the applicable requirements for 2015 model year non-emergency engines.

(g) After December 31, 2018, owners and operators may not install non-emergency stationary CI ICE with a maximum engine power greater than or equal to 600 KW (804 HP) and less than 2,000 KW (2,680 HP) and a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder that do not meet the applicable requirements for 2017 model year non-emergency engines.

(h) In addition to the requirements specified in §§60.4201, 60.4202, 60.4204, and 60.4205, it is prohibited to import stationary CI ICE with a displacement of less than 30 liters per cylinder that do not meet the applicable requirements specified in paragraphs (a) through (g) of this section after the dates specified in paragraphs (a) through (g) of this section.

The two emergency IC engines each have displacement of less than 10 liters per cylinder and have a maximum engine power greater than 25 hp. Therefore, the engines meet the requirements specified in paragraph (a) of this section for engines newer than 2007 models.

(i) The requirements of this section do not apply to owners or operators of stationary CI ICE that have been modified, reconstructed, and do not apply to engines that were removed from one existing location and reinstalled at a new location.

§60.4209 What are the monitoring requirements if I am an owner or operator of a stationary CI internal combustion engine?

If you are an owner or operator, you must meet the monitoring requirements of this section. In addition, you must also meet the monitoring requirements specified in §60.4211.

(a) If you are an owner or operator of an emergency stationary CI internal combustion engine that does not meet the standards applicable to non-emergency engines, you must install a non-resettable hour meter prior to startup of the engine.

The two emergency IC engines will have non-resettable hour meters installed.

(b) If you are an owner or operator of a stationary CI internal combustion engine equipped with a diesel particulate filter to comply with the emission standards in §60.4204, the diesel particulate filter must be installed with a backpressure monitor that notifies the owner or operator when the high backpressure limit of the engine is approached.

§60.4211 What are my compliance requirements if I am an owner or operator of a stationary CI internal combustion engine?

(a) If you are an owner or operator and must comply with the emission standards specified in this subpart, you must do all of the following, except as permitted under paragraph (g) of this section:

- (1) Operate and maintain the stationary CI internal combustion engine and control device according to the manufacturer's emission-related written instructions;
- (2) Change only those emission-related settings that are permitted by the manufacturer; and
- (3) Meet the requirements of 40 CFR parts 89, 94 and/or 1068, as they apply to you.

The applicant will operate and maintain the engines according to the manufacturer's emission-related written instructions and change only those emission-related settings that are permitted by the manufacturer or comply with paragraph (g) of this section. The requirements of 40 CFR parts 89, 94, and/or 1068 will be met as they apply.

(b) If you are an owner or operator of a pre-2007 model year stationary CI internal combustion engine and must comply with the emission standards specified in §§60.4204(a) or 60.4205(a), or if you are an owner or operator of a CI fire pump engine that is manufactured prior to the model years in table 3 to this subpart and must comply with the emission standards specified in §60.4205(c), you must demonstrate compliance according to one of the methods specified in paragraphs (b)(1) through (5) of this section.

(1) Purchasing an engine certified according to 40 CFR part 89 or 40 CFR part 94, as applicable, for the same model year and maximum engine power. The engine must be installed and configured according to the manufacturer's specifications.

(2) Keeping records of performance test results for each pollutant for a test conducted on a similar engine. The test must have been conducted using the same methods specified in this subpart and these methods must have been followed correctly.

(3) Keeping records of engine manufacturer data indicating compliance with the standards.

(4) Keeping records of control device vendor data indicating compliance with the standards.

(5) Conducting an initial performance test to demonstrate compliance with the emission standards according to the requirements specified in §60.4212, as applicable.

(c) If you are an owner or operator of a 2007 model year and later stationary CI internal combustion engine and must comply with the emission standards specified in §60.4204(b) or §60.4205(b), or if you are an owner or operator of a CI fire pump engine that is manufactured during or after the model year that applies to your fire pump engine power rating in table 3 to this subpart and must comply with the emission standards specified in §60.4205(c), you must comply by purchasing an engine certified to the emission standards in §60.4204(b), or §60.4205(b) or (c), as applicable, for the same model year and maximum (or in the case of fire pumps, NFPA nameplate) engine power. The engine must be installed and configured according to the manufacturer's emission-related specifications, except as permitted in paragraph (g) of this section.

The two emergency IC engines each meet the emission standards in 60.4205(b) for the latest model year and maximum engine power. The engines will be installed and configured according to the manufacturer's emission-related specifications.

(d) If you are an owner or operator and must comply with the emission standards specified in §60.4204(c) or §60.4205(d), you must demonstrate compliance according to the requirements specified in paragraphs (d)(1) through (3) of this section.

(1) Conducting an initial performance test to demonstrate initial compliance with the emission standards as specified in §60.4213.

(2) Establishing operating parameters to be monitored continuously to ensure the stationary internal combustion engine continues to meet the emission standards. The owner or operator must petition the Administrator for approval of operating parameters to be monitored continuously. The petition must include the information described in paragraphs (d)(2)(i) through (v) of this section.

(i) Identification of the specific parameters you propose to monitor continuously;

(ii) A discussion of the relationship between these parameters and NO_x and PM emissions, identifying how the emissions of these pollutants change with changes in these parameters, and how limitations on these parameters will serve to limit NO_x and PM emissions;

(iii) A discussion of how you will establish the upper and/or lower values for these parameters which will establish the limits on these parameters in the operating limitations;

(iv) A discussion identifying the methods and the instruments you will use to monitor these parameters, as well as the relative accuracy and precision of these methods and instruments; and

(v) A discussion identifying the frequency and methods for recalibrating the instruments you will use for monitoring these parameters.

(3) For non-emergency engines with a displacement of greater than or equal to 30 liters per cylinder, conducting annual performance tests to demonstrate continuous compliance with the emission standards as specified in §60.4213.

(e) If you are an owner or operator of a modified or reconstructed stationary CI internal combustion engine and must comply with the emission standards specified in §60.4204(e) or §60.4205(f), you must demonstrate compliance according to one of the methods specified in paragraphs (e)(1) or (2) of this section.

(1) Purchasing, or otherwise owning or operating, an engine certified to the emission standards in §60.4204(e) or §60.4205(f), as applicable.

(2) Conducting a performance test to demonstrate initial compliance with the emission standards according to the requirements specified in §60.4212 or §60.4213, as appropriate. The test must be conducted within 60 days after the engine commences operation after the modification or reconstruction.

(f) If you own or operate an emergency stationary ICE, you must operate the emergency stationary ICE according to the requirements in paragraphs (f)(1) through (3) of this section. In order for the engine to be considered an emergency stationary ICE under this subpart, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in paragraphs (f)(1) through (3) of this section, is prohibited. If you do not operate the engine according to the requirements in paragraphs (f)(1) through (3) of this section, the engine will not be considered an emergency engine under this subpart and must meet all requirements for non-emergency engines.

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

(2) You may operate your emergency stationary ICE for any combination of the purposes specified in paragraphs (f)(2)(i) through (iii) of this section for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraph (f)(3) of this section counts as part of the 100 hours per calendar year allowed by this paragraph (f)(2).

(i) Emergency stationary ICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. 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 ICE beyond 100 hours per calendar year.

(ii) Emergency stationary ICE may be operated for emergency demand response for periods in which the Reliability Coordinator under the North American Electric Reliability Corporation (NERC) Reliability Standard EOP-002-3, Capacity and Energy Emergencies (incorporated by reference, see §60.17), or other authorized entity as determined by the Reliability Coordinator, has declared an Energy Emergency Alert Level 2 as defined in the NERC Reliability Standard EOP-002-3.

(iii) Emergency stationary ICE may be operated for periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency.

(3) Emergency stationary ICE may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in paragraph (f)(2) of this section. Except as provided in paragraph (f)(3)(i) of this section, the 50 hours per calendar year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

(i) The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the following conditions are met:

(A) The engine is dispatched by the local balancing authority or local transmission and distribution system operator;

(B) The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region.

(C) The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines.

(D) The power is provided only to the facility itself or to support the local transmission and distribution system.

(E) The owner or operator identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the engine owner or operator.

The applicant will only operate the new emergency engines during emergency operations, and for maintenance and testing. The engines will not be used for emergency demand response. The engines will operate for a total of 100 hours per year or less for maintenance and testing. The operation in non-emergency situations will be limited to 50 hours of the 100 hour of operation per year.

(ii) [Reserved]

(g) If you do not install, configure, operate, and maintain your engine and control device according to the manufacturer's emission-related written instructions, or you change emission-related settings in a way that is not permitted by the manufacturer, you must demonstrate compliance as follows:

(1) If you are an owner or operator of a stationary CI internal combustion engine with maximum engine power less than 100 HP, you must keep a maintenance plan and records of conducted maintenance to demonstrate compliance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, if you do not install and configure the engine and control device according to the manufacturer's emission-related written instructions, or you change the emission-related settings in a way that is not permitted by the manufacturer, you must conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of such action.

(2) If you are an owner or operator of a stationary CI internal combustion engine greater than or equal to 100 HP and less than or equal to 500 HP, you must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, you must conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of startup, or within 1 year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within 1 year after you change emission-related settings in a way that is not permitted by the manufacturer.

(3) If you are an owner or operator of a stationary CI internal combustion engine greater than 500 HP, you must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, you must conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of startup, or within 1 year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within 1 year after you change emission-related settings in a way that is not permitted by the manufacturer. You must conduct subsequent performance testing every 8,760 hours of engine operation or 3 years, whichever comes first, thereafter to demonstrate compliance with the applicable emission standards.

The applicant will install, configure, operate, and maintain the engines according to the manufacturer's emission-related written instructions or keep a maintenance plan and maintenance records on site as well as operate and maintain the engines to the extent possible to minimize emissions. If the latter option is chosen, the applicant will conduct an initial performance test on each engine within one year of the startup and every three years thereafter.

§60.4214 What are my notification, reporting, and recordkeeping requirements if I am an owner or operator of a stationary CI internal combustion engine?

(a) Owners and operators of non-emergency stationary CI ICE that are greater than 2,237 KW (3,000 HP), or have a displacement of greater than or equal to 10 liters per cylinder, or are pre-2007 model year engines that are greater than 130 KW (175 HP) and not certified, must meet the requirements of paragraphs (a)(1) and (2) of this section.

(1) Submit an initial notification as required in §60.7(a)(1). The notification must include the information in paragraphs (a)(1)(i) through (v) of this section.

(i) Name and address of the owner or operator;

(ii) The address of the affected source;

(iii) Engine information including make, model, engine family, serial number, model year, maximum engine power, and engine displacement;

(iv) Emission control equipment; and

(v) Fuel used.

(2) Keep records of the information in paragraphs (a)(2)(i) through (iv) of this section.

(i) All notifications submitted to comply with this subpart and all documentation supporting any notification.

(ii) Maintenance conducted on the engine.

(iii) If the stationary CI internal combustion is a certified engine, documentation from the manufacturer that the engine is certified to meet the emission standards.

(iv) If the stationary CI internal combustion is not a certified engine, documentation that the engine meets the emission standards.

(b) If the stationary CI internal combustion engine is an emergency stationary internal combustion engine, the owner or operator is not required to submit an initial notification. Starting with the model years in table 5 to this subpart, if the emergency engine does not meet the standards applicable to non-emergency engines in the applicable model year, the owner or operator must keep records of the operation of the engine in emergency and non-emergency service that are recorded through the non-resettable hour meter. The owner must record the time of operation of the engine and the reason the engine was in operation during that time.

The applicant will maintain a log of engine operations for each engine, including the reason for the engine operation and the length of time of the operation.

(c) If the stationary CI internal combustion engine is equipped with a diesel particulate filter, the owner or operator must keep records of any corrective action taken after the backpressure monitor has notified the owner or operator that the high backpressure limit of the engine is approached.

(d) If you own or operate an emergency stationary CI ICE with a maximum engine power more than 100 HP that operates or is contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in §60.4211(f)(2)(ii) and (iii) or that operates for the purposes specified in §60.4211(f)(3)(i), you must submit an annual report according to the requirements in paragraphs (d)(1) through (3) of this section.

(1) The report must contain the following information:

(i) Company name and address where the engine is located.

(ii) Date of the report and beginning and ending dates of the reporting period.

(iii) Engine site rating and model year.

(iv) Latitude and longitude of the engine in decimal degrees reported to the fifth decimal place.

(v) Hours operated for the purposes specified in §60.4211(f)(2)(ii) and (iii), including the date, start time, and end time for engine operation for the purposes specified in §60.4211(f)(2)(ii) and (iii).

(vi) Number of hours the engine is contractually obligated to be available for the purposes specified in §60.4211(f)(2)(ii) and (iii).

(vii) Hours spent for operation for the purposes specified in §60.4211(f)(3)(i), including the date, start time, and end time for engine operation for the purposes specified in §60.4211(f)(3)(i). The report must also identify the entity that dispatched the engine and the situation that necessitated the dispatch of the engine.

(2) The first annual report must cover the calendar year 2015 and must be submitted no later than March 31, 2016. Subsequent annual reports for each calendar year must be submitted no later than March 31 of the following calendar year.

(3) The annual report must be submitted electronically using the subpart specific reporting form in the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) (www.epa.gov/cdx). However, if the reporting form specific to this subpart is not available in CEDRI at the time that the report is due, the written report must be submitted to the Administrator at the appropriate address listed in §60.4.

NESHAP Applicability (40 CFR 61)

The facility is not subject to any NESHAP requirements in 40 CFR 61.

MACT Applicability (40 CFR 63)

The facility operates two emergency IC engines for which the following NESHAP requirements apply:

40 CFR 63, Subpart ZZZZ.....National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

The applicable requirements of the subpart are underlined for identification.

§63.6580 *What is the purpose of subpart ZZZZ?*

Subpart ZZZZ establishes national emission limitations and operating limitations for hazardous air pollutants (HAP) emitted from stationary reciprocating internal combustion engines (RICE) located at major and area sources of HAP emissions. This subpart also establishes requirements to demonstrate initial and continuous compliance with the emission limitations and operating limitations.

§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 differ 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.

(b) A major source of HAP emissions is a plant site that emits or has the potential to emit any single HAP at a rate of 10 tons (9.07 megagrams) or more per year or any combination of HAP at a rate of 25 tons (22.68 megagrams) or more per year, except that for oil and gas production facilities, a major source of HAP emissions is determined for each surface site.

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

The applicant will construct two stationary emergency IC engines at an area source of HAP emissions. These engines are not being tested at a stationary RICE test cell/stand.

(d) If you are an owner or operator of an area source subject to this subpart, your status as an entity subject to a standard or other requirements under this subpart does not subject you to the obligation to obtain a permit under 40 CFR part 70 or 71, provided you are not required to obtain a permit under 40 CFR 70.3(a) or 40 CFR 71.3(a) for a reason other than your status as an area source under this subpart. Notwithstanding the previous sentence, you must continue to comply with the provisions of this subpart as applicable.

(e) If you are an owner or operator of a stationary RICE used for national security purposes, you may be eligible to request an exemption from the requirements of this subpart as described in 40 CFR part 1068, subpart C.

(f) The emergency stationary RICE listed in paragraphs (f)(1) through (3) of this section are not subject to this subpart. The stationary RICE must meet the definition of an emergency stationary RICE in §63.6675, which includes operating according to the provisions specified in §63.6640(f).

(1) Existing residential emergency stationary RICE located at an area source of HAP emissions that do not operate or are not contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in §63.6640(f)(2)(ii) and (iii) and that do not operate for the purpose specified in §63.6640(f)(4)(ii).

(2) Existing commercial emergency stationary RICE located at an area source of HAP emissions that do not operate or are not contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in §63.6640(f)(2)(ii) and (iii) and that do not operate for the purpose specified in §63.6640(f)(4)(ii).

(3) Existing institutional emergency stationary RICE located at an area source of HAP emissions that do not operate or are not contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in §63.6640(f)(2)(ii) and (iii) and that do not operate for the purpose specified in §63.6640(f)(4)(ii).

Per §63.6675 the definition of Institutional emergency stationary RICE means an 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.

Emergency IC Engines 4 and 5 are institutional emergency stationary RICE located at an area source of HAP emissions. However, the two engines will be installed after 2006 and are not considered existing engines. Therefore, the two engines are not exempt from this subpart under (f).

§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.

(i) For stationary RICE with a site rating of more than 500 brake horsepower (HP) located at a major source of HAP emissions, a stationary RICE is existing if you commenced construction or reconstruction of the stationary RICE before December 19, 2002.

(ii) For stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions, a stationary RICE is existing if you commenced construction or reconstruction of the stationary RICE before June 12, 2006.

(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.

(iv) A change in ownership of an existing stationary RICE does not make that stationary RICE a new or reconstructed stationary RICE.

(2) New stationary RICE. (i) A stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions is new if you commenced construction of the stationary RICE on or after December 19, 2002.

(ii) A stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions is new if you commenced construction of the stationary RICE on or after June 12, 2006.

(iii) A stationary RICE located at an area source of HAP emissions is new if you commenced construction of the stationary RICE on or after June 12, 2006.

The applicant will construct two new emergency IC engines at an area source of HAP emissions. These engines will be installed after 2006 and are considered new engines under this rule.

(3) Reconstructed stationary RICE. (i) A stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions is reconstructed if you meet the definition of reconstruction in §63.2 and reconstruction is commenced on or after December 19, 2002.

(ii) A stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions is reconstructed if you meet the definition of reconstruction in §63.2 and reconstruction is commenced on or after June 12, 2006.

(iii) A stationary RICE located at an area source of HAP emissions is reconstructed if you meet the definition of reconstruction in §63.2 and reconstruction is commenced on or after June 12, 2006.

(b) Stationary RICE subject to limited requirements. (1) An affected source which meets either of the criteria in paragraphs (b)(1)(i) through (ii) of this section does not have to meet the requirements of this subpart and of subpart A of this part except for the initial notification requirements of §63.6645(f).

(i) The stationary RICE is 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 does not operate or is not contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in §63.6640(f)(2)(ii) and (iii).

(ii) The stationary RICE is a new or reconstructed limited use stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions.

(2) A new or reconstructed stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions which combusts landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis must meet the initial notification requirements of §63.6645(f) and the requirements of §§63.6625(c), 63.6650(g), and 63.6655(c). These stationary RICE do not have to meet the emission limitations and operating limitations of this subpart.

(3) The following stationary RICE do not have to meet the requirements of this subpart and of subpart A of this part, including initial notification requirements:

(i) Existing spark ignition 2 stroke lean burn (2SLB) stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions;

(ii) Existing spark ignition 4 stroke lean burn (4SLB) stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions;

(iii) Existing emergency stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions that does not operate or is not contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in §63.6640(f)(2)(ii) and (iii).

(iv) Existing limited use stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions;

(v) Existing stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions that combusts landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis;

(c) Stationary RICE subject to Regulations under 40 CFR Part 60. An affected source that meets any of the criteria in paragraphs (c)(1) through (7) of this section must meet the requirements of this part by meeting the requirements of 40 CFR part 60 subpart IIII, for compression ignition engines or 40 CFR part 60 subpart JJJJ, for spark ignition engines. No further requirements apply for such engines under this part.

(1) A new or reconstructed stationary RICE located at an area source;

The applicant's two new emergency IC engines are subject to §63.6590(c)(1) per §63.6585(c) and §63.6590(a)(2)(iii) above. Therefore, the engines must comply with Subpart ZZZZ by complying with 40 CFR Part 60 Subpart IIII

(2) A new or reconstructed 2SLB stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions;

(3) A new or reconstructed 4SLB stationary RICE with a site rating of less than 250 brake HP located at a major source of HAP emissions;

(4) A new or reconstructed spark ignition 4 stroke rich burn (4SRB) stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions;

(5) A new or reconstructed stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions which combusts landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis;

(6) A new or reconstructed emergency or limited use stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions;

(7) A new or reconstructed compression ignition (CI) stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions.

Permit Conditions Review

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

Revised Permit Condition 1.1

The permit condition has been revised to include the two new emergency IC engines and the removal of the three previously permitted engines.

Revised Table 1.1

The table has been updated to include the two new emergency IC engines and the removal of the three previously permitted engines.

Revised Permit Condition 3.1

The permit condition has been revised to include the two new emergency IC engines and the removal of the three previously permitted engines.

Revised Table 3.1

The table has been updated to include the two new emergency IC engines and the removal of the three previously permitted engines.

Revised Permit Condition 3.3

The permit condition has been revised to include Emergency IC Engine 4 and Emergency IC Engine 5 and the removal of the three previously permitted engines.

Revised Table 3.2

The table has been updated to include the criteria pollutant emissions limits for the two new emergency IC engines and the removal of the emissions limits for the three previously permitted engines.

Deleted Permit Condition 3.5

This permit condition has been deleted because 40 CFR 60 subpart IIII, which is applicable to the two new emergency IC engines, specifies a more stringent maximum sulfur content of 15 ppm. The 40 CFR 60 subpart IIII requirement is established in Permit Condition 3.9.

Renumbered Permit Condition 3.6

Due to the deletion of Permit Condition 3.5, Permit Condition 3.6 has been renumbered to be Permit Condition 3.5.

New Permit Conditions 3.6 through 3.13

Emergency IC Engine 4 and Emergency IC Engine 5 are subject to 40 CFR 60 Subpart IIII. These permit conditions outline the requirements for the engines under this subpart.

PUBLIC REVIEW

Public Comment Opportunity

An opportunity for public comment period on the application was provided in accordance with IDAPA 58.01.01.209.01.c or IDAPA 58.01.01.404.01.c. During this time, there were no comments on the application and there was not a request for a public comment period on DEQ's proposed action. Refer to the chronology for public comment opportunity dates.

APPENDIX A – EMISSIONS INVENTORIES

St. Joseph Regional Medical Center
Engine Emission Calculations

By: JEP
ChE: JH

Engines

Pollutant	Emission Factors		Emergency IC Engine 4 2000 kW 2922.00 bhp 20.45 MMBtu/hr ¹ 500 hr/year		Emergency IC Engine 5 2000 kW 2922.00 bhp 20.45 MMBtu/hr ¹ 500 hr/year		Annualized Hourly Emissions			Total Hourly Limited Emissions (lb/hr)
	Factor ¹ (lb/hr-hr)	Factor ² (lb/MMBtu)	20.45 MMBtu/hr ¹ 500 hr/year		20.45 MMBtu/hr ¹ 500 hr/year		Emergency IC Engine 4 (lb/hr)	Emergency IC Engine 5 (lb/hr)	Total all engines (lb/hr)	
			(lb/hr)	(ton/yr)	(lb/hr)	(ton/yr)				
PM	8.82E-05	--	0.258	0.064	0.258	0.064	0.015	0.015	0.029	0.515
PM ₁₀	8.82E-05	--	0.258	0.064	0.258	0.064	0.015	0.015	0.029	0.515
PM _{2.5}	8.82E-05	--	0.258	0.064	0.258	0.064	0.015	0.015	0.029	0.515
SO ₂	2.43E-04	--	0.709	0.177	0.709	0.177	0.040	0.040	0.081	1.417
VOC ⁴	2.43E-04	--	0.709	0.177	0.709	0.177	0.040	0.040	0.081	1.417
CO	3.97E-04	--	1.160	0.290	1.160	0.290	0.066	0.066	0.132	2.319
NO _x	1.17E-02	--	34.142	8.536	34.142	8.536	1.949	1.949	3.898	68.284
Acetaldehyde	--	2.52E-05	5.15E-04	1.29E-04	5.15E-04	1.29E-04	2.94E-05	2.94E-05	5.89E-05	1.03E-03
Acrolein	--	7.88E-06	1.61E-04	4.03E-05	1.61E-04	4.03E-05	9.20E-06	9.20E-06	1.84E-05	3.22E-04
Benzene	--	7.76E-04	1.59E-02	3.97E-03	1.59E-02	3.97E-03	9.06E-04	9.06E-04	1.81E-03	3.17E-02
Formaldehyde	--	7.89E-05	1.61E-03	4.03E-04	1.61E-03	4.03E-04	9.21E-05	9.21E-05	1.84E-04	3.23E-03
Naphthalene	--	1.30E-04	2.66E-03	6.65E-04	2.66E-03	6.65E-04	1.52E-04	1.52E-04	3.04E-04	5.32E-03
PAH	--	2.12E-04	4.34E-03	1.08E-03	4.34E-03	1.08E-03	2.48E-04	2.48E-04	4.95E-04	8.67E-03
Toluene	--	2.81E-04	5.75E-03	1.44E-03	5.75E-03	1.44E-03	3.28E-04	3.28E-04	6.56E-04	1.15E-02
Xylenes	--	1.93E-04	3.95E-03	9.87E-04	3.95E-03	9.87E-04	2.25E-04	2.25E-04	4.51E-04	7.90E-03
Total HAP	--	--	--	8.71E-03	--	8.71E-03	--	--	--	--

1. Emission Factor from manufacturer provided specification sheet.
2. Emission factor per AP-42 Section 3.4, Tables 3.4-1, 3.4-2, 3.4-3, and 3.4-4 (10/96).
3. MMBtu/hr estimated using AP-42 conversion factor of 7,000 Btu/hp-hr from Section 3.3 Table 3.3-1 (10/96).
4. VOC is set equal to Total Unburned Hydrocarbons (HC).

St. Joseph Regional Medical Center
Engine Emission Calculations

By: JEP
ChE: JH

Engines Continued

Speciated PAH Emissions

Pollutant	Emission Factors ² (lb/MMBtu)	Emergency IC Engine 4 2000 kW 2922.00 bhp 20.45 MMBtu/hr ¹ 500 hr/year		Emergency IC Engine 5 2000 kW 2922.00 bhp 20.45 MMBtu/hr ¹ 500 hr/year		Annualized Hourly Emissions			Total Hourly Limited Emissions (lb/hr)
		20.45 MMBtu/hr ¹ 500 hr/year		20.45 MMBtu/hr ¹ 500 hr/year		Emergency IC Engine 4 (lb/hr)	Emergency IC Engine 5 (lb/hr)	Total all engines (lb/hr)	
		(lb/hr)	(ton/yr)	(lb/hr)	(ton/yr)				
Acenaphthylene	9.23E-06	1.89E-04	4.72E-05	1.89E-04	4.72E-05	1.08E-05	1.08E-05	2.16E-05	3.78E-04
Acenaphthene	4.68E-06	9.57E-05	2.39E-05	9.57E-05	2.39E-05	5.46E-06	5.46E-06	1.09E-05	1.91E-04
Fluorene	1.28E-05	2.62E-04	6.55E-05	2.62E-04	6.55E-05	1.49E-05	1.49E-05	2.99E-05	5.24E-04
Phenanthrene	4.08E-05	8.35E-04	2.09E-04	8.35E-04	2.09E-04	4.76E-05	4.76E-05	9.53E-05	1.67E-03
Anthracene	1.23E-06	2.52E-05	6.29E-06	2.52E-05	6.29E-06	1.44E-06	1.44E-06	2.87E-06	5.03E-05
Fluoranthene	4.03E-06	8.24E-05	2.06E-05	8.24E-05	2.06E-05	4.70E-06	4.70E-06	9.41E-06	1.65E-04
Pyrene	3.71E-06	7.59E-05	1.90E-05	7.59E-05	1.90E-05	4.33E-06	4.33E-06	8.66E-06	1.52E-04
POM (7-PAH group)	--	9.20E-05	2.30E-05	9.20E-05	2.30E-05	5.25E-06	5.25E-06	1.05E-05	1.84E-04
Benzo(a)anthracene	6.22E-07	1.27E-05	3.18E-06	1.27E-05	3.18E-06	7.26E-07	7.26E-07	1.45E-06	2.54E-05
Chrysene	1.53E-06	3.13E-05	7.82E-06	3.13E-05	7.82E-06	1.79E-06	1.79E-06	3.57E-06	6.28E-05
Benzo(b)fluoranthene	1.11E-06	2.27E-05	5.68E-06	2.27E-05	5.68E-06	1.30E-06	1.30E-06	2.59E-06	4.54E-05
Benzo(k)fluoranthene	2.18E-07	4.46E-06	1.11E-06	4.46E-06	1.11E-06	2.55E-07	2.55E-07	5.09E-07	8.92E-06
Benzo(a)pyrene	2.57E-07	5.26E-06	1.31E-06	5.26E-06	1.31E-06	3.00E-07	3.00E-07	6.00E-07	1.05E-05
Indeno(1,2,3-cd)pyrene	4.14E-07	8.47E-06	2.12E-06	8.47E-06	2.12E-06	4.83E-07	4.83E-07	9.67E-07	1.69E-05
Dibenzo(a,h)anthracene	3.46E-07	7.08E-06	1.77E-06	7.08E-06	1.77E-06	4.04E-07	4.04E-07	8.08E-07	1.42E-05
Benzo(g,h,i)perylene	5.56E-07	1.14E-05	2.84E-06	1.14E-05	2.84E-06	6.49E-07	6.49E-07	1.30E-06	2.27E-05

2. Emission factor per AP-42 Section 3.4, Tables 3.4-1, 3.4-2, 3.4-3, and 3.4-4 (10/96).
3. MMBtu/hr estimated using AP-42 conversion factor of 7,000 Btu/hp-hr from Section 3.3 Table 3.3-1 (10/96).

St. Joseph Regional Medical Center
Greenhouse Gas Emission Calculations

By: JEP
ChE: JH

GHG PTE Calculations

	CO ₂ (lb CO ₂ /MMBtu) ¹	CH ₄ (lb CH ₄ /MMBtu) ²	N ₂ O (lb N ₂ O/MMBtu) ²	Unit ³	Units
Diesel	143.05	6.61E-03	1.32E-03	0.118	MMBtu ¹
Natural Gas	116.88	2.20E-03	2.20E-04	0.001626	MMBtu ¹

1. 40 CFR Part 99 Table C-1, Revised 11/23/2013
2. 40 CFR Part 99 Table C-2, Revised 11/23/2013

	CO ₂	CH ₄	N ₂ O
St. Joseph Regional Medical Center (O&M)	1	25	258

3. 40 CFR Part 99 Table A-1, Revised 11/23/2013

Equipment	Fuel	Max Fuel Use ⁴ (lb/hr scf/hr)	Maximum Annual Operating Hours	Maximum Potential Fuel Usage (MMBtu/yr)	Non-biogenic Greenhouse Gas PTE			Non-biogenic Greenhouse Gas PTE CO ₂ e Basis			Total CO ₂ e PTE (lb/yr)	Total CO ₂ e PTE (ton/yr)
					CO ₂	CH ₄	N ₂ O	CO ₂	CH ₄	N ₂ O		
					(lb/yr)	(lb/yr)	(lb/yr)	(lb/yr)	(lb/yr)	(lb/yr)		
Boiler 1 (C80A)	Natural Gas	10,178 scf/hr	8,760	91,938	5,353.9	0.12	0.013	1,353.8	2.53	10.0	5,353.9	5,429.344
	Diesel	0.275 Mgal/hr	48	532	43.9	0.002	0.003	40.3	0.04	0.09	41.67	4,325.107
Boiler 2 (C80B)	Natural Gas	8,187 scf/hr	8,760	73,315	4,287.8	0.08	0.009	4,287.8	2.02	2.408	4,292.248	4,325.107
	Diesel	0.262 Mgal/hr	48	422	32.7	0.001	0.003	32.7	0.03	0.09	33.42	2,703.192
Boiler 3 (C80C)	Natural Gas	6,021 scf/hr	8,760	48,813	2,873.9	0.05	0.005	2,873.9	1.26	1.505	2,882.653	2,703.192
	Diesel	0.273 Mgal/hr	48	251	20.5	0.001	0.003	20.5	0.02	0.049	20.919	2,703.192
Boiler 4 (C80D)	Natural Gas	1,918 scf/hr	8,760	16,813	2,873.9	0.05	0.005	2,873.9	1.26	1.505	2,882.653	2,703.192
	Diesel	0.373 Mgal/hr	48	251	20.5	0.001	0.003	20.5	0.02	0.049	20.919	3,180.541
Boiler 5 (O81)	Natural Gas	6,000 scf/hr	8,760	53,827	3,184.1	0.05	0.005	3,184.1	1.49	1.771	3,187.349	3,180.541
	Diesel	0.242 Mgal/hr	48	264	21.1	0.001	0.003	21.1	0.02	0.056	21.193	3,180.541
Boiler 6 (O82)	Natural Gas	6,000 scf/hr	8,760	53,827	3,184.1	0.05	0.005	3,184.1	1.49	1.771	3,187.349	3,180.541
	Diesel	0.242 Mgal/hr	48	264	21.1	0.001	0.003	21.1	0.02	0.056	21.193	3,180.541
Boiler 7 (O83)	Natural Gas	6,000 scf/hr	8,760	53,827	3,184.1	0.05	0.005	3,184.1	1.49	1.771	3,187.349	3,180.541
	Diesel	0.242 Mgal/hr	48	264	21.1	0.001	0.003	21.1	0.02	0.056	21.193	3,180.541
Emergency IC Engine 4	Diesel	0.1414 Mgal/hr	500	3,757	795.4	0.033	0.0045	795.4	0.81	1.523	798.155	798.155
	Diesel	0.1414 Mgal/hr	500	3,757	795.4	0.033	0.0045	795.4	0.81	1.523	798.155	798.155
Emergency IC Engine 5	Diesel	0.1414 Mgal/hr	500	3,757	795.4	0.033	0.0045	795.4	0.81	1.523	798.155	798.155
	Diesel	0.1414 Mgal/hr	500	3,757	795.4	0.033	0.0045	795.4	0.81	1.523	798.155	798.155
Facility-wide Total (lb/yr)											26,275.923	

⁴ Fuel use for Boilers 1-7 and Engines from manufacturer specifications. Fuel use for Boilers 1-4 calculated using fuel provided in 40 CFR Part 99 Table C-1.

APPENDIX B – AMBIENT AIR QUALITY IMPACT ANALYSES

Installation of emergency internal combustion engines is an action that is exempt from PTC requirements as per IDAPA 58.01.01.222.01.d. (Idaho Air Rules Section 222.01.d.). Since this activity is exempt from PTC requirements of Idaho Air Rules Section 201, this permitting action represents a permit revision rather than a “modification” as defined by Idaho Air Rules Section 006.68 and 201. Therefore, the NAAQS and TAPs compliance demonstration requirements of Idaho Air Rules Section 203.02 and 203.03 do not apply for issuance of the revised PTC.

APPENDIX C – FACILITY DRAFT COMMENTS

No comments were received from the facility.

APPENDIX D – PROCESSING FEE

PTC Fee Calculation

Instructions:

Fill in the following information and answer the following questions with a Y or N. Enter the emissions increases and decreases for each pollutant in the table.

Company: St. Joseph Regional Medical
 Address: 415 6th Street
 City: Lewiston
 State: ID
 Zip Code: 83501
 Facility Contact: Dennis Niehenke
 Title: Director of Facilities Management
 AIRS No.: 069-00015

- N Does this facility qualify for a general permit (i.e. concrete batch plant, hot-mix asphalt plant)? Y/N
- y Did this permit require engineering analysis? Y/N
- N Is this a PSD permit Y/N (IDAPA 58.01.01.205.04)

Emissions Inventory			
Pollutant	Annual Emissions Increase (T/yr)	Annual Emissions Reduction (T/yr)	Annual Emissions Change (T/yr)
NO _x	0.0	0	0.0
SO ₂	0.0	0	0.0
CO	0.0	0	0.0
PM10	0.0	0	0.0
VOC	0.0	0	0.0
TAPS/HAPS	0.0	0	0.0
Total:	0.0	0	0.0
Fee Due	\$ 1,000.00		