

**P4 Production, LLC**

RECEIVED

APR 08 2013

Soda Springs Plant  
1853 Highway 34  
P.O. Box 816  
Soda Springs, Idaho 83276-0816  
Phone: (208) 547-4300  
Fax: (208) 547-3312

DEPARTMENT OF ENVIRONMENTAL QUALITY  
STATE A Q PROGRAM

April 2, 2013

Air Quality Program Office – Application Processing  
Department of Environmental Quality  
1410 North Hilton  
Boise, Idaho 83706-1255

Subject: Application for a Permit to Construct for a 100KW Diesel Generator  
P4 Production, LLC  
Facility ID No. 029-00038

Dear Sir or Madam:

P4 Production, LLC (P4) is submitting this Permit to Construct application for a new 100KW diesel generator at their Rasmussen Mine Facility, ID No. 029-00038 near Soda Springs, Idaho.

The application includes the following attachments:

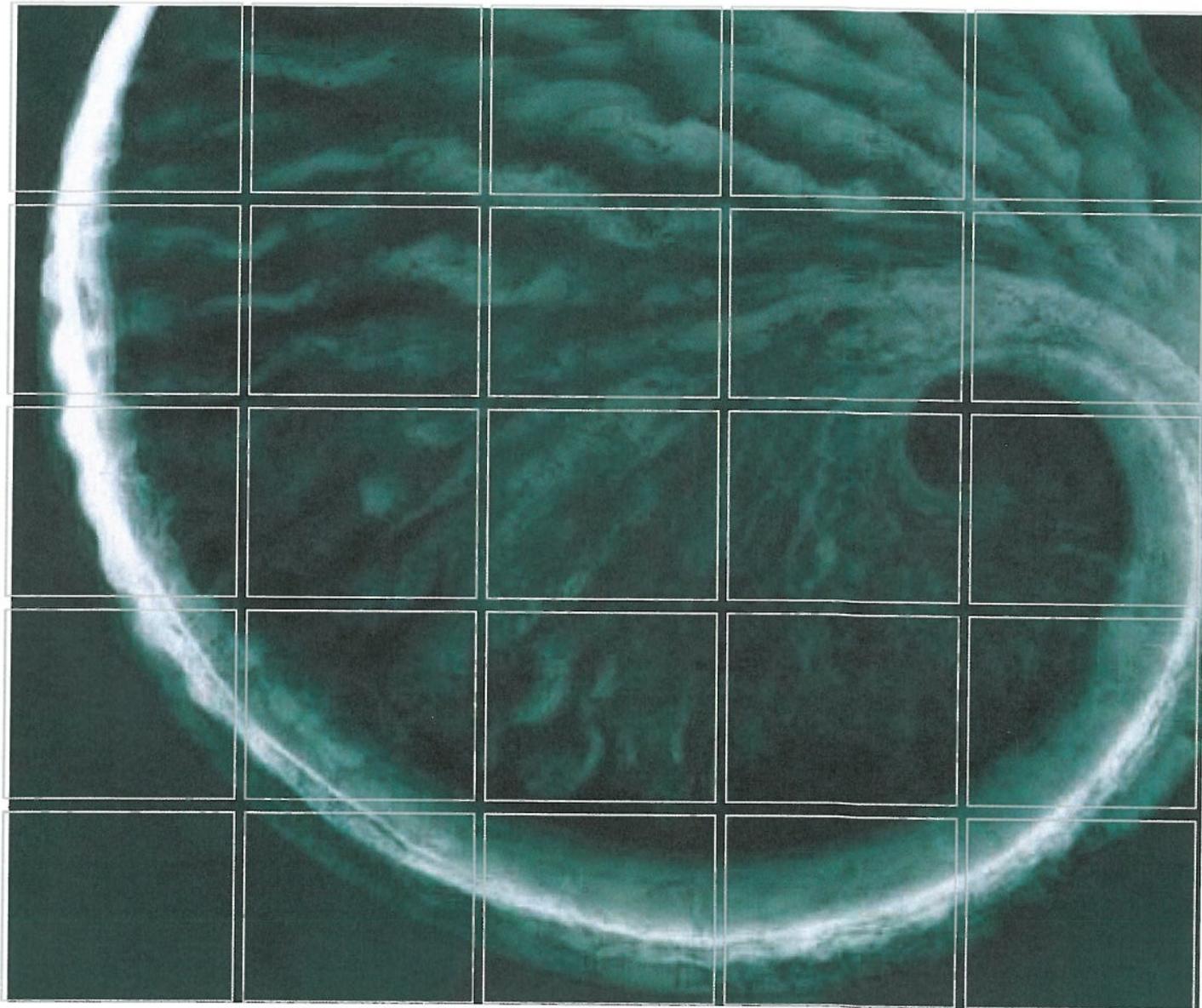
- Form CSPTC, Form GI, Form EU1, Forms EI, PP Plot Plan, Forms MI1 to MI4 Modeling, and Form FRA
- Minor Source Permit to Construct Application Completeness Checklist
- TAP Preconstruction Compliance Application Completeness Checklist
- Supplemental Application Document and Drawings
- Emissions Calculations
- Technical Support Document for Toxic Air Pollutant Air Quality Impact Analysis

If you have any additional questions, please don't hesitate to contact Ms. Rachel Roskelley by email at [Rachel.a.roskelley@monsanto.com](mailto:Rachel.a.roskelley@monsanto.com) or at 208-547-1248.

Sincerely,



Sheldon Alver  
V.P. Operations



## **Permit to Construct Application - New 100KW Generator at Smith Pond, South Rasmussen Mine**

**Prepared for:**  
Idaho Department of  
Environmental Quality

**P4 Production, LLC  
Soda Springs, Idaho**

March 12, 2013

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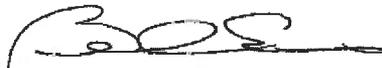
Idaho Department of Environmental Quality

**Permit to Construct Application -  
New 100KW Generator at Smith  
Pond, South Rasmussen Mine**

**P4 Production, LLC  
Soda Springs, Idaho**

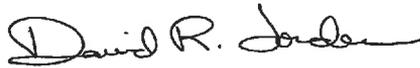
March 12, 2013

Project No. 0167507



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**Bernard Evans, P.E.**  
*Project Manager*



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**Dave R. Jordan, P.E.**  
*Principal-in-Charge*

**Environmental Resources Management**  
700 West Virginia Street, Suite 601  
Milwaukee, WI 53204

## 1.0

### *INTRODUCTION*

P4 Production, LLC (P4) is submitting a Permit to Construct application for a 100KW generator (Smith Pond Generator) planned at the South Rasmussen Mine approximately 18 miles north east of Soda Springs, Idaho. The site requires a generator to run evaporation devices at the Smith Pond site during the summer months. This application package includes the information necessary for the Idaho Department of Environmental Quality (DEQ) to process and issue the Permit to Construct (PTC) for this minor source.

## 1.1

### *APPLICATION SUMMARY*

The operation of the generator result in air emissions from the combustion of fuel in a 156.9 BHP Caterpillar diesel engine used to power the generator. This is a model year 2011 engine manufactured to meet the requirements of 40 CFR 60 Subpart IIII and 40 CFR 63 Subpart ZZZZ.

The engine will only be fueled with ultra-low sulfur diesel fuel as required by 40 CFR 80.510(b). Emissions of criteria pollutants from the engine are below the screening emission levels (ELs) for air dispersion modeling with the exception of NO<sub>x</sub>. Therefore, air dispersion modeling was performed to determine air quality impacts of NO<sub>x</sub> from the engine. As provided by IDAPA 58.01.01.210.20, modeling for toxic air pollutants (TAPs) was not required since the engine is subject to 40 CFR 60 Subpart IIII and 40 CFR 63 Subpart ZZZZ.

Section 2.0 of this application describes the physical characteristics of the existing facility and the Smith Pond Generator operations. Emissions are discussed in Section 3.0. Applicable requirements are presented in Section 4.0. Figure 1-1 is an aerial view of the site which identifies the proposed location of the Smith Pond Generator. Appendix A includes DEQ Permit to Construct Forms. Appendix B contains the air emissions calculations. Appendix C includes the detailed air quality impact analysis for NO<sub>x</sub> emissions.

**1.2**

***FEES***

The Permit to Construct Application Fee of \$1,000 will be submitted by P4 via the on-line payment system.

## 2.0

### *SMITH POND GENERATOR PROJECT*

P4 Production, LLC (P4) is submitting this PTC application for the installation of a diesel engine powered 100KW generator at the Smith Pond area located on the South Rasmussen Mine. The manufacturer's specification sheet for the engine is provided with this application package as Appendix D.

The South Rasmussen Mine is a phosphorous ore mine located in Caribou County, 18 miles northeast of Soda Springs, Idaho. P4 is planning to install an engine generator that will be used to run evaporation devices at the Smith Pond site during the summer months. The proposed generator is not an emergency generator. An aerial view of the facility is provided in Figure 1-1.

**3.0 EMISSIONS AND SUMMARY OF AIR QUALITY ANALYSIS**

**3.1 EMISSIONS OF CRITERIA POLLUTANTS FOR THIS PROJECT**

Table 3-1 summarizes the maximum emission rates of criteria pollutants from the Smith Pond Generator. Emissions from the new generator were estimated based on emission factors obtained from the engine vendor and other references and calculations are provided in Appendix B.

**Table 3-1 - Potential (PTE) Emissions from the Smith Pond Generator**

<b>Pollutant</b>	<b>Source PTE</b>
CO	0.297 lb/hr
	1.30 tons per year (tpy)
NO <sub>x</sub>	0.908 lb/hr
	3.977 tpy
SO <sub>2</sub>	0.006 lb/hr
	0.027 tpy
PM <sub>10</sub>	0.054 lb/hr
	0.237 tpy
PM <sub>2.5</sub>	0.0525 lb/hr
	0.230 tpy

**3.2 EMISSIONS OF TOXIC AIR POLLUTANTS FOR THIS PROJECT**

Table 3-2 summarizes the maximum toxic air pollutant (TAP) emission rates from the Smith Pond Generator. Detailed emission calculations are included in Appendix B.

**Table 3-2 - Potential TAP Emissions from the Smith Pond Generator**

<b>Pollutant</b>	<b>Source PTE</b>
Toluene	0.001 lb/hr
	0.005 tpy
Benzene	0.0032 lb/hr
	0.014 tpy
Formaldehyde	0.0003 lb/hr
	0.0014 tpy
Acetaldehyde	0.0001 lb/hr
	0.00045 tpy
Acrolein	0.00003 lb/hr
	0.00014 tpy
Naphthalene	0.0005 lb/hr
	0.0023 tpy
Xylene	0.0008 lb/hr
	0.0035 tpy

**3.3**

***SUMMARY OF AIR QUALITY IMPACT ANALYSIS***

Idaho DEQ has established criteria pollutant modeling thresholds below which modeling is not required. There are two levels of modeling thresholds as summarized in Table 2 of the State of Idaho Guideline for Performing Air Quality Impact Analyses: Level I Thresholds, which are the threshold emission rates below which modeling analysis will not be required, except in unique situations, and Level II Thresholds, which are the conditional thresholds that are applied on a case-by-case basis. Criteria pollutants PTE from the Smith Pond Generator were compared against DEQ's Level I Thresholds to determine modeling analysis applicability. Based on this determination, modeling analysis is required

only for Annual NO<sub>2</sub> and 1-hr NO<sub>2</sub> because hourly and annual NO<sub>x</sub> PTE from the new source exceed the applicable Level I Thresholds.

**Table 3-3 - New Source PTE and DEQ Modeling Thresholds**

Pollutant	New Source PTE	Level I Thresholds	Threshold Exceedance
CO	0.297 lb/hr	15 lb/hr	No
NO <sub>x</sub>	0.908 lb/hr	0.2 lb/hr	Yes
	3.977 tpy	1.2 tpy	Yes
SO <sub>2</sub>	0.006 lb/hr	0.21 lb/hr	No
	0.027 tpy	1.2 tpy	No
PM <sub>10</sub>	0.054 lb/hr	0.22 lb/hr	No
PM <sub>2.5</sub>	0.0525 lb/hr	0.054 lb/hr	No
	0.237 tpy	0.35 tpy	No

Because the predicted maximum impact for annual NO<sub>2</sub> was below the applicable SIL, no further modeling analyses were required for annual NO<sub>2</sub>. SIL modeling predicted maximum NO<sub>2</sub> concentrations above the 1-hr NO<sub>2</sub> SIL, so a full impact analysis was required. The full impact analysis predicted maximum 1-hr NO<sub>2</sub> concentrations for the full facility below the NAAQS. Therefore, the proposed engine generator project is in compliance with annual and 1-hr NO<sub>2</sub> NAAQS.

#### 4.0

#### *APPLICABLE REQUIREMENTS*

The proposed Smith Pond Generator is subject to the following federal standards:

- 40 CFR 60 Subpart A - General Provisions
- 40 CFR 60 Subpart IIII - Standards Of Performance For Stationary Compression Ignition Internal Combustion Engines
- 40 CFR 63 Subpart ZZZZ - National Emission Standards For Hazardous Air Pollutants For Stationary Reciprocating Internal Combustion Engines
  - In accordance with 40 CFR §63.6590 (c)(7) - If the RICE is less than or equal to 500 BHP then the requirements of 40 CFR Part 60 subpart IIII must be met.

A detailed regulatory review of these federal rules is provided in Form FRA.

The proposed Smith Pond Generator is subject to the following IDAPA regulations:

- IDAPA 58.01.01.590. New Source Performance Standards
- IDAPA 58.01.01.591. National Emission Standards For Hazardous Air Pollutants
- IDAPA 58.01.01.161, Toxic Substances;
- IDAPA 58.01.01.210, Demonstration of Preconstruction Compliance with Toxic Standards; and
- IDAPA 58.01.01.625. Visible Emissions.

**FIGURES**

### Plot Plan - South Rasmussen Mine



**APPENDIX A**

**DEQ Forms for Permit to Construct a Modification**



**DEQ AIR QUALITY PROGRAM**

1410 N. Hilton, Boise, ID 83706

For assistance, call the

**Air Permit Hotline – 1-877-5PERMIT**

Cover Sheet for Air Permit Application – Permit to Construct **Form CSPTC**

Please see instructions on page 2 before filling out the form.

**COMPANY NAME, FACILITY NAME, AND FACILITY ID NUMBER**

1. Company Name	P4 Production, LLC		
2. Facility Name	South Rasmussen Mine	3. Facility ID No.	029-00038
4. Brief Project Description - One sentence or less	Proposed installation of a 100 kW diesel engine generator that will be used to run evaporation devices at the Smith Pond site.		

**PERMIT APPLICATION TYPE**

5.  New Source  New Source at Existing Facility  PTC for a Tier I Source Processed Pursuant to IDAPA 58.01.01.209.05.c  
 Unpermitted Existing Source  Facility Emissions Cap  Modify Existing Source: Permit No.: \_\_\_\_\_ Date Issued: \_\_\_\_\_  
 Required by Enforcement Action: Case No.: \_\_\_\_\_

6.  Minor PTC  Major PTC

**FORMS INCLUDED**

Included	N/A	Forms	DEQ Verify
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Form CSPTC – Cover Sheet	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Form GI – Facility Information	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	Form EU0 – Emissions Units General	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Form EU1– Industrial Engine Information Please specify number of EU1s attached: <u>1</u>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	Form EU2– Nonmetallic Mineral Processing Plants Please specify number of EU2s attached: _____	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	Form EU3– Spray Paint Booth Information Please specify number of EU3s attached: _____	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	Form EU4– Cooling Tower Information Please specify number of EU3s attached: _____	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	Form EU5 – Boiler Information Please specify number of EU4s attached: _____	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	Form CBP– Concrete Batch Plant Please specify number of CBPs attached: _____	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	Form HMAP – Hot Mix Asphalt Plant Please specify number of HMAPs attached: _____	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	PERF – Portable Equipment Relocation Form	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	Form AO – Afterburner/Oxidizer	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	Form CA – Carbon Adsorber	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	Form CYS – Cyclone Separator	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	Form ESP – Electrostatic Precipitator	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	Form BCE– Baghouses Control Equipment	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	Form SCE– Scrubbers Control Equipment	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	Form VSCE – Venturi Scrubber Control Equipment	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	Form CAM – Compliance Assurance Monitoring	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Forms EI– Emissions Inventory	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	PP – Plot Plan	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Forms MI1 – MI4 – Modeling (Excel workbook, all 4 worksheets)	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Form FRA – Federal Regulation Applicability	<input type="checkbox"/>

## Instructions for Form CSPTC

This form is the cover sheet for an air quality permit application. It provides DEQ with basic information regarding the company and the proposed permitting action. This form helps DEQ efficiently determine whether the application is administratively complete. This form also provides the applicant with a list of forms available to aid the applicant to successfully submit a complete application.

### Company Name, Facility Name, and Facility ID Number

- 1-3. Provide the name of your company, the name of the facility (if different than company name), and the facility identification (ID) number (Facility ID No.) in the boxes provided. The facility ID number is also known as the AIRS number or AIRS/AFS number (example: 095-00077). If you already have a permit, the facility ID number is located in the upper right hand corner of the cover page. The facility ID number must be provided unless your facility has not received one, in which case you may leave this box empty. **Use these same names and ID number on all forms.** This is useful in case any pages of the application are separated.
4. Provide a brief description of this permitting project in one sentence or less. Examples might be "Install/construct a new boiler" or "Increase the allowable process throughput." **This description will be used by DEQ as a unique identifier for this permitting project, in conjunction with the name(s) and ID number referenced in 1-3.** You will need to put this description, using the exact same words, on all other forms that are part of this project application. This is useful in case any pages of the application are separated.

### Permit Application Type

5. Provide the reason you are submitting the permit application by checking the appropriate box (e.g., a new facility being constructed, a new source being constructed at an existing facility, an unpermitted existing source (as-built) applying for a permit for the first time, a permitted source to be modified, or the permit application is the result of an enforcement action, in which case provide the case number). If you are modifying an existing permitted source, provide the number and issue date of the most recent permit.

If this PTC is for a Tier I source issued pursuant to the procedures contained at IDAPA 58.01.01.209.05.c, the source or modification may operate upon submittal of a Tier I Administrative Amendment issued pursuant to IDAPA 58.01.01.381.

6. Indicate if the application is a minor permit to construct application or a major permit to construct application by checking the appropriate box (e.g., major PTC or minor PTC). If the permit to construct application is for a major new source or major modification, you must ensure that all necessary information required by IDAPA 58.01.01.202, and .204, or .205, as applicable, is provided.

### Forms Included

Check the "Included" box for each form included in this permit to construct application. If there are multiples of a form for multiple units of that type, check the box and fill in the number of forms in the blank provided.

The "N/A" box should only be checked if the form is absolutely unnecessary to complete the application. Additional information may be requested.

### Application Fee

**All applicants for a PTC shall submit a PTC application fee of \$1000.00 to DEQ at the time of the original submission of the application as required by IDAPA 58.01.01.224. An application fee is not required for exemption applicability determinations, typographical errors, and name or ownership changes. An application fee can be paid by check, credit card, or Electronic Funds Transfer (EFT). If you choose to pay by credit card or EFT, call DEQs Fiscal Office to complete the necessary paperwork. Paper checks must be submitted with the original application as described below.**

### Submit Application

**When complete, enclose a check for the application fee along with the hardcopy application certified by a responsible official (as defined in IDAPA 58.01.01.006.94), and send to:**

Air Quality Program Office – Application Processing  
Department of Environmental Quality  
1410 N. Hilton  
Boise, ID 83706-1255



Please see instructions on back page before filling out the form. All information is required. If information is missing, the application will not be processed.

**Identification**

1. Facility name: South Rasmussen Mine  
 2. Existing facility identification number: 029-00038  
 Check if new facility (not yet operating)  
 3. Brief project description: Proposed installation of a 100 kW diesel engine generator that will be used to run evaporation devices at the Smith Pond site

**Facility Information**

4. Primary facility permitting contact name: Rachel Roskelley  
 Contact type: Facility permitting contact  
 Telephone number: (208) 547-1248  
 E-mail: rachel.a.roskelley@monsanto.com  
 5. Alternate facility permitting contact name: Branden Hendriks  
 Alternate contact type: Facility permitting contact  
 Telephone number: (208) 547-1439  
 E-mail: branden.s.hendriks@monsanto.com  
 6. Mailing address where permit will be sent (street/city/county/state/zip code): 1853 Hwy. 34 Soda Springs, ID 83276  
 7. Physical address of permitted facility (if different than mailing address) (street/city/county/state/zip code): 18 miles northeast of Soda Springs, Idaho  
 8. Is the equipment portable?  Yes\*  No \*If yes, complete and attach PERF; see instructions.  
 9. NAICS codes: Primary NAICS: 212392 Secondary NAICS:  
 10. Brief business description and principal product produced: mining phosphate ore  
 11. Identify any adjacent or contiguous facility this company owns and/or operates: NA

12. Specify type of application  Permit to construct (PTC); application fee of \$1,000 required. See instructions.  
 Tier I permit  Tier II permit  Tier II/Permit to construct  
 For Tier I permitted facilities only: If you are applying for a PTC then you must also specify how the PTC will be incorporated into the Tier I permit.  
 Co-process Tier I modification and PTC  Incorporate PTC at the time of Tier I renewal  Administratively amend the Tier I permit to incorporate the PTC upon applicant's request (IDAPA 58.01.01.209.05.a, b, or c)

**Certification**

In accordance with IDAPA 58.01.01.123 (Rules for the Control of Air Pollution in Idaho), I certify based on information and belief formed after reasonable inquiry, the statements and information in the document(s) are true, accurate, and complete.

13. Responsible official's name: Sheldon Alver  
 Official's title: Plant Manager  
 Official's address: 1853 Hwy. 34 Soda Springs, ID 83276  
 Telephone number: (208) 547-1318  
 E-mail: Sheldon.d.alver@monsanto.com  
 Official's signature: \_\_\_\_\_ Date: \_\_\_\_\_

14. Check here to indicate that you want to review the draft permit before final issuance.

## Instructions for Form GI

This form is used by DEQ to identify a company or facility, equipment locations, and personnel involved with the permit application. Additional information may be required.

### Identification

1. Provide the facility name. If the facility is *doing business as* (dba) a facility different in name than the primary facility, provide the dba name.
2. If the facility is an existing permitted facility in Idaho, provide the facility identification number. If the facility is new and not yet operating, check the box.
3. Provide a brief project description as on Form CS, Cover Sheet. This is useful in case any pages of the application are separated.

### Facility information

4. Provide name of the *primary* person who should be contacted regarding this permit. Provide telephone number and e-mail address for the primary person.
5. Provide name of an *alternate* person who should be contacted if the person listed in 4 is not available. Provide telephone number and e-mail address for the alternate person.
6. Provide the mailing address where DEQ should mail the permit.
7. Provide the physical address where the equipment is located (if different than 6).
8. Indicate if the permitted equipment is portable by checking the appropriate box. If the permitted equipment is portable, complete and attach the Portable Equipment Relocation Form (PERF) to this application. The PERF is available from DEQ's website at [http://www.deq.idaho.gov/media/576773-ptc\\_relocation.pdf](http://www.deq.idaho.gov/media/576773-ptc_relocation.pdf) or [http://www.deq.idaho.gov/media/576769-ptc\\_relocation.doc](http://www.deq.idaho.gov/media/576769-ptc_relocation.doc) (for Word format).
9. Provide the North American Industry Classification System (NAICS) code for your facility. NAICS codes can be found at <http://www.census.gov/epcd/naics02/naicod02.htm>.
10. Describe the primary activity and principal product of your business as it relates to the NAICS code listed in 9.
11. Identify and describe any other sources or equipment owned and operated by the primary facility that are located on contiguous or adjacent properties and the role the source or equipment plays in supporting the primary facility.
12. Check the box describing the type of permit application.

**Important note:** If application is for a permit to construct (PTC), include the application fee of \$1,000 when submitting the application. Per IDAPA 58.01.01.226.02, DEQ cannot process the application without the fee, which must be submitted with the application.

For existing Tier I facilities that are applying for a PTC, the applicant must specify how the PTC will be incorporated into the Tier I permit (IDAPA 58.01.01.209.05). If you have questions, call the Air Permit Hotline at 1-877-573-7648.

### Certification

13. Provide the name, title, address, telephone number, and e-mail of the facility's responsible official. Responsible official is defined in IDAPA 58.01.01.006.99. The responsible official must sign and date the application before it is submitted to DEQ.
14. Check this box to indicate that you want to review a draft before the final permit is issued.



Please see instructions on page 2 before filling out the form.

IDENTIFICATION		
1. Company Name: P4 Production, LLC	2. Facility Name: South Rasmussen Mine	
3. Brief Project Description: See CSPTC		

ENGINE (EMISSION UNIT) DESCRIPTION AND SPECIFICATIONS			
4. Type of Unit: <input checked="" type="checkbox"/> New Unit <input type="checkbox"/> Unpermitted Existing Unit <input type="checkbox"/> Modification to a Unit with Permit #: _____ Date Issued: _____			
5. Engine Displacement: 1.1 (liters per cylinder)	6. Ignition Type: <input checked="" type="checkbox"/> Compression <input type="checkbox"/> Spark		
7. Use <input type="checkbox"/> Emergency <input checked="" type="checkbox"/> Non-Emergency			
8. Engine ID Number: See Serial Number	9. Maximum Rated Engine Power: _____ Brake Horsepower (bhp)		
10. Construction Date: Spring 2013	11. Manufacturer: Caterpillar	12. Model: D100-6	13. Model Year: 2011
14. Date of Modification (if applicable): NA	15. Serial Number (if available): E5M02525	16. Control Device (if any):	

FUEL DESCRIPTION AND SPECIFICATIONS				
17. Fuel Type	<input checked="" type="checkbox"/> Diesel Fuel (# ) (gal/hr)	<input type="checkbox"/> Gasoline Fuel (gal/hr)	<input type="checkbox"/> Natural Gas (cf/hr)	<input type="checkbox"/> Other Fuels (unit:    )
18. Full Load Consumption Rate	29.8			
19. Actual Consumption Rate	29.8			
20. Sulfur Content wt%	15 ppm	N/A	N/A	

OPERATING LIMITS & SCHEDULE	
21. Imposed Operating Limits (hours/year, or gallons fuel/year, etc.): None	
22. Operating Schedule (hours/day, months/year, etc.): None	

## Instructions for Form EU1

- 1 – 3. Provide the same company name, facility name (if different), and brief project description as on Form CS. This is useful in case any pages of the application are separated. This industrial engine may be subject to the *Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (40 CFR 60, Subpart IIII)*. Follow the link for applicability and compliance information. If Subpart IIII applies to this engine, complete and include Form FRA.

### **Engine Description and Specification:**

4. Indicate whether the engine is new, existing but unpermitted, or being modified.
5. Indicate the engine displacement in liters per cylinder.
6. Indicate the ignition type as either compression or spark.
7. Indicate whether the primary use of the engine is emergency or non-emergency.
8. Provide the identification (ID) number of the engine emission unit (EU). Each engine in the application must have its own number. If engines included in this permit application are not identical in make and model, fill out a separate EU1 form for each engine. If the engines are identical, attach a separate sheet labeled EU1A listing them by ID number and date of construction or modification. The ID number can be any unique identifier you choose; however, this ID number should be unique to this EU and should be used consistently throughout this application and all other air quality permit applications (e.g., operating permit application) to identify this EU.
9. The maximum rated horsepower should be read from the engine's nameplate or from the manufacturer's user's manual or similar literature.
10. The date of construction of the engine is the date, month, and year in which construction or modification begins as defined in EU0 Form Instruction item 11.
11. Provide the name of the manufacturer of the engine.
12. Provide the model number of the engine. This number should be available from the nameplate of the engine.
13. Provide the model year of the engine.
14. If the engine has been or will be modified, give the date, month, and year of the most recent or future modification.
15. Provide the manufacturer's serial number for this engine, if available.
16. Provide the control device name and number if a control device is attached to this engine. The name and number of the control device should be consistent with control equipment forms and throughout the application.

### **Fuel Description and Specifications:**

17. Indicate the fuel type used by the engine. If diesel fuel is used, you need to indicate the ranking number (e.g., diesel fuel No. 2). If the engine is a dual-fuel engine, please check the appropriate fuel type boxes.
18. The full-load consumption rate is the fuel consumption rate at the engine's rated capacity.
19. The actual consumption rate is the fuel consumption rate (usually daily average) under typical operational conditions.
20. Provide the weight percentage of the sulfur content in the diesel oil.

### **Operation Limits:**

21. If any, indicate the operating limits you imposed to this engine in the units of operating hours per year, or gallons fuel per hour, per year, etc.
22. Indicate your operation schedule for the projected maximum operation of the engine.



## Ambient Impact Assessment Emission Inventory for New Minor Facilities and Minor Modifications Application Template and Instructions

### New Minor Facilities or Minor Modifications to Existing Facilities

Applicants must demonstrate that the source will not cause or significantly contribute to a violation of an ambient air quality standard for criteria pollutants<sup>1</sup>. As described in the State of Idaho Air Quality Modeling Guideline, there are three methods that an applicant can use to demonstrate compliance:

- Method 1.** Demonstrate that emissions from the new and/or modified existing facility are below air quality modeling thresholds that are listed in the State of Idaho Air Quality Modeling Guideline.
- Method 2.** Demonstrate that emissions from the new and/or modified source will not cause ambient impacts at or above significant ambient impact levels (Significant Impact Analysis or Preliminary Analysis).
- Method 3.** Demonstrate that facility wide emissions, when combined with co-contributing sources and background levels, do not cause an exceedance of ambient standards (Cumulative Analysis).

The type of emission inventory required depends upon which method is used to demonstrate compliance. In the following pages the type of emission inventory that is required to be submitted is discussed for each method. DEQ strongly recommends that the applicant develop and submit for DEQ approval a written modeling protocol prior to submitting the application (refer to the State of Idaho Air Quality Modeling Guideline). The modeling protocol must address what types of emission inventories are required for modeling, and address which fugitive emissions must be included.

**All modeling emission inventories must be summarized using the emission inventory summary table provided below (Table 1).**

The applicant must document all emission calculations and follow the emission inventory instructions provided. **Applications without sufficient documentation are incomplete; do not proceed until you have read the instructions on page 6.**

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<sup>1</sup> Rules for the Control of Air Pollution in Idaho (IDAPA 58.01.01.203 & 403)

**Table 1 Proposed Emissions**

(pick the appropriate header for the specific purpose after reading the instructions)

Emissions Unit	Stack or Emissions Point ID <sup>a</sup>	PM <sub>10</sub>	PM <sub>2.5</sub>		SO <sub>2</sub>		NO <sub>x</sub>		CO		Lead	
		lb/hr 24-hr Avg.	lb/hr 24-hr Avg.	lb/hr Annual Avg.	lb/hr Max.	lb/hr 3-hr Avg.	lb/hr Max.	lb/hr Annual Avg.	lb/hr Max.	lb/hr 8-hr Avg.	lb/hr monthly Avg.	lb/hr 1/4ly Avg.
<b>Point Sources</b>												
New Smith Pond Generator	NEW GEN	0.054	0.0525	0.0525	0.00607	0.00607	0.908	0.908	0.0297	0.297	0.0	0.0
<b>Fugitive Sources</b>												

a) Stack or Emissions Point ID must match the ID used in the air dispersion model.

Applicants are encouraged to call DEQ’s Air Quality Permit Hotline (1-877-573-7648) to ask questions as they prepare the application.

Following are descriptions of the types of emission inventories that are required for each of the three methods that can be used to demonstrate that the source will not cause or significantly contribute to a violation of ambient air quality standards for criteria pollutants. These descriptions are also covered in the State of Idaho Air Quality Modeling Guideline. The following descriptions are intended to be general guidelines that apply to the vast majority of situations. Even though they cover the vast majority of situations they are not intended to act in place of a DEQ approved modeling protocol that is developed based on consideration of site specific emissions units and air pollution dispersion characteristics.

**Method 1**

Demonstrate that emissions from the new and/or modified existing facility are below air quality modeling thresholds that are listed in the State of Idaho Air Quality Modeling Guideline.

New facilities Calculate proposed allowable, or potential to emit, of all new emissions units. “All” emissions units includes those units that would have otherwise qualified for an exemption (do not omit any sources).

Provide an emission inventory summary table for proposed allowable emissions using the template provided above.

Modified Facilities

***New Emission Units (including Replacement units)*** – This includes new units that are replacing existing emission units.

Calculate the proposed allowable emissions, or potential to emit, of all new emissions units. “All” emissions units includes those units that would have otherwise qualified for an exemption (do not omit any sources).

The emission reduction associated with removal of an existing emission unit will not typically be considered in the evaluation of whether emissions exceed modeling thresholds. Prior written DEQ approval is necessary for any emission reduction to be credited in evaluation of whether emissions exceed modeling thresholds.

Provide an emission inventory summary table for proposed allowable emissions using the template provided.

***Modified Existing Non-permitted Emission Units*** – Non-permitted means those emission units not included in a PTC or Tier II operating permit. The emissions units that must be included are all of the emissions units that are part of the project. ***Project*** means a physical change in, or change in the method of operation of, an existing stationary source. **Sources not being physically modified but which could experience emissions increases that result from the change<sup>2, 3</sup> are required to be included in the project.**

For emission units that air pollution dispersion characteristics do not change (i.e. stack height, diameter, flow rate, temperature), calculate the emission increase as the difference of proposed allowable emissions and actual emissions. Actual emissions shall be calculated using the units actual operating hours, production rates, types of materials processed, stored, or combusted during the two during a two year period prior to submitting the application. Actual emissions should represent normal source operations, DEQ may grant written approval of a different time period provided it is demonstrated that it is more representative of normal source operation.

For emission units that air pollution dispersion characteristics do change, comparison to the modeling threshold should be based on the total allowable emissions rate of the modified source.

Provide an emission inventory summary table for proposed allowable emissions using the template provided. For emission units that air pollution dispersion characteristics do not change also provide an emission inventory summary table for actual emissions and emission increase.

***Modified Existing Permitted Emission Units*** – Permitted means those units included in a PTC or Tier II operating permit.

For emission units that air pollution dispersion characteristics do not change (i.e. stack height, diameter, flow rate, temperature), calculate the emission increase as the difference of proposed allowable emissions and the previous allowable emissions.

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<sup>2</sup> David Neleigh, Chief, Air Permits Section EPA Region 6. Letter to Dawson Lasseter, Air Quality Division, Oklahoma DEQ, January 27, 2005.

<sup>3</sup> R. Douglas Neeley, Chief, Air & Radiation Technology Section, Letter to Rs. Rhonda Banks Thompson, South Carolina Department of Health and Environmental Control, March 14, 1997 (“... when a particular physical change or change in the method of operation would cause an increase in emissions from other emissions units, then those “other” emissions must be included in determining PSD applicability for the particular change.”)

For emission units that air pollution dispersion characteristics do change, comparison to the modeling threshold should be based on the total allowable emissions rate of the modified source.

Provide an emission inventory summary table for proposed allowable emissions and the emissions increase using the template provided. For emission units that air pollution dispersion characteristics do not change also provide an emission inventory summary table for existing allowable emissions.

### **Method 2**

Demonstrate that emissions from the new and/or modified source will not cause ambient impacts at or above significant ambient impact levels (Significant Impact Analysis or Preliminary Analysis).

#### **New Facilities**

Calculate proposed allowable emissions, or potential to emit, of all new emissions units. "All" emissions units includes those units that would have otherwise qualified for an exemption (do not omit any sources). Model the emission rate(s) following a DEQ approved Modeling Protocol and determine if a significant impact occurs.

#### **Modified Facilities**

***New Emission Units (including Replacement units)*** – This includes new units that are replacing existing emission units.

Calculate proposed allowable emissions, or potential to emit, of all new emissions units. "All" emissions units includes those units that would have otherwise qualified for an exemption (do not omit any sources).

Calculate the emission reduction associated with removal of an existing emission unit.

- For existing permitted emission units the reduction is equal to the permitted emission rate or the potential to emit. Permitted means those units included in a PTC or Tier II operating permit.
- For existing non-permitted emission units the reduction is based on actual emission of the unit. Actual emissions shall be calculated using the units actual operating hours, production rates, types of materials processed, stored, or combusted during a two year period prior to submitting the application. Actual emissions should represent normal source operations, DEQ may grant written approval of a different time period provided it is demonstrated that it is more representative of normal source operation.

Model the emission rate(s) following a DEQ approved Modeling Protocol and determine if a significant impact occurs. Shutdown emission units are typically modeled as negative emission rates.

***Modified Existing Non-permitted Emission Units*** – Non-permitted means those units not included in a PTC or Tier II operating permit. The emissions units that must be included are all of the emissions units that are part of the project. ***Project*** means a physical change in, or change in the method of operation of, an existing stationary source. **Sources not being physically modified but which could experience emissions increases that result from the change<sup>4,5</sup> are required to be included in the project.**

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<sup>4</sup> David Neleigh, Chief, Air Permits Section EPA Region 6. Letter to Dawson Lasseter, Air Quality Division, Oklahoma DEQ, January 27, 2005.

For emission units that air pollution dispersion characteristics do not change (i.e. stack height, diameter, flow rate, temperature), calculate the emission increase as the difference of proposed allowable emissions and actual emissions. Actual emissions shall be calculated using the units actual operating hours, production rates, types of materials processed, stored, or combusted during a two year period prior to the modification. Actual emissions should represent normal source operations, DEQ may grant written approval of a different time period provided it is demonstrated that it is more representative of normal source operation. Provide the proposed allowable, actual emissions and emission increase using the template provided.

For emission units that air pollution dispersion characteristics do change, modeling is based on the total allowable emissions rate of the modified source. Provide the proposed allowable emissions rates using the template provided. Model the emission rate(s) following a DEQ approved Modeling Protocol and determine if a significant impact occurs.

***Modified Existing Permitted Emission Units*** – Permitted means those units included in a PTC or Tier II operating permit.

For emission units that air pollution dispersion characteristics do not change (i.e. stack height, diameter, flow rate, temperature), calculate the emission increase as the difference of proposed allowable emissions and the previous allowable emissions. Provide the proposed allowable emissions rates, previous allowable emission rates, and emission increase using the template provided.

For emission units that air pollution dispersion characteristics do change, modeling should be based on the total allowable emissions rate of the modified source. Provide the proposed allowable emissions rates using the template provided.

Model the emission rate(s) following a DEQ approved Modeling Protocol and determine if a significant impact occurs.

### **Method 3**

Demonstrate that facility wide emissions, when combined with co-contributing sources and background levels, do not cause an exceedance of ambient standards (Cumulative Analysis).

Calculate proposed allowable emissions of all emissions units. All emissions units includes those units that would have otherwise qualified for an exemption if they were the only unit being constructed (do not omit any sources). Provide the proposed allowable emissions rates using the template provided. Model the emission rate(s) following a DEQ approved Modeling Protocol, add the appropriate background concentration value, and determine if violation of a standard occurs.

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<sup>5</sup> R. Douglas Neeley, Chief, Air & Radiation Technology Section, Letter to Rs. Rhonda Banks Thompson, South Carolina Department of Health and Environmental Control, March 14, 1997 (“... when a particular physical change or change in the method of operation would cause an increase in emissions from other emissions units, then those “other” emissions must be included in determining PSD applicability for the particular change.”)

### **Modeling Emission Inventory Instructions:**

1. Use the same emission unit name throughout the application (i.e. in air pollution control equipment forms and for modeling purposes).
2. The application must **show in detail all calculations** used to develop the PTE summary and include:
  - Electronic copies of any spreadsheets used to estimate emissions. If a spreadsheet is used submit an electronic copy of the spread sheet (i.e. Excel File).
  - Documentation of all calculations conducted by hand (i.e. show all calculations).
  - Clear statements on all assumptions relied upon in estimating emissions.
  - Documentation of the emissions factors used to estimate emissions. If the emissions factor documentation is readily available to DEQ, such as an EPA AP-42 emissions factor, a simple reference to the emissions factor suffices. If the emissions factor documentation is not readily available to DEQ the applicant must submit the documentation with the application; ask DEQ if you are uncertain. **Applications without sufficient documentation are incomplete.** Documentation may consist of manufacturer guarantees, research conducted by trade organizations, published emission factors, and source test results. **If there are multiple factors for a given operation, note why the factor used is the most representative.**
  - Copies of manufacturer guarantees upon which emission inventories are based.
  - The best available emission information (see [DEQ's Guidance on Emissions Data Hierarchy](#)).
  - If source tests are used as the basis for emissions estimates the source test report must be submitted. If the source test report is on file with DEQ provide the date of the source test was submitted along with the name of the facility and the emission unit that was tested. Source data from similar emissions units may be considered reliable provided it is clearly described why the sources are similar. Similar sources are those that the applicant has shown serve a similar function, use similar raw materials, and have similar processing rates.
3. **Input to the computer model must match the emission inventory in the summary table(s).** Additionally, the emissions inventory calculations that are submitted must also match the summary table. It would seem that this could go without saying, **but there are a surprising number of applications received where emission calculations do not match the input to the computer model.** DEQ recommends that the applicant print the emission inventory input file in the model and compare it to this summary table (this is one of the first things that DEQ will check during the completeness review). If the inventories do not match the application is incomplete.
4. DEQ highly recommends that a written modeling protocol be submitted for approval prior to conducting modeling. The modeling protocol should address which fugitive emissions must be included. Idaho's Air Quality Modeling Guideline states the following types of fugitive emissions sources should be included:

**“Process fugitive emissions from material handling, processing, etc.**  
Fugitive emissions from vehicle traffic on facility roadways and wind erosion emissions from storage piles will not typically be considered for minor source permitting unless DEQ determines such sources may have a substantial contribution.”
5. The applicant must complete the Modeling Information Workbook ([Form MI](#)) to provide other modeling input parameters.



**STATE OF IDAHO  
DEPARTMENT OF  
ENVIRONMENTAL QUALITY**

Version 1, August 2010

## **Toxic Air Pollutant Emissions Inventory Application Template and Instructions**

Applicants must demonstrate preconstruction compliance with toxic air pollutant (TAP) standards contained in IDAPA 58.01.01.210 (*Rules for the Control of Air Pollution in Idaho*). DEQ has developed a TAP completeness checklist in order to assist applicants. DEQ strongly recommends that applicants complete and submit this checklist as part of the application. **Applications which do not follow one of the available methods for demonstrating compliance described in the checklist will be determined incomplete or denied.** Follow this link to the checklist: [Toxic Air Pollutant Application Completeness Checklist](#). Be sure to calculate emissions correctly for the averaging periods as described in the checklist and in the instructions on page 3.

The type of TAP emissions inventory required depends upon which method is used to demonstrate compliance (see the [Toxic Air Pollutant Application Completeness Checklist](#)). **All TAP emissions inventories must be summarized using the emissions inventory summary tables provided below (Table 1 and Table 2).**

**The applicant must document all emission calculations as described in the instructions provided on the following page. Applications without sufficient documentation are incomplete; do not proceed until you have read the instructions.**

Applicants are encouraged to call DEQ's Air Quality Permit Hotline (1-877-573-7648) to ask questions as they prepare the application.

**Table 1. PRE- AND POST PROJECT NON-CARCINOGENIC TAP EMISSIONS SUMMARY  
POTENTIAL TO EMIT**

Non-Carcinogenic Toxic Air Pollutants (sum of all emissions)	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)
<b>Acrolein</b>	<b>0.00</b>	<b>3.00E-05</b>	<b>3.00E-05</b>	<b>1.7E-02</b>	<b>No</b>
<b>Naphthalene</b>	<b>0.00</b>	<b>5.00E-04</b>	<b>5.00E-04</b>	<b>3.33E-0.0</b>	<b>No</b>
<b>Toluene</b>	<b>0.00</b>	<b>1.00E-03</b>	<b>1.00E-03</b>	<b>25.0E-0.0</b>	<b>No</b>
<b>Xylene</b>	<b>0.00</b>	<b>8.00E-04</b>	<b>8.00E-04</b>	<b>29.0E-0.0</b>	<b>No</b>

**Table 2. PRE- AND POST PROJECT CARCINOGENIC TAP EMISSIONS SUMMARY POTENTIAL TO  
EMIT**

Carcinogenic Toxic Air Pollutants (sum of all emissions)	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)
<b>Acetaldehyde</b>	<b>0.00</b>	<b>1.0E-4</b>	<b>1.0E-4</b>	<b>3.0E-3</b>	<b>No</b>
<b>Benzene</b>	<b>0.00</b>	<b>3.2E-3</b>	<b>3.2E-3</b>	<b>8.0E-4</b>	<b>b)</b>
<b>Formaldehyde</b>	<b>0.00</b>	<b>3.0E-4</b>	<b>3.0E-4</b>	<b>5.1E-4</b>	<b>No</b>

a) *{If you have POM include the following footnote.}* Polycyclic Organic Matter (POM) is considered as one TAP comprised of: benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, dibenzo(a,h)anthracene, chrysene, indeno(1,2,3-cd)pyrene, benzo(a)pyrene. The total is compared to benzo(a)pyrene.

b) *P4 Input - Preconstruction compliance with toxic air pollutant (TAP) standards contained in IDAPA 58.01.01.210 (Rules for the Control of Air Pollution in Idaho) determined through compliance with NSPS 40 CFR 60 Subpart IIII. See TAP completeness checklist included with this Application Package.*

**Pre-project average emissions are the existing allowable emission rates.**

**Post-project average emissions are the new proposed emission rates.**

### Emission Inventory Instructions:

1. The averaging period for the emission rate depends upon whether the TAP is non-carcinogenic or carcinogenic. Non-carcinogenic TAP emissions are averaged over 24 hours, carcinogenic TAP emissions are averaged over 8760 hours.  
**For more explanation on averaging periods, see the Toxic Air Pollutant Application Completeness Checklist.**
2. **Pre-project** average emissions are the existing allowable emission rates.  
**Post-project** average emissions are the new proposed emission rates.
3. Use the same emission unit name/designation throughout the application (i.e. air pollution control equipment forms and modeling forms).
4. The emission inventories will be subjected to technical review; prepare your application with sufficient documentation so that the public and DEQ can verify the validity of the emission estimates. The application must **show in detail all emission calculations** used to develop the emission inventory summary and must include the following:
  - **Clear documentation of any emissions averaging that was used.** For instance if a source only operates 8 hours during any day and the emissions during that 8 hour period are averaged over 24 hours then this must be clearly described in the application. The emissions averaging calculations must also be shown.
  - Electronic copies of any spreadsheets used to estimate emissions. If a spreadsheet is used submit an electronic copy of the spread sheet (i.e. Excel File).
  - Documentation of all calculations conducted by hand (i.e. show all calculations).
  - Clear statements on all assumptions relied upon in estimating emissions.
  - Documentation of the emissions factors used to estimate emissions. If the emissions factor documentation is readily available to DEQ, such as an EPA AP-42 emissions factor, a simple reference to the emissions factor suffices. If the emissions factor documentation is not readily available to DEQ the applicant must submit the documentation with the application; ask DEQ if you are uncertain. **Applications without sufficient documentation are incomplete.** Documentation may consist of manufacturer guarantees, research conducted by trade organizations, published emission factors, and source test results. **If there are multiple factors for a given operation, note why the factor used is the most representative.**
  - Copies of manufacturer guarantees upon which emission inventories are based.
  - The best available emission information (see DEQ's Guidance on Emissions Data Hierarchy).
  - If source tests are used as the basis for emissions estimates the source test report must be submitted. If the source test report is on file with DEQ provide the date of the source test was submitted along with the name of the facility and the emission unit that was tested. Source test data from similar emissions units may be considered reliable provided it is clearly described why the sources are similar. Similar sources are those that the applicant has shown serve a similar function, use similar raw materials, and have similar processing rates.



## Facility Wide Hazardous Air Pollutant Potential to Emit Application Template and Instructions

Provide the facility wide potential to emit for all Hazardous Air Pollutants (HAPs). **The potential to emit provided here must match the emissions rates which are requested to be permitted.**

HAPs are pollutants that are required to be regulated under the Clean Air Act. A list of the HAPs may be found by following this link: [HAP list](#); review the list carefully to be sure you have included all listed HAPs.

**All emissions inventories must be submitted with thorough documentation.** The emission inventories will be subjected to technical review; prepare your application with sufficient documentation so that either the public or DEQ can verify the validity of the emission estimates. **Applications submitted without sufficient documentation are incomplete. Follow the instructions provided on the following page; do not proceed until you have read the instructions.**

**Applicants must use the Potential to Emit Summary table provided below.** Identify the individual HAP with the highest emissions and total HAP emissions. The potential to emit provided here must match the emissions rates which are requested to be permitted. **All fugitive emissions of HAPs must be included.**

Table X HAP POTENTIAL TO EMIT EMISSIONS SUMMARY

HAP Pollutants	PTE (T/yr)
Acrolein	1.4E-04
Naphthalene	2.3E-03
Toluene	5.0E-03
Xylene	3.5E-3
Acetaldehyde	4.5E-4
Benzene	1.4E-2
Formaldehyde	1.4E-3
Total	2.67E-2

\* Maximum Individual HAP

Applicants are encouraged to call DEQ's Air Quality Permit Hotline (1-877-573-7648) to ask questions as they prepare the application.

### **Emission Inventory Instructions:**

1. Use the same emission unit name throughout the application (i.e. in air pollution control equipment forms and for modeling purposes).
2. The application must **show in detail all calculations** used to develop the PTE summary and include:
  - Electronic copies of any spreadsheets used to estimate emissions. If a spreadsheet is used submit an electronic copy of the spread sheet (i.e. Excel File).
  - Documentation of all calculations conducted by hand (i.e. show all calculations).
  - Clear statements on all assumptions relied upon in estimating emissions.
  - Documentation of the emissions factors used to estimate emissions. If the emissions factor documentation is readily available to DEQ, such as an EPA AP-42 emissions factor, a simple reference to the emissions factor suffices. If the emissions factor documentation is not readily available to DEQ the applicant must submit the documentation with the application; ask DEQ if you are uncertain. **Applications without sufficient documentation are incomplete.** Documentation may consist of manufacturer guarantees, research conducted by trade organizations, published emission factors, and source test results. **If there are multiple factors for a given operation, note why the factor used is the most representative.**
  - Copies of manufacturer guarantees upon which emission inventories are based.
  - The best available emission information (see DEQ's Guidance on Emissions Data Hierarchy).
  - If source tests are used as the basis for emissions estimates the source test report must be submitted. If the source test report is on file with DEQ provide the date of the source test was submitted along with the name of the facility and the emission unit that was tested. Source data from similar emissions units may be considered reliable provided it is clearly described why the sources are similar. Similar sources are those that the applicant has shown serve a similar function, use similar raw materials, and have similar processing rates.
2. **All fugitive emissions of HAPs must be included<sup>1</sup>.**

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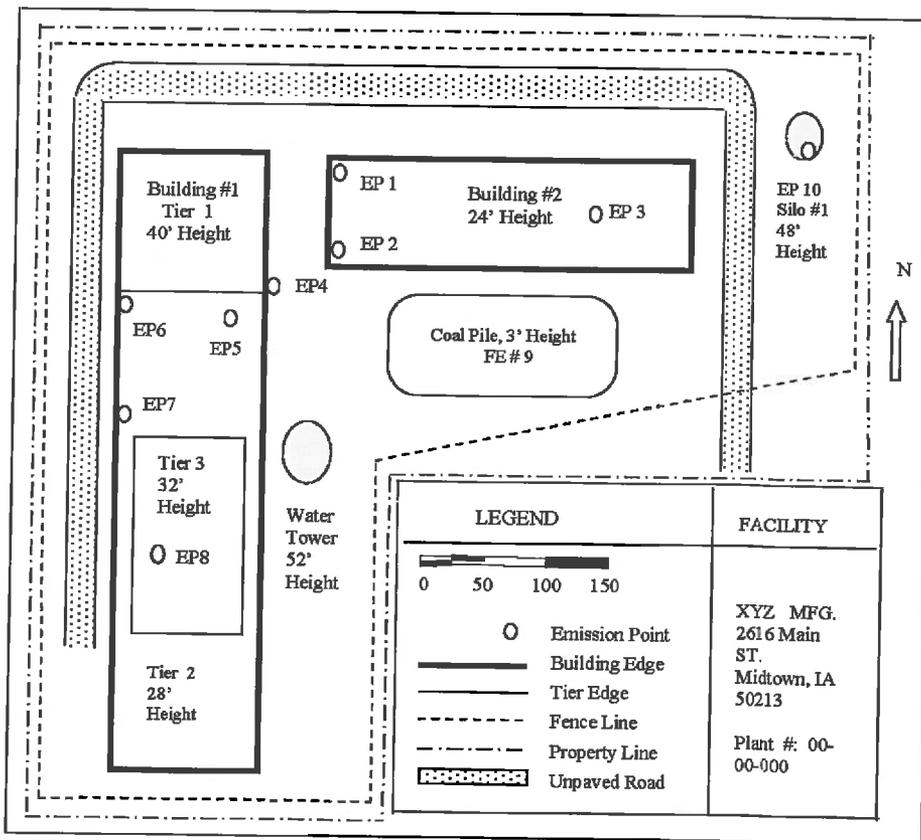
<sup>1</sup> November 27, 2001 (66 FR 59161), EPA published a rule, "Change to Definition of Major Source," that requires the fugitive emissions of all hazardous air pollutants ("HAPs") listed under section 112(b) of the Act in determining whether the source is a major source.



**PLOT PLAN REQUIREMENTS**

- A scaled plot plan of the entire plant is required with your permit application. The plot plan must show:
1. A scale bar and a north arrow. The scale must be of sufficient size to allow drawings to be converted to electronic format.
  2. Property lines.
  3. If any, fence lines or any physical barriers precluding the public access.
  4. Locations of all buildings **within the property lines**. Locations of tiers on multi-level buildings. Include the building and structure heights, and tier heights. A description of the buildings or structures is optional.
  5. Locations of **ALL** emission points. Emission point symbols need not be to scale.
  6. Locations of all structures **above ground level and within property lines**. Structures **above ground level** such as a gasoline storage tank, grain storage silos, etc., must be shown. Structures **at ground level**, such as concrete pads, paved parking lots, etc., should **not** be on the plot plan.
  7. Locations of unpaved roads (need not be to scale) and area sources, such as coal piles must be shown, only if fugitive emissions must be included in the permit application.
  8. Highlight or mark the emission point that is the subject of this permit application so that it is clearly distinguished from other emission points or labels on the plot plan.
- **All buildings and structures above ground level and all emission points must be marked with identification numbers, which MUST be consistent with all forms in the application.**
  - AutoCAD or equivalent computer-aid drawings on paper and on disk are preferred.
  - Sketches are acceptable.
  - Aerial photographs are not acceptable.

**SAMPLE PLOT PLAN**



# Plot Plan - South Rasmussen Mine





DEQ AIR QUALITY PROGRAM  
 1410 N. Hilton, Boise, ID 83706  
 For assistance, call the  
**Air Permit Hotline - 1-877-5PERMIT**

**PERMIT TO CONSTRUCT APPLICATION**  
 Revision 3  
 4/5/2007

Please see instructions on page 2 before filling out the form.

Company Name: P4 Production, LLC  
 Facility Name: South Rasmussen Mine  
 Facility ID No.: 029-00038  
 Brief Project Description: Proposed installation of a 100 kW diesel engine generator that will be used to run evaporation devices at the Smith Pond site.

**SUMMARY OF AIR IMPACT ANALYSIS RESULTS - CRITERIA POLLUTANTS**

Criteria Pollutants	Averaging Period	1. Significant Impact Analysis Results (µg/m3)					3. Background Concentration (µg/m3)	4. Total Ambient Impact (µg/m3)	5. Percent of NAAQS
		Significant Impact Analysis Results (µg/m3)	Significant Contribution Level (µg/m3)	Full Impact Analysis Results (µg/m3)	NAAQS (µg/m3)	Percent of NAAQS			
PM <sub>10</sub>	24-hour	-	5	-	-	-	-	150	-
	Annual	-	1	-	-	-	-	50	-
	3-hr	-	25	-	-	-	-	1300	-
	24-hr	-	5	-	-	-	-	365	-
NO <sub>2</sub>	Annual	-	1	-	-	-	-	80	-
	1-hr	11.6	7.5	138.7	42.00	180.7	188	96%	
CO	Annual	0.7	1	-	-	-	-	100	-
	1-hr	-	2000	-	-	-	-	10000	-
	8-hr	-	500	-	-	-	-	40000	-

### Instructions for Form MI1

This form is designed to provide the air quality modeler with a summary of the air impact analysis results for the criteria pollutants. This information will be used by IDEQ to determine compliance demonstration with the national ambient air quality standards (NAAQS).

Please fill in the same company name, facility name, facility ID number, and brief project description as on Form CS in the boxes provided. This is useful in case any pages of the application get separated.

**Significant Impact Analysis** - Evaluates the emissions increase from the proposed project only. This analysis determines whether or not a proposed project has a significant impact on ambient air, and therefore, requires a full impact analysis.

**Full Impact Analysis** - Only required if the significant impact analysis exceeds the significant contribution level - evaluates the emissions from the facility, including the emissions increase from the proposed project. This analysis determines whether the facility, with the emissions increase, complies with the NAAQS.

1. Provide the results of the significant impact analysis in  $\mu\text{g}/\text{m}^3$ .
2. Provide the results of the full impact analysis in  $\mu\text{g}/\text{m}^3$  (if required).
3. List the background concentration in  $\text{mg}/\text{m}^3$ . Contact the Stationary Source Modeling Coordinator at (208) 373-0502 for the current background concentrations for the area of interest. (Not needed if full impact analysis is not required.)
4. Provide the total ambient impact in  $\text{mg}/\text{m}^3$ . The total ambient impact is the sum of the background concentration and the full impact analysis result.
5. Calculate the percent of the NAAQS that the total ambient impact analysis represents.



## Instructions for Form MI2

This form is designed to provide the air quality modeler with information on the stack characteristics of each point source located at the facility. This information may be used by the IDEQ to perform an air quality analysis or to review an air quality analysis submitted with the permit application or requested by the IDEQ.

Please fill in the same company name, facility name, facility ID number, and brief project description as on Form CS in the boxes provided. This is useful in case any pages of the application get separated.

1. Provide the name of the emission unit. This name should match names on other submittals to IDEQ and within this application.
2. Provide the identification number for the stack which the emission unit exits.
3. Provide the UTM locations for each point source. The UTM Easting and UTM Northing are the coordinates for the center of the point source.
4. Provide the elevation of the base of the stack. This elevation must be calculated by the same method as the buildings and receptor elevation.
5. Provide the height of the stack, from the ground.
6. Provide the stack diameter that is included in the modeling analysis. Refer to the State of Idaho Modeling Guideline for guidance on developing the appropriate diameter.
7. Provide the stack exit temperature. Include documentation and justification for the exit temperature used.
8. Provide the stack exit flowrate. Include documentation and justification for the exit flowrate used.
9. Provide the stack exit velocity. Include documentation and justification for the exit velocity used.
10. Provide the orientation of the stack (horizontal or vertical). Indicate whether there is an obstruction on the stack, such as a raincap.



### Instructions for Form M13

This form is designed to provide the air quality modeler with information on the characteristics of each fugitive source located at the facility. This information may be used by the IDEQ to perform an air quality analysis or to review an air quality analysis submitted with the permit application or requested by the IDEQ. Please fill in the same company name, facility name, facility ID number, and brief project description as on Form CS in the boxes provided. This is useful in case any pages of the application get separated.

- Fugitive sources are typically modeled as either area or volume sources. Area sources are used to model fugitives from sources such as roads or parking lots, while volume sources are typically used to model fugitives from piles. Refer to the State of Idaho Air Quality Modeling Guideline for additional guidance on modeling fugitive sources.
1. Provide the name of the fugitive source. This name should match names used on other submittals to IDEQ and within this application.
  2. Provide the identification number for the fugitive source.
  3. Provide the UTM locations of the fugitive source. The UTM Easting and UTM Northing are the coordinates for the center of the fugitive source.
  4. Provide the elevation of the base of the fugitive source. This elevation must be calculated by the same method as the buildings and receptor elevation.
  5. Provide the height of the fugitive source, from the ground. This is used for an elevated release. If the fugitive source is at ground level enter zero.
  6. Provide the easterly length of the fugitive source.
  7. Provide the northly length of the fugitive source.
  8. Provide the angle from north, in degrees. This allows for accurate evaluation of the alignment of the fugitive source.
  9. Provide the initial vertical dimension of the fugitive source. Refer to the State of Idaho Modeling Guideline for guidance on estimating this value.
  10. Provide the initial horizontal dimension of the fugitive source. This parameter is only used for volume sources. Refer to the State of Idaho Modeling Guideline for guidance on estimating this value.



## Instructions for Form M14

This form is designed to provide the air quality modeler with information on the buildings and structures located at the facility. This information may be used by the IDEQ to perform an air quality analysis or to review an air quality analysis submitted with the permit application or requested by the IDEQ.

Please fill in the same company name, facility name, facility ID number, and brief project description in the boxes provided. This is useful in case any pages of the application get separated.

1. Provide the building ID number.
2. Provide the length of the building.
3. Provide the width of the building.
4. Provide the base elevation of the building. This elevation must be calculated by the same method as the sources and receptor elevation.
5. Provide the height of the building, from the ground.
6. Provide the number of tiers on the building. Refer to the State of Idaho Modeling Guideline for guidance on this topic.
7. Provide a description of the building.



**DEQ AIR QUALITY PROGRAM**  
 1410 N. Hilton, Boise, ID 83706  
 For assistance, call the  
**Air Permit Hotline – 1-877-5PERMIT**

# AIR PERMIT APPLICATION

Revision 6  
 10/7/09

For each box in the table below, CTRL+click on the blue underlined text for instructions and information.

IDENTIFICATION	
1. Company Name:  	2. Facility Name:  South Rasmussen Mine
3. Brief Project Description:      Proposed installation of a 100 kW diesel engine generator that will be used to run evaporation devices at the Smith Pond site.	
APPLICABILITY DETERMINATION	
4. List applicable subparts of the New Source Performance Standards (NSPS) ( <u>40 CFR part 60</u> ).  Examples of NSPS affected emissions units include internal combustion engines, boilers, turbines, etc. The applicant must thoroughly review the list of affected emissions units.	List of applicable subpart(s):  40 CFR 60 Subpart A 40 CFR 60 Subpart IIII  <input type="checkbox"/> Not Applicable
5. List applicable subpart(s) of the National Emission Standards for Hazardous Air Pollutants (NESHAP) found in <u>40 CFR part 61</u> and <u>40 CFR part 63</u> .  Examples of affected emission units include solvent cleaning operations, industrial cooling towers, paint stripping and miscellaneous surface coating. <u>EPA has a web page dedicated to NESHAP</u> that should be useful to applicants.	List of applicable subpart(s):  40 CFR 63 Subpart ZZZZ  <input type="checkbox"/> Not Applicable
6. For each subpart identified above, conduct a complete a regulatory analysis using the instructions and referencing the example provided on the following pages.  <b>Note</b> - Regulatory reviews must be submitted with sufficient detail so that DEQ can verify applicability and document in legal terms why the regulation applies. Regulatory reviews that are submitted with insufficient detail will be determined incomplete.	<input checked="" type="checkbox"/> A detailed regulatory review is provided (Follow instructions and example).  <input type="checkbox"/> DEQ has already been provided a detailed regulatory review. Give a reference to the document including the date.
<b>IF YOU ARE UNSURE HOW TO ANSWER ANY OF THESE QUESTIONS, CALL THE AIR PERMIT HOTLINE AT 1-877-5PERMIT</b>	
<p><i>It is emphasized that it is the applicant's responsibility to satisfy all technical and regulatory requirements, and that DEQ will help the applicant understand what those requirements are <u>prior</u> to the application being submitted but that DEQ will not perform the required technical or regulatory analysis on the applicant's behalf.</i></p>	

**40 CFR 60 Subpart A--General Provisions**  
**40 CFR §60.1 Applicability.**

(a) Except as provided in subparts B and C, the provisions of this part apply to the owner or operator of any stationary source which contains an affected facility, the construction or modification of which is commenced after the date of publication in this part of any standard (or, if earlier, the date of publication of any proposed standard) applicable to that facility.

(b) Any new or revised standard of performance promulgated pursuant to section 111(b) of the Act shall apply to the owner or operator of any stationary source which contains an affected facility, the construction or modification of which is commenced after the date of publication in this part of such new or revised standard (or, if earlier, the date of publication of any proposed standard) applicable to that facility.

(c) In addition to complying with the provisions of this part, the owner or operator of an affected facility may be required to obtain an operating permit issued to stationary sources by an authorized State air pollution control agency or by the Administrator of the U.S. Environmental Protection Agency (EPA) pursuant to title V of the Clean Air Act (Act) as amended November 15, 1990 (42 U.S.C. 7661). For more information about obtaining an operating permit see part 70 of this chapter.

(d) Site-specific standard for Merck & Co., Inc.'s Stonewall Plant in Elkton, Virginia. (1) This paragraph applies only to the pharmaceutical manufacturing facility, commonly referred to as the Stonewall Plant, located at Route 340 South, in Elkton, Virginia ("site").

(d)(2) Except for compliance with 40 CFR 60.49b(u), the site shall have the option of either complying directly with the requirements of this part, or reducing the site-wide emissions caps in accordance with the procedures set forth in a permit issued pursuant to 40 CFR 52.2454. If the site chooses the option of reducing the site-wide emissions caps in accordance with the procedures set forth in such permit, the requirements of such permit shall apply in lieu of the otherwise applicable requirements of this part.

(d)(3) Notwithstanding the provisions of paragraph (d)(2) of this section, for any provisions of this part except for Subpart Kb, the owner/operator of the site shall comply with the applicable provisions of this part if the Administrator determines that compliance with the provisions of this part is necessary for achieving the objectives of the regulation and the Administrator notifies the site in accordance with the provisions of the permit issued pursuant to 40 CFR 52.2454.

*The Smith Pond Generator will be a stationary source with a new compression ignition engine model year 2011 with a rating of 156.9 BHP and displacement of 1.1 liters per cylinder and is subject to 40 CFR 60 Subpart IIII, therefore underlined requirements of the general provisions in Subpart A apply to this emission unit.*

**40 CFR §60.2 Definitions.**

The terms used in this part are defined in the Act or in this section as follows:

Act means the Clean Air Act (42 U.S.C. 7401 et seq.)

Administrator means the Administrator of the Environmental Protection Agency or his authorized representative.

Affected facility means, with reference to a stationary source, any apparatus to which a standard is applicable.

Alternative method means any method of sampling and analyzing for an air pollutant which is not a reference or equivalent method but which has been demonstrated to the Administrator's satisfaction to, in specific cases, produce results adequate for his determination of compliance.

Approved permit program means a State permit program approved by the Administrator as meeting the requirements of part 70 of this chapter or a Federal permit program established in this chapter pursuant to title V of the Act (42 U.S.C. 7661).

Capital expenditure means an expenditure for a physical or operational change to an existing facility which exceeds the product of the applicable "annual asset guideline repair allowance percentage" specified in the latest edition of Internal Revenue Service (IRS) Publication 534 and the existing facility's basis, as defined by section 1012 of the Internal Revenue Code. However, the total expenditure for a physical or operational change to an existing facility must not be reduced by any "excluded additions" as defined in IRS Publication 534, as would be done for tax purposes.

Clean coal technology demonstration project means a project using funds appropriated under the heading 'Department of Energy-Clean Coal Technology', up to a total amount of \$2,500,000,000 for commercial demonstrations of clean coal technology, or similar projects funded through appropriations for the Environmental Protection Agency.

Commenced means, with respect to the definition of new source in section 111(a)(2) of the Act, that an owner or operator has undertaken a continuous program of construction or modification or that an owner or operator has entered into a contractual obligation to undertake and complete, within a reasonable time, a continuous program of construction or modification.

Construction means fabrication, erection, or installation of an affected facility.

Continuous monitoring system means the total equipment, required under the emission monitoring sections in applicable subparts, used to sample and condition (if applicable), to analyze, and to provide a permanent record of emissions or process parameters.

Electric utility steam generating unit means any steam electric generating unit that is

constructed for the purpose of supplying more than one-third of its potential electric output capacity and more than 25 MW electrical output to any utility power distribution system for sale. Any steam supplied to a steam distribution system for the purpose of providing steam to a steam-electric generator that would produce electrical energy for sale is also considered in determining the electrical energy output capacity of the affected facility.

Equivalent method means any method of sampling and analyzing for an air pollutant which has been demonstrated to the Administrator's satisfaction to have a consistent and quantitatively known relationship to the reference method, under specified conditions.

Excess Emissions and Monitoring Systems Performance Report is a report that must be submitted periodically by a source in order to provide data on its compliance with stated emission limits and operating parameters, and on the performance of its monitoring systems.

Existing facility means, with reference to a stationary source, any apparatus of the type for which a standard is promulgated in this part, and the construction or modification of which was commenced before the date of proposal of that standard; or any apparatus which could be altered in such a way as to be of that type.

Force majeure means, for purposes of §60.8, an event that will be or has been caused by circumstances beyond the control of the affected facility, its contractors, or any entity controlled by the affected facility that prevents the owner or operator from complying with the regulatory requirement to conduct performance tests within the specified timeframe despite the affected facility's best efforts to fulfill the obligation. Examples of such events are acts of nature, acts of war or terrorism, or equipment failure or safety hazard beyond the control of the affected facility.

Isokinetic sampling means sampling in which the linear velocity of the gas entering the sampling nozzle is equal to that of the undisturbed gas stream at the sample point.

Issuance of a part 70 permit will occur, if the State is the permitting authority, in accordance with the requirements of part 70 of this chapter and the applicable, approved State permit program. When the EPA is the permitting authority, issuance of a title V permit occurs immediately after the EPA takes final action on the final permit.

Malfunction means any sudden, infrequent, and not reasonably preventable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner. Failures that are caused in part by poor maintenance or careless operation are not malfunctions.

Modification means any physical change in, or change in the method of operation of, an existing facility which increases the amount of any air pollutant (to which a standard applies) emitted into the atmosphere by that facility or which results in the emission of any air pollutant (to which a standard applies) into the atmosphere not previously emitted.

Monitoring device means the total equipment, required under the monitoring of operations sections in applicable subparts, used to measure and record (if applicable) process

parameters.

Nitrogen oxides means all oxides of nitrogen except nitrous oxide, as measured by test methods set forth in this part.

One-hour period means any 60-minute period commencing on the hour.

Opacity means the degree to which emissions reduce the transmission of light and obscure the view of an object in the background.

Owner or operator means any person who owns, leases, operates, controls, or supervises an affected facility or a stationary source of which an affected facility is a part.

Part 70 permit means any permit issued, renewed, or revised pursuant to part 70 of this chapter.

Particulate matter means any finely divided solid or liquid material, other than uncombined water, as measured by the reference methods specified under each applicable subpart, or an equivalent or alternative method.

Permit program means a comprehensive State operating permit system established pursuant to title V of the Act (42 U.S.C. 7661) and regulations codified in part 70 of this chapter and applicable State regulations, or a comprehensive Federal operating permit system established pursuant to title V of the Act and regulations codified in this chapter.

Permitting authority means:

(1) The State air pollution control agency, local agency, other State agency, or other agency authorized by the Administrator to carry out a permit program under part 70 of this chapter;  
or

(2) The Administrator, in the case of EPA-implemented permit programs under title V of the Act (42 U.S.C. 7661).

Proportional sampling means sampling at a rate that produces a constant ratio of sampling rate to stack gas flow rate.

Reactivation of a very clean coal-fired electric utility steam generating unit means any physical change or change in the method of operation associated with the commencement of commercial operations by a coal-fired utility unit after a period of discontinued operation where the unit:

(1) Has not been in operation for the two-year period prior to the enactment of the Clean Air Act Amendments of 1990, and the emissions from such unit continue to be carried in the permitting authority's emissions inventory at the time of enactment;

(2) Was equipped prior to shut-down with a continuous system of emissions control that achieves a removal efficiency for sulfur dioxide of no less than 85 percent and a removal

efficiency for particulates of no less than 98 percent;

(3) Is equipped with low-NOx burners prior to the time of commencement of operations following reactivation; and

(4) Is otherwise in compliance with the requirements of the Clean Air Act.

Reference method means any method of sampling and analyzing for an air pollutant as specified in the applicable subpart.

Repowering means replacement of an existing coal-fired boiler with one of the following clean coal technologies: atmospheric or pressurized fluidized bed combustion, integrated gasification combined cycle, magnetohydrodynamics, direct and indirect coal-fired turbines, integrated gasification fuel cells, or as determined by the Administrator, in consultation with the Secretary of Energy, a derivative of one or more of these technologies, and any other technology capable of controlling multiple combustion emissions simultaneously with improved boiler or generation efficiency and with significantly greater waste reduction relative to the performance of technology in widespread commercial use as of November 15, 1990. Repowering shall also include any oil and/or gas-fired unit which has been awarded clean coal technology demonstration funding as of January 1, 1991, by the Department of Energy.

Run means the net period of time during which an emission sample is collected. Unless otherwise specified, a run may be either intermittent or continuous within the limits of good engineering practice.

Shutdown means the cessation of operation of an affected facility for any purpose.

Six-minute period means any one of the 10 equal parts of a one-hour period.

Standard means a standard of performance proposed or promulgated under this part.

Standard conditions means a temperature of 293 K (68° F) and a pressure of 101.3 kilopascals (29.92 in Hg).

Startup means the setting in operation of an affected facility for any purpose.

State means all non-Federal authorities, including local agencies, interstate associations, and State-wide programs, that have delegated authority to implement: (1) The provisions of this part; and/or (2) the permit program established under part 70 of this chapter. The term State shall have its conventional meaning where clear from the context.

Stationary source means any building, structure, facility, or installation which emits or may emit any air pollutant.

Title V permit means any permit issued, renewed, or revised pursuant to Federal or State regulations established to implement title V of the Act (42 U.S.C. 7661). A title V permit issued by a State permitting authority is called a part 70 permit in this part.

Volatile Organic Compound means any organic compound which participates in atmospheric photochemical reactions; or which is measured by a reference method, an equivalent method, an alternative method, or which is determined by procedures specified under any subpart.

*The Smith Pond Generator will be a stationary source with a new compression ignition engine model year 2011 with a rating of 156.9 BHP and displacement of 1.1 liters per cylinder. The engine is subject to 40 CFR 60 Subpart IIII, therefore underlined requirements of the general provisions in Subpart A apply to this emission unit. Additional definitions specific to 40 CFR 60 Subpart IIII are provided in this document under 40 CFR 60.4219.*

#### 40 CFR §60.3 Units And Abbreviations.

Used in this part are abbreviations and symbols of units of measure. These are defined as follows:

##### (a) System International (SI) units of measure:

A--ampere

g--gram

Hz--hertz

J--joule

K--degree Kelvin

kg--kilogram

m--meter

m<sup>3</sup>--cubic meter

mg--milligram--10<sup>-3</sup> gram

mm--millimeter--10<sup>-3</sup> meter

Mg--megagram--10<sup>6</sup> gram

mol--mole

N--newton

ng--nanogram--10<sup>-9</sup> gram

nm--nanometer--10<sup>-9</sup> meter

Pa--pascal

s--second

V--volt

W--watt

--ohm

μg--microgram--10<sup>-6</sup> gram

##### (b) Other units of measure:

Btu--British thermal unit

°C--degree Celsius (centigrade)

cal--calorie

cfm--cubic feet per minute

cu ft--cubic feet  
dcf--dry cubic feet  
dcm--dry cubic meter  
dscf--dry cubic feet at standard conditions  
dscm--dry cubic meter at standard conditions  
eq--equivalent  
°F--degree Fahrenheit  
ft--feet  
gal--gallon  
gr--grain  
g-eq--gram equivalent  
hr--hour  
in--inch  
k--1,000  
l--liter  
lpm--liter per minute  
lb--pound  
meq--milliequivalent  
min--minute  
ml--milliliter  
mol. wt.--molecular weight  
ppb--parts per billion  
ppm--parts per million  
psia--pounds per square inch absolute  
psig--pounds per square inch gage  
°R--degree Rankine  
scf--cubic feet at standard conditions  
scfh--cubic feet per hour at standard conditions  
scm--cubic meter at standard conditions  
sec--second  
sq ft--square feet  
std--at standard conditions

**(c) Chemical nomenclature:**

CdS--cadmium sulfide  
CO--carbon monoxide  
CO2--carbon dioxide  
HCl--hydrochloric acid  
Hg--mercury  
H2O--water  
H2S--hydrogen sulfide  
H2SO4--sulfuric acid  
N2--nitrogen  
NO--nitric oxide  
NO2--nitrogen dioxide

NOx--nitrogen oxides

O2--oxygen

SO2--sulfur dioxide

SO3--sulfur trioxide

SOx--sulfur oxides

(d) Miscellaneous:

A.S.T.M.--American Society for Testing and Materials

*The Smith Pond Generator will be a stationary source with a new compression ignition engine model year 2011 with a rating of 156.9 BHP and displacement of 1.1 liters per cylinder and is subject to 40 CFR 60 Subpart IIII, therefore underlined requirements of the general provisions in Subpart A apply to this emission unit.*

**40 CFR §60.4 Address.**

(a) All requests, reports, applications, submittals, and other communications to the Administrator pursuant to this part shall be submitted in duplicate to the appropriate Regional Office of the U.S. Environmental Protection Agency to the attention of the Director of the Division indicated in the following list of EPA Regional Offices.

Region X (Alaska, Oregon, Idaho, Washington), Director, Air and Waste Management Division, U.S. Environmental Protection Agency, 1200 Sixth Avenue, Seattle, WA 98101.

(b) Section 111(c) directs the Administrator to delegate to each State, when appropriate, the authority to implement and enforce standards of performance for new stationary sources located in such State. All information required to be submitted to EPA under paragraph (a) of this section, must also be submitted to the appropriate State Agency of any State to which this authority has been delegated (provided, that each specific delegation may except sources from a certain Federal or State reporting requirement). The appropriate mailing address for those States whose delegation request has been approved is as follows:

*The Smith Pond Generator will be a stationary source with a new compression ignition engine model year 2011 with a rating of 156.9 BHP and displacement of 1.1 liters per cylinder and is subject to 40 CFR 60 Subpart IIII, therefore underlined requirements of the general provisions in Subpart A apply to this emission unit.*

*P4 will submit all requests, reports, applications, submittals and other communications associated with 40 CFR 60 Subparts A & IIII to:*

*Department of Environmental Quality  
Pocatello Regional Office  
444 Hospital Way #300  
Pocatello, ID 83201*

*All other provisions of 40 CFR 60.4(b) have been omitted because the facility is located in Idaho and those provisions apply to facilities located in other states.*

**40 CFR §60.5 Determination Of Construction Or Modification.**

(a) When requested to do so by an owner or operator, the Administrator will make a determination of whether action taken or intended to be taken by such owner or operator constitutes construction (including reconstruction) or modification or the commencement thereof within the meaning of this part.

(b) The Administrator will respond to any request for a determination under paragraph (a) of this section within 30 days of receipt of such request.

*The Smith Pond Generator will be a stationary source with a new compression ignition engine model year 2011 with a rating of 156.9 BHP and displacement of 1.1 liters per cylinder and is subject to 40 CFR 60 Subpart IIII, therefore underlined requirements of the general provisions in Subpart A apply to this emission unit.*

**40 CFR §60.6 Review Of Plans.**

(a) When requested to do so by an owner or operator, the Administrator will review plans for construction or modification for the purpose of providing technical advice to the owner or operator.

(b)(1) A separate request shall be submitted for each construction or modification project.

(b)(2) Each request shall identify the location of such project, and be accompanied by technical information describing the proposed nature, size, design, and method of operation of each affected facility involved in such project, including information on any equipment to be used for measurement or control of emissions.

(c) Neither a request for plans review nor advice furnished by the Administrator in response to such request shall (1) relieve an owner or operator of legal responsibility for compliance with any provision of this part or of any applicable State or local requirement, or (2) prevent the Administrator from implementing or enforcing any provision of this part or taking any other action authorized by the Act.

*The Smith Pond Generator will be a stationary source with a new compression ignition engine model year 2011 with a rating of 156.9 BHP and displacement of 1.1 liters per cylinder and is subject to 40 CFR 60 Subpart IIII, therefore underlined requirements of the general provisions in Subpart A apply to this emission unit.*

**40 CFR §60.7 Notification And Record Keeping.**

(a) Any owner or operator subject to the provisions of this part shall furnish the Administrator written notification or, if acceptable to both the Administrator and the owner or operator of a source, electronic notification, as follows:

- (a)(1) A notification of the date construction (or reconstruction as defined under §60.15) of an affected facility is commenced postmarked no later than 30 days after such date. This requirement shall not apply in the case of mass-produced facilities which are purchased in completed form.
- (a)(2) [Reserved]
- (a)(3) A notification of the actual date of initial startup of an affected facility postmarked within 15 days after such date.
- (a)(4) A notification of any physical or operational change to an existing facility which may increase the emission rate of any air pollutant to which a standard applies, unless that change is specifically exempted under an applicable subpart or in §60.14(e). This notice shall be postmarked 60 days or as soon as practicable before the change is commenced and shall include information describing the precise nature of the change, present and proposed emission control systems, productive capacity of the facility before and after the change, and the expected completion date of the change. The Administrator may request additional relevant information subsequent to this notice.
- (a)(5) A notification of the date upon which demonstration of the continuous monitoring system performance commences in accordance with §60.13(c). Notification shall be postmarked not less than 30 days prior to such date.
- (a)(6) A notification of the anticipated date for conducting the opacity observations required by §60.11(e)(1) of this part. The notification shall also include, if appropriate, a request for the Administrator to provide a visible emissions reader during a performance test. The notification shall be postmarked not less than 30 days prior to such date.
- (a)(7) A notification that continuous opacity monitoring system data results will be used to determine compliance with the applicable opacity standard during a performance test required by §60.8 in lieu of Method 9 observation data allowed by §60.11(e)(5) of this part. This notification shall be postmarked not less than 30 days prior to the date of the performance test.
- (b) Any owner or operator subject to the provisions of this part shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative.
- (c) Each owner or operator required to install a continuous monitoring device shall submit excess emissions and monitoring systems performance report (excess emissions are defined in applicable subparts) and-or summary report form (see paragraph (d) of this section) to the Administrator semiannually, except when: more frequent reporting is specifically required by an applicable subpart; or the Administrator, on a case-by-case basis, determines that more frequent reporting is necessary to accurately assess the compliance status of the source. All reports shall be postmarked by the 30th day following the end of each six-month period. Written reports of excess emissions shall include the following information:

(c)(1) The magnitude of excess emissions computed in accordance with §60.13(h), any conversion factor(s) used, and the date and time of commencement and completion of each time period of excess emissions. The process operating time during the reporting period.

(c)(2) Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the affected facility. The nature and cause of any malfunction (if known), the corrective action taken or preventative measures adopted.

(c)(3) The date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks and the nature of the system repairs or adjustments.

(c)(4) When no excess emissions have occurred or the continuous monitoring system(s) have not been inoperative, repaired, or adjusted, such information shall be stated in the report.

(d) The summary report form shall contain the information and be in the format shown in figure 1 unless otherwise specified by the Administrator. One summary report form shall be submitted for each pollutant monitored at each affected facility.

(d)(1) If the total duration of excess emissions for the reporting period is less than 1 percent of the total operating time for the reporting period and CMS downtime for the reporting period is less than 5 percent of the total operating time for the reporting period, only the summary report form shall be submitted and the excess emission report described in §60.7(c) need not be submitted unless requested by the Administrator.

(d)(2) If the total duration of excess emissions for the reporting period is 1 percent or greater of the total operating time for the reporting period or the total CMS downtime for the reporting period is 5 percent or greater of the total operating time for the reporting period, the summary report form and the excess emission report described in §60.7(c) shall both be submitted.

**FIGURE 1--SUMMARY REPORT--GASEOUS AND OPACITY EXCESS EMISSION AND MONITORING SYSTEM PERFORMANCE**

Pollutant (Circle One--SO2/NOX/TRS/H2S/CO/Opacity)  
Reporting period dates: From ----- to -----  
Company: \_\_\_\_\_  
Emission Limitation-----  
Address: \_\_\_\_\_  
Monitor Manufacturer and Model No.-----  
Date of Latest CMS Certification or Audit-----  
Process Unit(s) Description: \_\_\_\_\_  
Total source operating time in reporting period1-----

Emission data summary <sup>1</sup>	CMS performance summary <sup>1</sup>
1. Duration of excess emissions in reporting period due to:	1. CMS downtime in reporting period due to:
a. Startup/shutdown.....	a. Monitor equipment malfunctions.....
b. Control equipment problems.....	b. Non-Monitor equipment malfunctions.....
c. Process problems.....	c. Quality assurance calibration.....
d. Other known causes.....	d. Other known causes.....
e. Unknown causes.....	e. Unknown causes.....
2. Total duration of excess emission.....	2. Total CMS Downtime.....
3. Total duration of excess emissions % 2 x (100) [Total source operating time].	3. [Total CMS Downtime] x (100) % 2   [Total source operating time].

1 For opacity, record all times in minutes. For gases, record all times in hours.

2 For the reporting period: If the total duration of excess emissions is 1 percent or greater of the total operating time or the total CMS downtime is 5 percent or greater of the total operating time, both the summary report form and the excess emission report described in §60.7(c) shall be submitted.

On a separate page, describe any changes since last quarter in CMS, process or controls. I certify that the information contained in this report is true, accurate, and complete.

-----  
Name

-----  
Signature

-----  
Title

-----  
Date

(e)(1) Notwithstanding the frequency of reporting requirements specified in paragraph (c) of this section, an owner or operator who is required by an applicable subpart to submit excess emissions and monitoring systems performance reports (and summary reports) on a quarterly (or more frequent) basis may reduce the frequency of reporting for that standard to semiannual if the following conditions are met:

(e)(1)(i) For 1 full year (e.g., 4 quarterly or 12 monthly reporting periods) the affected facility's excess emissions and monitoring systems reports submitted to comply with a standard under this part continually demonstrate that the facility is in compliance with the applicable standard;

(e)(1)(ii) The owner or operator continues to comply with all recordkeeping and monitoring

requirements specified in this subpart and the applicable standard; and

(e)(1)(iii) The Administrator does not object to a reduced frequency of reporting for the affected facility, as provided in paragraph (e)(2) of this section.

(e)(2) The frequency of reporting of excess emissions and monitoring systems performance (and summary) reports may be reduced only after the owner or operator notifies the Administrator in writing of his or her intention to make such a change and the Administrator does not object to the intended change. In deciding whether to approve a reduced frequency of reporting, the Administrator may review information concerning the source's entire previous performance history during the required recordkeeping period prior to the intended change, including performance test results, monitoring data, and evaluations of an owner or operator's conformance with operation and maintenance requirements. Such information may be used by the Administrator to make a judgment about the source's potential for noncompliance in the future. If the Administrator disapproves the owner or operator's request to reduce the frequency of reporting, the Administrator will notify the owner or operator in writing within 45 days after receiving notice of the owner or operator's intention. The notification from the Administrator to the owner or operator will specify the grounds on which the disapproval is based. In the absence of a notice of disapproval within 45 days, approval is automatically granted.

(e)(3) As soon as monitoring data indicate that the affected facility is not in compliance with any emission limitation or operating parameter specified in the applicable standard, the frequency of reporting shall revert to the frequency specified in the applicable standard, and the owner or operator shall submit an excess emissions and monitoring systems performance report (and summary report, if required) at the next appropriate reporting period following the noncomplying event. After demonstrating compliance with the applicable standard for another full year, the owner or operator may again request approval from the Administrator to reduce the frequency of reporting for that standard as provided for in paragraphs (e)(1) and (e)(2) of this section.

(f) Any owner or operator subject to the provisions of this part shall maintain a file of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and all other information required by this part recorded in a permanent form suitable for inspection. The file shall be retained for at least two years following the date of such measurements, maintenance, reports, and records, except as follows;

(f)(1) This paragraph applies to owners or operators required to install a continuous emissions monitoring system (CEMS) where the CEMS installed is automated, and where the calculated data averages do not exclude periods of CEMS breakdown or malfunction. An automated CEMS records and reduces the measured data to the form of the pollutant emission standard through the use of a computerized data acquisition system. In lieu of maintaining a file of all CEMS subhourly measurements as required under paragraph (f) of this section, the owner or operator shall retain the most recent consecutive three averaging periods of subhourly measurements and a file that contains a hard copy of the data acquisition system algorithm used to reduce the measured data into the reportable form of

the standard.

(f)(2) This paragraph applies to owners or operators required to install a CEMS where the measured data is manually reduced to obtain the reportable form of the standard, and where the calculated data averages do not exclude periods of CEMS breakdown or malfunction. In lieu of maintaining a file of all CEMS subhourly measurements as required under paragraph (f) of this section, the owner or operator shall retain all subhourly measurements for the most recent reporting period. The subhourly measurements shall be retained for 120 days from the date of the most recent summary or excess emission report submitted to the Administrator.

(f)(3) The Administrator or delegated authority, upon notification to the source, may require the owner or operator to maintain all measurements as required by paragraph (f) of this section, if the Administrator or the delegated authority determines these records are required to more accurately assess the compliance status of the affected source.

(g) If notification substantially similar to that in paragraph (a) of this section is required by any other State or local agency, sending the Administrator a copy of that notification will satisfy the requirements of paragraph (a) of this section.

(h) Individual subparts of this part may include specific provisions which clarify or make inapplicable the provisions set forth in this section.

***The notification and recordkeeping requirements of 40 CFR 60.7 are replaced in 40 CFR 60 Subpart IIII by the requirements in 40 CFR 60.4214(a). The Smith Pond Generator has a new engine model year 2011 with a rating of 156.9 BHP and displacement of 1.1 liters per cylinder, is not equipped with a diesel particulate filter and is not an emergency engine, therefore is not subject to any notification or recordkeeping requirements in 40 CFR §60.4214.***

#### **40 CFR §60.8 Performance Tests.**

(a) Except as specified in paragraphs (a)(1),(a)(2), (a)(3), and (a)(4) of this section, within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup of such facility, or at such other times specified by this part, and at such other times as may be required by the Administrator under section 114 of the Act, the owner or operator of such facility shall conduct performance test(s) and furnish the Administrator a written report of the results of such performance test(s).

(a)(1) If a force majeure is about to occur, occurs, or has occurred for which the affected owner or operator intends to assert a claim of force majeure, the owner or operator shall notify the Administrator, in writing as soon as practicable following the date the owner or operator first knew, or through due diligence should have known that the event may cause or caused a delay in testing beyond the regulatory deadline, but the notification must occur before the performance test deadline unless the initial force majeure or a subsequent force majeure event delays the notice, and in such cases, the notification shall occur as soon as

practicable.

(a)(2) The owner or operator shall provide to the Administrator a written description of the force majeure event and a rationale for attributing the delay in testing beyond the regulatory deadline to the force majeure; describe the measures taken or to be taken to minimize the delay; and identify a date by which the owner or operator proposes to conduct the performance test. The performance test shall be conducted as soon as practicable after the force majeure occurs.

(a)(3) The decision as to whether or not to grant an extension to the performance test deadline is solely within the discretion of the Administrator. The Administrator will notify the owner or operator in writing of approval or disapproval of the request for an extension as soon as practicable.

(a)(4) Until an extension of the performance test deadline has been approved by the Administrator under paragraphs (a)(1), (2), and (3) of this section, the owner or operator of the affected facility remains strictly subject to the requirements of this part.

(b) Performance tests shall be conducted and data reduced in accordance with the test methods and procedures contained in each applicable subpart unless the Administrator (1) specifies or approves, in specific cases, the use of a reference method with minor changes in methodology, (2) approves the use of an equivalent method, (3) approves the use of an alternative method the results of which he has determined to be adequate for indicating whether a specific source is in compliance, (4) waives the requirement for performance tests because the owner or operator of a source has demonstrated by other means to the Administrator's satisfaction that the affected facility is in compliance with the standard, or (5) approves shorter sampling times and smaller sample volumes when necessitated by process variables or other factors. Nothing in this paragraph shall be construed to abrogate the Administrator's authority to require testing under section 114 of the Act.

(c) Performance tests shall be conducted under such conditions as the Administrator shall specify to the plant operator based on representative performance of the affected facility. The owner or operator shall make available to the Administrator such records as may be necessary to determine the conditions of the performance tests. Operations during periods of startup, shutdown, and malfunction shall not constitute representative conditions for the purpose of a performance test nor shall emissions in excess of the level of the applicable emission limit during periods of startup, shutdown, and malfunction be considered a violation of the applicable emission limit unless otherwise specified in the applicable standard.

(d) The owner or operator of an affected facility shall provide the Administrator at least 30 days prior notice of any performance test, except as specified under other subparts, to afford the Administrator the opportunity to have an observer present. If after 30 days notice for an initially scheduled performance test, there is a delay (due to operational problems, etc.) in conducting the scheduled performance test, the owner or operator of an affected facility shall notify the Administrator (or delegated State or local agency) as soon as possible of any delay in the original test date, either by providing at least 7 days prior notice of the rescheduled date of the performance test, or by arranging a rescheduled date with the Administrator (or delegated State or local agency) by mutual agreement.

(e) The owner or operator of an affected facility shall provide, or cause to be provided, performance testing facilities as follows:

(e)(1) Sampling ports adequate for test methods applicable to such facility. This includes (i) constructing the air pollution control system such that volumetric flow rates and pollutant emission rates can be accurately determined by applicable test methods and procedures and (ii) providing a stack or duct free of cyclonic flow during performance tests, as demonstrated by applicable test methods and procedures.

(e)(2) Safe sampling platform(s).

(e)(3) Safe access to sampling platform(s).

(e)(4) Utilities for sampling and testing equipment.

(f) Unless otherwise specified in the applicable subpart, each performance test shall consist of three separate runs using the applicable test method. Each run shall be conducted for the time and under the conditions specified in the applicable standard. For the purpose of determining compliance with an applicable standard, the arithmetic means of results of the three runs shall apply. In the event that a sample is accidentally lost or conditions occur in which one of the three runs must be discontinued because of forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological conditions, or other circumstances, beyond the owner or operator's control, compliance may, upon the Administrator's approval, be determined using the arithmetic mean of the results of the two other runs.

(g) The performance testing shall include a test method performance audit (PA) during the performance test. The PAs consist of blind audit samples supplied by an accredited audit sample provider and analyzed during the performance test in order to provide a measure of test data bias. Gaseous audit samples are designed to audit the performance of the sampling system as well as the analytical system and must be collected by the sampling system during the compliance test just as the compliance samples are collected. If a liquid or solid audit sample is designed to audit the sampling system, it must also be collected by the sampling system during the compliance test. If multiple sampling systems or sampling trains are used during the compliance test for any of the test methods, the tester is only required to use one of the sampling systems per method to collect the audit sample. The audit sample must be analyzed by the same analyst using the same analytical reagents and analytical system and at the same time as the compliance samples. Retests are required when there is a failure to produce acceptable results for an audit sample. However, if the audit results do not affect the compliance or noncompliance status of the affected facility, the compliance authority may waive the reanalysis requirement, further audits, or retests and accept the results of the compliance test. Acceptance of the test results shall constitute a waiver of the reanalysis requirement, further audits, or retests. The compliance authority may also use the audit sample failure and the compliance test results as evidence to determine the compliance or noncompliance status of the affected facility. A blind audit sample is a sample whose value is known only to the sample provider and is not revealed to the tested facility until after they report the measured value of the audit sample. For pollutants that exist in the gas phase at ambient temperature, the audit sample shall consist

of an appropriate concentration of the pollutant in air or nitrogen that can be introduced into the sampling system of the test method at or near the same entry point as a sample from the emission source. If no gas phase audit samples are available, an acceptable alternative is a sample of the pollutant in the same matrix that would be produced when the sample is recovered from the sampling system as required by the test method. For samples that exist only in a liquid or solid form at ambient temperature, the audit sample shall consist of an appropriate concentration of the pollutant in the same matrix that would be produced when the sample is recovered from the sampling system as required by the test method. An accredited audit sample provider (AASP) is an organization that has been accredited to prepare audit samples by an independent, third party accrediting body.

(g)(1) The source owner, operator, or representative of the tested facility shall obtain an audit sample, if commercially available, from an AASP for each test method used for regulatory compliance purposes. No audit samples are required for the following test methods: Methods 3C of Appendix A-3 of Part 60, Methods 6C, 7E, 9, and 10 of Appendix A-4 of Part 60, Method 18 of Appendix A-6 of Part 60, Methods 20, 22, and 25A of Appendix A-7 of Part 60, and Methods 303, 318, 320, and 321 of Appendix A of Part 63. If multiple sources at a single facility are tested during a compliance test event, only one audit sample is required for each method used during a compliance test. The compliance authority responsible for the compliance test may waive the requirement to include an audit sample if they believe that an audit sample is not necessary. "Commercially available" means that two or more independent AASPs have blind audit samples available for purchase. If the source owner, operator, or representative cannot find an audit sample for a specific method, the owner, operator, or representative shall consult the EPA Web site at the following URL, <http://www.epa.gov/ttn/emc>, to confirm whether there is a source that can supply an audit sample for that method. If the EPA Web site does not list an available audit sample at least 60 days prior to the beginning of the compliance test, the source owner, operator, or representative shall not be required to include an audit sample as part of the quality assurance program for the compliance test. When ordering an audit sample, the source, operator, or representative shall give the sample provider an estimate for the concentration of each pollutant that is emitted by the source or the estimated concentration of each pollutant based on the permitted level and the name, address, and phone number of the compliance authority. The source owner, operator, or representative shall report the results for the audit sample along with a summary of the emission test results for the audited pollutant to the compliance authority and shall report the results of the audit sample to the AASP. The source owner, operator, or representative shall make both reports at the same time and in the same manner or shall report to the compliance authority first and then report to the AASP. If the method being audited is a method that allows the samples to be analyzed in the field and the tester plans to analyze the samples in the field, the tester may analyze the audit samples prior to collecting the emission samples provided a representative of the compliance authority is present at the testing site. The tester may request and the compliance authority may grant a waiver to the requirement that a representative of the compliance authority must be present at the testing site during the field analysis of an audit sample. The source owner, operator, or representative may report the results of the audit sample to the compliance authority and report the results of the audit sample to the AASP prior to collecting any emission samples. The test protocol and final test report shall document whether an audit sample was ordered and utilized and the pass/fail results as applicable.

(g)(2) An AASP shall have and shall prepare, analyze, and report the true value of audit samples in accordance with a written technical criteria document that describes how audit samples will be prepared and distributed in a manner that will ensure the integrity of the audit sample program. An acceptable technical criteria document shall contain standard operating procedures for all of the following operations:

(g)(2)(i) Preparing the sample;

(g)(2)(ii) Confirming the true concentration of the sample;

(g)(2)(iii) Defining the acceptance limits for the results from a well qualified tester. This procedure must use well established statistical methods to analyze historical results from well qualified testers. The acceptance limits shall be set so that there is 95 percent confidence that 90 percent of well qualified labs will produce future results that are within the acceptance limit range.

(g)(2)(iv) Providing the opportunity for the compliance authority to comment on the selected concentration level for an audit sample;

(g)(2)(v) Distributing the sample to the user in a manner that guarantees that the true value of the sample is unknown to the user;

(g)(2)(vi) Recording the measured concentration reported by the user and determining if the measured value is within acceptable limits;

(g)(2)(vii) The AASP shall report the results from each audit sample in a timely manner to the compliance authority and then to the source owner, operator, or representative. The AASP shall make both reports at the same time and in the same manner or shall report to the compliance authority first and then report to the source owner, operator, or representative. The results shall include the name of the facility tested, the date on which the compliance test was conducted, the name of the company performing the sample collection, the name of the company that analyzed the compliance samples including the audit sample, the measured result for the audit sample, and whether the testing company passed or failed the audit. The AASP shall report the true value of the audit sample to the compliance authority. The AASP may report the true value to the source owner, operator, or representative if the AASP's operating plan ensures that no laboratory will receive the same audit sample twice.

(g)(2)(viii) Evaluating the acceptance limits of samples at least once every two years to determine in cooperation with the voluntary consensus standard body if they should be changed;

(g)(2)(ix) Maintaining a database, accessible to the compliance authorities, of results from the audit that shall include the name of the facility tested, the date on which the compliance test was conducted, the name of the company performing the sample collection, the name of the company that analyzed the compliance samples including the audit sample, the measured result for the audit sample, the true value of the audit sample, the acceptance range for the measured value, and whether the testing company passed or failed the audit.

(g)(3) The accrediting body shall have a written technical criteria document that describes how it will ensure that the AASP is operating in accordance with the AASP technical criteria document that describes how audit samples are to be prepared and distributed. This document shall contain standard operating procedures for all of the following operations:

(g)(3)(i) Checking audit samples to confirm their true value as reported by the AASP;

(g)(3)(ii) Performing technical systems audits of the AASP's facilities and operating procedures at least once every two years;

(g)(3)(iii) Providing standards for use by the voluntary consensus standard body to approve the accrediting body that will accredit the audit sample providers.

(g)(4) The technical criteria documents for the accredited sample providers and the accrediting body shall be developed through a public process guided by a voluntary consensus standards body (VCSB). The VCSB shall operate in accordance with the procedures and requirements in the Office of Management and Budget Circular A-119. A copy of Circular A-119 is available upon request by writing the Office of Information and Regulatory Affairs, Office of Management and Budget, 725 17th Street, NW., Washington, DC 20503, by calling (202) 395-6880 or downloading online at [http://standards.gov/standards\\_gov/a119.cfm](http://standards.gov/standards_gov/a119.cfm). The VCSB shall approve all accrediting bodies. The Administrator will review all technical criteria documents. If the technical criteria documents do not meet the minimum technical requirements in paragraphs (g)(2) through (4) of this section, the technical criteria documents are not acceptable and the proposed audit sample program is not capable of producing audit samples of sufficient quality to be used in a compliance test. All acceptable technical criteria documents shall be posted on the EPA Web site at the following URL, <http://www.epa.gov/ttn/emc>.

*The Smith Pond Generator engine is not subject to source testing requirements under 40 CFR 60 Subpart III since the engine is certified and has a displacement of 1.1 liters/cylinder which is less than 30 liters/cylinder.*

#### **40 CFR §60.9 Availability Of Information.**

The availability to the public of information provided to, or otherwise obtained by, the Administrator under this part shall be governed by part 2 of this chapter. (Information submitted voluntarily to the Administrator for the purposes of §§60.5 and 60.6 is governed by §§2.201 through 2.213 of this chapter and not by §2.301 of this chapter.)

*The Smith Pond Generator will be a stationary source with a new compression ignition engine model year 2011 with a rating of 156.9 BHP and displacement of 1.1 liters per cylinder and is subject to 40 CFR 60 Subpart III, therefore underlined requirements of the general provisions in Subpart A apply to this emission unit.*

#### **40 CFR §60.10 State Authority.**

The provisions of this part shall not be construed in any manner to preclude any State or

political subdivision thereof from:

(a) Adopting and enforcing any emission standard or limitation applicable to an affected facility, provided that such emission standard or limitation is not less stringent than the standard applicable to such facility.

(b) Requiring the owner or operator of an affected facility to obtain permits, licenses, or approvals prior to initiating construction, modification, or operation of such facility.

*The Smith Pond Generator will be a stationary source with a new compression ignition engine model year 2011 with a rating of 156.9 BHP and displacement of 1.1 liters per cylinder and is subject to 40 CFR 60 Subpart IIII, therefore underlined requirements of the general provisions in Subpart A apply to this emission unit.*

**40 CFR §60.11 Compliance With Standards And Maintenance Requirements.**

(a) Compliance with standards in this part, other than opacity standards, shall be determined in accordance with performance tests established by §60.8, unless otherwise specified in the applicable standard.

(b) Compliance with opacity standards in this part shall be determined by conducting observations in accordance with Method 9 in appendix A of this part, any alternative method that is approved by the Administrator, or as provided in paragraph (e)(5) of this section. For purposes of determining initial compliance, the minimum total time of observations shall be 3 hours (30 6-minute averages) for the performance test or other set of observations (meaning those fugitive-type emission sources subject only to an opacity standard).

(c) The opacity standards set forth in this part shall apply at all times except during periods of startup, shutdown, malfunction, and as otherwise provided in the applicable standard.

(d) At all times, including periods of startup, shutdown, and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating 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, opacity observations, review of operating and maintenance procedures, and inspection of the source.

(e)(1) For the purpose of demonstrating initial compliance, opacity observations shall be conducted concurrently with the initial performance test required in §60.8 unless one of the following conditions apply. If no performance test under §60.8 is required, then opacity observations shall be conducted within 60 days after achieving the maximum production rate at which the affected facility will be operated but no later than 180 days after initial startup of the facility. If visibility or other conditions prevent the opacity observations from being conducted concurrently with the initial performance test required under §60.8 the source owner or operator shall reschedule the opacity observations as soon after the initial

performance test as possible, but not later than 30 days thereafter, and shall advise the Administrator of the rescheduled date. In these cases, the 30-day prior notification to the Administrator required in §60.7(a)(6) shall be waived. The rescheduled opacity observations shall be conducted (to the extent possible) under the same operating conditions that existed during the initial performance test conducted under §60.8. The visible emissions observer shall determine whether visibility or other conditions prevent the opacity observations from being made concurrently with the initial performance test in accordance with procedures contained in Method 9 of appendix B of this part. Opacity readings of portions of plumes which contain condensed, uncombined water vapor shall not be used for purposes of determining compliance with opacity standards. The owner or operator of an affected facility shall make available, upon request by the Administrator, such records as may be necessary to determine the conditions under which the visual observations were made and shall provide evidence indicating proof of current visible observer emission certification. Except as provided in paragraph (e)(5) of this section, the results of continuous monitoring by transmissometer which indicate that the opacity at the time visual observations were made was not in excess of the standard are probative but not conclusive evidence of the actual opacity of an emission, provided that the source shall meet the burden of proving that the instrument used meets (at the time of the alleged violation) Performance Specification 1 in appendix B of this part, has been properly maintained and (at the time of the alleged violation) that the resulting data have not been altered in any way.

(e)(2) Except as provided in paragraph (e)(3) of this section, the owner or operator of an affected facility to which an opacity standard in this part applies shall conduct opacity observations in accordance with paragraph (b) of this section, shall record the opacity of emissions, and shall report to the Administrator the opacity results along with the results of the initial performance test required under §60.8. The inability of an owner or operator to secure a visible emissions observer shall not be considered a reason for not conducting the opacity observations concurrent with the initial performance test.

(e)(3) The owner or operator of an affected facility to which an opacity standard in this part applies may request the Administrator to determine and to record the opacity of emissions from the affected facility during the initial performance test and at such times as may be required. The owner or operator of the affected facility shall report the opacity results. Any request to the Administrator to determine and to record the opacity of emissions from an affected facility shall be included in the notification required in §60.7(a)(6). If, for some reason, the Administrator cannot determine and record the opacity of emissions from the affected facility during the performance test, then the provisions of paragraph (e)(1) of this section shall apply.

(e)(4) An owner or operator of an affected facility using a continuous opacity monitor (transmissometer) shall record the monitoring data produced during the initial performance test required by §60.8 and shall furnish the Administrator a written report of the monitoring results along with Method 9 of appendix B and §60.8 performance test results.

(e)(5) An owner or operator of an affected facility subject to an opacity standard may submit, for compliance purposes, continuous opacity monitoring system (COMS) data results produced during any performance test required under §60.8 in lieu of Method 9 observation data. If an owner or operator elects to submit COMS data for compliance with

the opacity standard, he shall notify the Administrator of that decision, in writing, at least 30 days before any performance test required under §60.8 is conducted. Once the owner or operator of an affected facility has notified the Administrator to that effect, the COMS data results will be used to determine opacity compliance during subsequent tests required under §60.8 until the owner or operator notifies the Administrator, in writing, to the contrary. For the purpose of determining compliance with the opacity standard during a performance test required under §60.8 using COMS data, the minimum total time of COMS data collection shall be averages of all 6-minute continuous periods within the duration of the mass emission performance test. Results of the COMS opacity determinations shall be submitted along with the results of the performance test required under §60.8. The owner or operator of an affected facility using a COMS for compliance purposes is responsible for demonstrating that the COMS meets the requirements specified in §60.13(c) of this part, that the COMS has been properly maintained and operated, and that the resulting data have not been altered in any way. If COMS data results are submitted for compliance with the opacity standard for a period of time during which Method 9 data indicates noncompliance, the Method 9 data will be used to determine compliance with the opacity standard.

(e)(6) Upon receipt from an owner or operator of the written reports of the results of the performance tests required by §60.8 the opacity observation results and observer certification required by §60.11(e)(1), and the COMS results, if applicable, the Administrator will make a finding concerning compliance with opacity and other applicable standards. If COMS data results are used to comply with an opacity standard, only those results are required to be submitted along with the performance test results required by §60.8. If the Administrator finds that an affected facility is in compliance with all applicable standards for which performance tests are conducted in accordance with §60.8 of this part but during the time such performance tests are being conducted fails to meet any applicable opacity standard, he shall notify the owner or operator and advise him that he may petition the Administrator within 10 days of receipt of notification to make appropriate adjustment to the opacity standard for the affected facility.

(e)(7) The Administrator will grant such a petition upon a demonstration by the owner or operator that the affected facility and associated air pollution control equipment was operated and maintained in a manner to minimize the opacity of emissions during the performance tests; that the performance tests were performed under the conditions established by the Administrator; and that the affected facility and associated air pollution control equipment were incapable of being adjusted or operated to meet the applicable opacity standard.

(e)(8) The Administrator will establish an opacity standard for the affected facility meeting the above requirements at a level at which the source will be able, as indicated by the performance and opacity tests, to meet the opacity standard at all times during which the source is meeting the mass or concentration emission standard. The Administrator will promulgate the new opacity standard in the FEDERAL REGISTER.

(f) Special provisions set forth under an applicable subpart shall supersede any conflicting provisions in paragraphs (a) through (e) of this section.

(g) For the purpose of submitting compliance certifications or establishing whether or not a person has violated or is in violation of any standard in this part, nothing in this part shall

preclude the use, including the exclusive use, of any credible evidence or information, relevant to whether a source would have been in compliance with applicable requirements if the appropriate performance or compliance test or procedure had been performed.

***The provisions of 40 CFR 60.11 are not applicable to the Smith Pond Generator engine since the requirements in 40 CFR 60 Subpart IIII override this subsection of the General Requirements as stated in 40 CFR 60 Table 8 To Subpart IIII. Applicable requirements in 40 CFR 60 Subpart IIII are addressed later in this form.***

#### **40 CFR §60.12 Circumvention.**

No owner or operator subject to the provisions of this part shall build, erect, install, or use any article, machine, equipment or process, the use of which conceals an emission which would otherwise constitute a violation of an applicable standard. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance with an opacity standard or with a standard which is based on the concentration of a pollutant in the gases discharged to the atmosphere.

***The Smith Pond Generator will be a stationary source with a new compression ignition engine model year 2011 with a rating of 156.9 BHP and displacement of 1.1 liters per cylinder and is subject to 40 CFR 60 Subpart IIII, therefore underlined requirements of the general provisions in Subpart A apply to this emission unit.***

#### **40 CFR §60.13 Monitoring Requirements.**

(a) For the purposes of this section, all continuous monitoring systems required under applicable subparts shall be subject to the provisions of this section upon promulgation of performance specifications for continuous monitoring systems under appendix B to this part and, if the continuous monitoring system is used to demonstrate compliance with emission limits on a continuous basis, appendix F to this part, unless otherwise specified in an applicable subpart or by the Administrator. Appendix F is applicable December 4, 1987.

(b) All continuous monitoring systems and monitoring devices shall be installed and operational prior to conducting performance tests under §60.8. Verification of operational status shall, as a minimum, include completion of the manufacturer's written requirements or recommendations for installation, operation, and calibration of the device.

(c) If the owner or operator of an affected facility elects to submit continuous opacity monitoring system (COMS) data for compliance with the opacity standard as provided under §60.11(e)(5), he shall conduct a performance evaluation of the COMS as specified in Performance Specification 1, appendix B, of this part before the performance test required under §60.8 is conducted. Otherwise, the owner or operator of an affected facility shall conduct a performance evaluation of the COMS or continuous emission monitoring system (CEMS) during any performance test required under §60.8 or within 30 days thereafter in accordance with the applicable performance specification in appendix B of this part. The owner or operator of an affected facility shall conduct COMS or CEMS performance evaluations at such other times as may be required by the Administrator under section 114

of the Act.

(c)(1) The owner or operator of an affected facility using a COMS to determine opacity compliance during any performance test required under §60.8 and as described in §60.11(e)(5) shall furnish the Administrator two or, upon request, more copies of a written report of the results of the COMS performance evaluation described in paragraph (c) of this section at least 10 days before the performance test required under §60.8 is conducted.

(c)(2) Except as provided in paragraph (c)(1) of this section, the owner or operator of an affected facility shall furnish the Administrator within 60 days of completion two or, upon request, more copies of a written report of the results of the performance evaluation.

(d)(1) Owners and operators of a CEMS installed in accordance with the provisions of this part, must check the zero (or low level value between 0 and 20 percent of span value) and span (50 to 100 percent of span value) calibration drifts at least once daily in accordance with a written procedure. The zero and span must, as a minimum, be adjusted whenever either the 24-hour zero drift or the 24-hour span drift exceeds two times the limit of the applicable performance specification in appendix B of this part. The system must allow the amount of the excess zero and span drift to be recorded and quantified whenever specified. Owners and operators of a COMS installed in accordance with the provisions of this part, must automatically, intrinsic to the opacity monitor, check the zero and upscale (span) calibration drifts at least once daily. For a particular COMS, the acceptable range of zero and upscale calibration materials is as defined in the applicable version of PS-1 in appendix B of this part. For a COMS, the optical surfaces, exposed to the effluent gases, must be cleaned before performing the zero and upscale drift adjustments, except for systems using automatic zero adjustments. The optical surfaces must be cleaned when the cumulative automatic zero compensation exceeds 4 percent opacity.

(d)(2) Unless otherwise approved by the Administrator, the following procedures must be followed for a COMS. Minimum procedures must include an automated method for producing a simulated zero opacity condition and an upscale opacity condition using a certified neutral density filter or other related technique to produce a known obstruction of the light beam. Such procedures must provide a system check of all active analyzer internal optics with power or curvature, all active electronic circuitry including the light source and photodetector assembly, and electronic or electro-mechanical systems and hardware and or software used during normal measurement operation.

(e) Except for system breakdowns, repairs, calibration checks, and zero and span adjustments required under paragraph (d) of this section, all continuous monitoring systems shall be in continuous operation and shall meet minimum frequency of operation requirements as follows:

(e)(1) All continuous monitoring systems referenced by paragraph (c) of this section for measuring opacity of emissions shall complete a minimum of one cycle of sampling and analyzing for each successive 10-second period and one cycle of data recording for each successive 6-minute period.

(e)(2) All continuous monitoring systems referenced by paragraph (c) of this section for measuring emissions, except opacity, shall complete a minimum of one cycle of operation

(sampling, analyzing, and data recording) for each successive 15-minute period.

(f) All continuous monitoring systems or monitoring devices shall be installed such that representative measurements of emissions or process parameters from the affected facility are obtained. Additional procedures for location of continuous monitoring systems contained in the applicable Performance Specifications of appendix B of this part shall be used.

(g) When the effluents from a single affected facility or two or more affected facilities subject to the same emission standards are combined before being released to the atmosphere, the owner or operator may install applicable continuous monitoring systems on each effluent or on the combined effluent. When the affected facilities are not subject to the same emission standards, separate continuous monitoring systems shall be installed on each effluent. When the effluent from one affected facility is released to the atmosphere through more than one point, the owner or operator shall install an applicable continuous monitoring system on each separate effluent unless the installation of fewer systems is approved by the Administrator. When more than one continuous monitoring system is used to measure the emissions from one affected facility (e.g., multiple breechings, multiple outlets), the owner or operator shall report the results as required from each continuous monitoring system.

(h)(1) Owners or operators of all continuous monitoring systems for measurement of opacity shall reduce all data to 6-minute averages and for continuous monitoring systems other than opacity to 1-hour averages for time periods as defined in §60.2. Six-minute opacity averages shall be calculated from 36 or more data points equally spaced over each 6-minute period.

(h)(2) For continuous monitoring systems other than opacity, 1-hour averages shall be computed as follows, except that the provisions pertaining to the validation of partial operating hours are only applicable for affected facilities that are required by the applicable subpart to include partial hours in the emission calculations:

(h)(2)(i) Except as provided under paragraph (h)(2)(iii) of this section, for a full operating hour (any clock hour with 60 minutes of unit operation), at least four valid data points are required to calculate the hourly average, i.e., one data point in each of the 15-minute quadrants of the hour.

(h)(2)(ii) Except as provided under paragraph (h)(2)(iii) of this section, for a partial operating hour (any clock hour with less than 60 minutes of unit operation), at least one valid data point in each 15-minute quadrant of the hour in which the unit operates is required to calculate the hourly average.

(h)(2)(iii) For any operating hour in which required maintenance or quality-assurance activities are performed:

(h)(2)(iii)(A) If the unit operates in two or more quadrants of the hour, a minimum of two valid data points, separated by at least 15 minutes, is required to calculate the hourly average; or

- (h)(2)(iii)(B) If the unit operates in only one quadrant of the hour, at least one valid data point is required to calculate the hourly average.
- (h)(2)(iv) If a daily calibration error check is failed during any operating hour, all data for that hour shall be invalidated, unless a subsequent calibration error test is passed in the same hour and the requirements of paragraph (h)(2)(iii) of this section are met, based solely on valid data recorded after the successful calibration.
- (h)(2)(v) For each full or partial operating hour, all valid data points shall be used to calculate the hourly average.
- (h)(2)(vi) Except as provided under paragraph (h)(2)(vii) of this section, data recorded during periods of continuous monitoring system breakdown, repair, calibration checks, and zero and span adjustments shall not be included in the data averages computed under this paragraph.
- (h)(2)(vii) Owners and operators complying with the requirements of §60.7(f)(1) or (2) must include any data recorded during periods of monitor breakdown or malfunction in the data averages.
- (h)(2)(viii) When specified in an applicable subpart, hourly averages for certain partial operating hours shall not be computed or included in the emission averages (e.g. hours with < 30 minutes of unit operation under §60.47b(d)).
- (h)(2)(ix) Either arithmetic or integrated averaging of all data may be used to calculate the hourly averages. The data may be recorded in reduced or nonreduced form (e.g., ppm pollutant and percent O<sub>2</sub> or ng/J of pollutant).
- (h)(3) All excess emissions shall be converted into units of the standard using the applicable conversion procedures specified in the applicable subpart. After conversion into units of the standard, the data may be rounded to the same number of significant digits used in the applicable subpart to specify the emission limit.
- (i) After receipt and consideration of written application, the Administrator may approve alternatives to any monitoring procedures or requirements of this part including, but not limited to the following:
- (i)(1) Alternative monitoring requirements when installation of a continuous monitoring system or monitoring device specified by this part would not provide accurate measurements due to liquid water or other interferences caused by substances in the effluent gases.
- (i)(2) Alternative monitoring requirements when the affected facility is infrequently operated.
- (i)(3) Alternative monitoring requirements to accommodate continuous monitoring systems that require additional measurements to correct for stack moisture conditions.

(i)(4) Alternative locations for installing continuous monitoring systems or monitoring devices when the owner or operator can demonstrate that installation at alternate locations will enable accurate and representative measurements.

(i)(5) Alternative methods of converting pollutant concentration measurements to units of the standards.

(i)(6) Alternative procedures for performing daily checks of zero and span drift that do not involve use of span gases or test cells.

(i)(7) Alternatives to the A.S.T.M. test methods or sampling procedures specified by any subpart.

(i)(8) Alternative continuous monitoring systems that do not meet the design or performance requirements in Performance Specification 1, appendix B, but adequately demonstrate a definite and consistent relationship between its measurements and the measurements of opacity by a system complying with the requirements in Performance Specification 1. The Administrator may require that such demonstration be performed for each affected facility.

(i)(9) Alternative monitoring requirements when the effluent from a single affected facility or the combined effluent from two or more affected facilities is released to the atmosphere through more than one point.

(j) An alternative to the relative accuracy (RA) test specified in Performance Specification 2 of appendix B may be requested as follows:

(j)(1) An alternative to the reference method tests for determining RA is available for sources with emission rates demonstrated to be less than 50 percent of the applicable standard. A source owner or operator may petition the Administrator to waive the RA test in Section 8.4 of Performance Specification 2 and substitute the procedures in Section 16.0 if the results of a performance test conducted according to the requirements in §60.8 of this subpart or other tests performed following the criteria in §60.8 demonstrate that the emission rate of the pollutant of interest in the units of the applicable standard is less than 50 percent of the applicable standard. For sources subject to standards expressed as control efficiency levels, a source owner or operator may petition the Administrator to waive the RA test and substitute the procedures in Section 16.0 of Performance Specification 2 if the control device exhaust emission rate is less than 50 percent of the level needed to meet the control efficiency requirement. The alternative procedures do not apply if the continuous emission monitoring system is used to determine compliance continuously with the applicable standard. The petition to waive the RA test shall include a detailed description of the procedures to be applied. Included shall be location and procedure for conducting the alternative, the concentration or response levels of the alternative RA materials, and the other equipment checks included in the alternative procedure. The Administrator will review the petition for completeness and applicability. The determination to grant a waiver will depend on the intended use of the CEMS data (e.g., data collection purposes other than NSPS) and may require specifications more stringent than in Performance Specification 2 (e.g., the applicable emission limit is more stringent than NSPS).

(j)(2) The waiver of a CEMS RA test will be reviewed and may be rescinded at such time, following successful completion of the alternative RA procedure, that the CEMS data indicate that the source emissions are approaching the level. The criterion for reviewing the waiver is the collection of CEMS data showing that emissions have exceeded 70 percent of the applicable standard for seven, consecutive, averaging periods as specified by the applicable regulation(s). For sources subject to standards expressed as control efficiency levels, the criterion for reviewing the waiver is the collection of CEMS data showing that exhaust emissions have exceeded 70 percent of the level needed to meet the control efficiency requirement for seven, consecutive, averaging periods as specified by the applicable regulation(s) [e.g., §60.45(g)(2) and (3), §60.73(e), and §60.84(e)]. It is the responsibility of the source operator to maintain records and determine the level of emissions relative to the criterion on the waiver of RA testing. If this criterion is exceeded, the owner or operator must notify the Administrator within 10 days of such occurrence and include a description of the nature and cause of the increasing emissions. The Administrator will review the notification and may rescind the waiver and require the owner or operator to conduct a RA test of the CEMS as specified in Section 8.4 of Performance Specification 2.

*The Smith Pond Generator is not subject to continuous monitoring requirements under 40 CFR 60 Subpart III since engine displacement is <30 liters/cylinder. Therefore, no provisions in 40 CFR 60.13 apply.*

#### **40 CFR §60.14 Modification.**

(a) Except as provided under paragraphs (e) and (f) of this section, any physical or operational change to an existing facility which results in an increase in the emission rate to the atmosphere of any pollutant to which a standard applies shall be considered a modification within the meaning of section 111 of the Act. Upon modification, an existing facility shall become an affected facility for each pollutant to which a standard applies and for which there is an increase in the emission rate to the atmosphere.

(b) Emission rate shall be expressed as kg/hr of any pollutant discharged into the atmosphere for which a standard is applicable. The Administrator shall use the following to determine emission rate:

(b)(1) Emission factors as specified in the latest issue of "Compilation of Air Pollutant Emission Factors," EPA Publication No. AP-42, or other emission factors determined by the Administrator to be superior to AP-42 emission factors, in cases where utilization of emission factors demonstrates that the emission level resulting from the physical or operational change will either clearly increase or clearly not increase.

(b)(2) Material balances, continuous monitor data, or manual emission tests in cases where utilization of emission factors as referenced in paragraph (b)(1) of this section does not demonstrate to the Administrator's satisfaction whether the emission level resulting from the physical or operational change will either clearly increase or clearly not increase, or where an owner or operator demonstrates to the Administrator's satisfaction that there are reasonable grounds to dispute the result obtained by the Administrator utilizing emission factors as referenced in paragraph (b)(1) of this section. When the emission rate is based on

results from manual emission tests or continuous monitoring systems, the procedures specified in appendix C of this part shall be used to determine whether an increase in emission rate has occurred. Tests shall be conducted under such conditions as the Administrator shall specify to the owner or operator based on representative performance of the facility. At least three valid test runs must be conducted before and at least three after the physical or operational change. All operating parameters which may affect emissions must be held constant to the maximum feasible degree for all test runs.

(c) The addition of an affected facility to a stationary source as an expansion to that source or as a replacement for an existing facility shall not by itself bring within the applicability of this part any other facility within that source.

(d) [Reserved]

(e) The following shall not, by themselves, be considered modifications under this part:

(e)(1) Maintenance, repair, and replacement which the Administrator determines to be routine for a source category, subject to the provisions of paragraph (c) of this section and §60.15.

(e)(2) An increase in production rate of an existing facility, if that increase can be accomplished without a capital expenditure on that facility.

(e)(3) An increase in the hours of operation.

(e)(4) Use of an alternative fuel or raw material if, prior to the date any standard under this part becomes applicable to that source type, as provided by §60.1, the existing facility was designed to accommodate that alternative use. A facility shall be considered to be designed to accommodate an alternative fuel or raw material if that use could be accomplished under the facility's construction specifications as amended prior to the change. Conversion to coal required for energy considerations, as specified in section 111(a)(8) of the Act, shall not be considered a modification.

(e)(5) The addition or use of any system or device whose primary function is the reduction of air pollutants, except when an emission control system is removed or is replaced by a system which the Administrator determines to be less environmentally beneficial.

(e)(6) The relocation or change in ownership of an existing facility.

(f) Special provisions set forth under an applicable subpart of this part shall supersede any conflicting provisions of this section.

(g) Within 180 days of the completion of any physical or operational change subject to the control measures specified in paragraph (a) of this section, compliance with all applicable standards must be achieved.

(h) No physical change, or change in the method of operation, at an existing electric utility steam generating unit shall be treated as a modification for the purposes of this section

provided that such change does not increase the maximum hourly emissions of any pollutant regulated under this section above the maximum hourly emissions achievable at that unit during the 5 years prior to the change.

(i) Repowering projects that are awarded funding from the Department of Energy as permanent clean coal technology demonstration projects (or similar projects funded by EPA) are exempt from the requirements of this section provided that such change does not increase the maximum hourly emissions of any pollutant regulated under this section above the maximum hourly emissions achievable at that unit during the five years prior to the change.

(j)(1) Repowering projects that qualify for an extension under section 409(b) of the Clean Air Act are exempt from the requirements of this section, provided that such change does not increase the actual hourly emissions of any pollutant regulated under this section above the actual hourly emissions achievable at that unit during the 5 years prior to the change.

(j)(2) This exemption shall not apply to any new unit that:

(j)(2)(i) Is designated as a replacement for an existing unit;

(j)(2)(ii) Qualifies under section 409(b) of the Clean Air Act for an extension of an emission limitation compliance date under section 405 of the Clean Air Act; and

(j)(2)(iii) Is located at a different site than the existing unit.

(k) The installation, operation, cessation, or removal of a temporary clean coal technology demonstration project is exempt from the requirements of this section. A temporary clean coal control technology demonstration project, for the purposes of this section is a clean coal technology demonstration project that is operated for a period of 5 years or less, and which complies with the State implementation plan for the State in which the project is located and other requirements necessary to attain and maintain the national ambient air quality standards during the project and after it is terminated.

(k)(1) The reactivation of a very clean coal-fired electric utility steam generating unit is exempt from the requirements of this section.

*The Smith Pond Generator will be a stationary source with a new compression ignition engine model year 2011 with a rating of 156.9 BHP and displacement of 1.1 liters per cylinder and is subject to 40 CFR 60 Subpart IIII, therefore underlined requirements of the general provisions in Subpart A apply to this emission unit.*

#### **40 CFR §60.15 Reconstruction.**

(a) An existing facility, upon reconstruction, becomes an affected facility, irrespective of any change in emission rate.

(b) "Reconstruction" means the replacement of components of an existing facility to such an extent that:

(b)(1) The fixed capital cost of the new components exceeds 50 percent of the fixed capital cost that would be required to construct a comparable entirely new facility, and

(b)(2) It is technologically and economically feasible to meet the applicable standards set forth in this part.

(c) "Fixed capital cost" means the capital needed to provide all the depreciable components.

(d) If an owner or operator of an existing facility proposes to replace components, and the fixed capital cost of the new components exceeds 50 percent of the fixed capital cost that would be required to construct a comparable entirely new facility, he shall notify the Administrator of the proposed replacements. The notice must be postmarked 60 days (or as soon as practicable) before construction of the replacements is commenced and must include the following information:

(d)(1) Name and address of the owner or operator.

(d)(2) The location of the existing facility.

(d)(3) A brief description of the existing facility and the components which are to be replaced.

(d)(4) A description of the existing air pollution control equipment and the proposed air pollution control equipment.

(d)(5) An estimate of the fixed capital cost of the replacements and of constructing a comparable entirely new facility.

(d)(6) The estimated life of the existing facility after the replacements.

(d)(7) A discussion of any economic or technical limitations the facility may have in complying with the applicable standards of performance after the proposed replacements.

(e) The Administrator will determine, within 30 days of the receipt of the notice required by paragraph (d) of this section and any additional information he may reasonably require, whether the proposed replacement constitutes reconstruction.

(f) The Administrator's determination under paragraph (e) shall be based on:

(f)(1) The fixed capital cost of the replacements in comparison to the fixed capital cost that would be required to construct a comparable entirely new facility;

(f)(2) The estimated life of the facility after the replacements compared to the life of a comparable entirely new facility;

(f)(3) The extent to which the components being replaced cause or contribute to the

emissions from the facility; and

(f)(4) Any economic or technical limitations on compliance with applicable standards of performance which are inherent in the proposed replacements.

(g) Individual subparts of this part may include specific provisions which refine and delimit the concept of reconstruction set forth in this section.

*The Smith Pond Generator will be a stationary source with a new compression ignition engine model year 2011 with a rating of 156.9 BHP and displacement of 1.1 liters per cylinder and is subject to 40 CFR 60 Subpart IIII, therefore underlined requirements of the general provisions in Subpart A apply to this emission unit.*

**40 CFR §60.16 Priority List.**

**PRIORITIZED MAJOR SOURCE CATEGORIES**

Priority Number	Source Category
1.	Synthetic Organic Chemical Manufacturing Industry (SOCMI) and   Volatile Organic Liquid Storage Vessels and Handling Equipment  (a) SOCMI unit processes  (b) Volatile organic liquid (VOL) storage vessels and handling   equipment  (c) SOCMI fugitive sources  (d) SOCMI secondary sources
2.	Industrial Surface Coating: Cans
3.	Petroleum Refineries: Fugitive Sources
4.	Industrial Surface Coating: Paper
5.	Dry Cleaning  (a) Perchloroethylene  (b) Petroleum solvent
6.	Graphic Arts
7.	Polymers and Resins: Acrylic Resins
8.	Mineral Wool (Deleted)
9.	<u> Stationary Internal Combustion Engines</u>
10.	Industrial Surface Coating: Fabric
11.	Industrial-Commercial-Institutional Steam Generating Units.
12.	Incineration: Non-Municipal (Deleted)
13.	Non-Metallic Mineral Processing
14.	Metallic Mineral Processing
15.	Secondary Copper (Deleted)
16.	Phosphate Rock Preparation
17.	Foundries: Steel and Gray Iron
18.	Polymers and Resins: Polyethylene

19. |Charcoal Production
20. |Synthetic Rubber
  - |(a) Tire manufacture
  - |(b) SBR production
21. |Vegetable Oil
22. |Industrial Surface Coating: Metal Coil
23. |Petroleum Transportation and Marketing
24. |By-Product Coke Ovens
25. |Synthetic Fibers
26. |Plywood Manufacture
27. |Industrial Surface Coating: Automobiles
28. |Industrial Surface Coating: Large Appliances
29. |Crude Oil and Natural Gas Production
30. |Secondary Aluminum
31. |Potash (Deleted)
32. |Lightweight Aggregate Industry: Clay, Shale, and Slate<sup>2</sup>
33. |Glass
34. |Gypsum
35. |Sodium Carbonate
36. |Secondary Zinc (Deleted)
37. |Polymers and Resins: Phenolic
38. |Polymers and Resins: Urea-Melamine
39. |Ammonia (Deleted)
40. |Polymers and Resins: Polystyrene
41. |Polymers and Resins: ABS-SAN Resins
42. |Fiberglass
43. |Polymers and Resins: Polypropylene
44. |Textile Processing
45. |Asphalt Processing and Asphalt Roofing Manufacture
46. |Brick and Related Clay Products
47. |Ceramic Clay Manufacturing (Deleted)
48. |Ammonium Nitrate Fertilizer
49. |Castable Refractories (Deleted)
50. |Borax and Boric Acid (Deleted)
51. |Polymers and Resins: Polyester Resins
52. |Ammonium Sulfate
53. |Starch
54. |Perlite
55. |Phosphoric Acid: Thermal Process (Deleted)
56. |Uranium Refining
57. |Animal Feed Defluorination (Deleted)
58. |Urea (for fertilizer and polymers)
59. |Detergent (Deleted)

Other Source Categories

Lead acid battery manufacture<sup>3</sup>  
 Organic solvent cleaning<sup>3</sup>  
 Industrial surface coating: metal furniture<sup>3</sup>  
 Stationary gas turbines<sup>4</sup>  
 Municipal solid waste landfills.<sup>4</sup>

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1 Low numbers have highest priority, e.g., No. 1 is high priority, No. 59 is low priority.

2 Formerly titled "Sintering: Clay and Fly Ash".

3 Minor source category, but included on list since an NSPS is being developed for that source category.

4 Not prioritized, since an NSPS for this major source category has already been promulgated.

*The Smith Pond Generator will be a stationary source with a new compression ignition engine model year 2011 with a rating of 156.9 BHP and displacement of 1.1 liters per cylinder and is subject to 40 CFR 60 Subpart IIII, therefore underlined requirements of the general provisions in Subpart A apply to this emission unit.*

**40 CFR §60.17 Incorporation By Reference.**

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EDITORIAL NOTE: Changes have been made to this section according to a final rule published in the Federal Register. The original version of the changed text is followed by effective date information and the revised version, both of which are presented in red.

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The materials listed below are incorporated by reference in the corresponding sections noted. These incorporations by reference were approved by the Director of the Federal Register on the date listed. These materials are incorporated as they exist on the date of the approval, and a notice of any change in these materials will be published in the Federal Register. The materials are available for purchase at the corresponding address noted below, and all are available for inspection at the Office of the Federal Register, Room 8401, 1100 L Street, NW., Washington, DC and at the Library (C267-01), U.S. EPA, Research Triangle Park, NC.

(a) The following materials are available for purchase from at least one of the following addresses: American Society for Testing and Materials (ASTM), 100 Barr Harbor Drive, Post Office Box C700, West Conshohocken, PA 19428-2959, Telephone (610) 832-9585, and are also available at the following Web site: <http://www.astm.org>; or ProQuest, 789 East Eisenhower Parkway, Ann Arbor, MI 48106-1346, Telephone (734) 761-4700, and are also available at the following Web site: <http://www.proquest.com>.

- (a)(1) ASTM A99-76, 82 (Reapproved 1987), Standard Specification for Ferromanganese, incorporation by reference (IBR) approved for §60.261.
- (a)(2) ASTM A100-69, 74, 93, Standard Specification for Ferrosilicon, IBR approved for §60.261.
- (a)(3) ASTM A101-73, 93, Standard Specification for Ferrochromium, IBR approved for §60.261.
- (a)(4) ASTM A482-76, 93, Standard Specification for Ferrochromesilicon, IBR approved for §60.261.
- (a)(5) ASTM A483-64, 74 (Reapproved 1988), Standard Specification for Silicomanganese, IBR approved for §60.261.
- (a)(6) ASTM A495-76, 94, Standard Specification for Calcium-Silicon and Calcium Manganese-Silicon, IBR approved for §60.261.
- (a)(7) ASTM D86-96, Standard Test Method for Distillation of Petroleum Products (Approved April 10, 1996), IBR approved for §§60.562-2(d), 60.593(d), 60.593a(d), 60.633(h) and 60.5401(f).
- (a)(8) ASTM D129-64, 78, 95, 00, Standard Test Method for Sulfur in Petroleum Products (General Bomb Method), IBR approved for §§60.106(j)(2), 60.335(b)(10)(i), and Appendix A: Method 19, 12.5.2.2.3.
- (a)(9) ASTM D129-00 (Reapproved 2005), Standard Test Method for Sulfur in Petroleum Products (General Bomb Method), IBR approved for §60.4415(a)(1)(i).
- (a)(10) ASTM D240-76, 92, Standard Test Method for Heat of Combustion of Liquid Hydrocarbon Fuels by Bomb Calorimeter, IBR approved for §§60.46(c), 60.296(b), and Appendix A: Method 19, Section 12.5.2.2.3.
- (a)(11) ASTM D270-65, 75, Standard Method of Sampling Petroleum and Petroleum Products, IBR approved for Appendix A: Method 19, Section 12.5.2.2.1.
- (a)(12) ASTM D323-82, 94, Test Method for Vapor Pressure of Petroleum Products (Reid Method), IBR approved for §§60.111(l), 60.111a(g), 60.111b(g), and 60.116b(f)(2)(ii).
- (a)(13) ASTM D388-77, 90, 91, 95, 98a, 99 (Reapproved 2004)ε1, Standard Specification for Classification of Coals by Rank, IBR approved for §§60.24(h)(8), 60.41 of subpart D of this part, 60.45(f)(4)(i), 60.45(f)(4)(ii), 60.45(f)(4)(vi), 60.41Da of subpart Da of this part, 60.41b of subpart Db of this part, 60.41c of subpart Dc of this part, 60.251 of subpart Y of this part, and 60.4102.
- (a)(14) ASTM D396-78, 89, 90, 92, 96, 98, Standard Specification for Fuel Oils, IBR approved for §§60.41b of subpart Db of this part, 60.41c of subpart Dc of this part, 60.111(b) of subpart K of this part, and 60.111a(b) of subpart Ka of this part.

- (a)(15) ASTM D975-78, 96, 98a, Standard Specification for Diesel Fuel Oils, IBR approved for §§60.111(b) of subpart K of this part and 60.111a(b) of subpart Ka of this part.
- (a)(16) ASTM D975-08a, Standard Specification for Diesel Fuel Oils, IBR approved for §§60.41b of subpart Db of this part and 60.41c of subpart Dc of this part.
- (a)(17) ASTM D1072-80, 90 (Reapproved 1994), Standard Test Method for Total Sulfur in Fuel Gases, IBR approved for §60.335(b)(10)(ii).
- (a)(18) ASTM D1072-90 (Reapproved 1999), Standard Test Method for Total Sulfur in Fuel Gases, IBR approved for §60.4415(a)(1)(ii).
- (a)(19) ASTM D1137-53, 75, Standard Method for Analysis of Natural Gases and Related Types of Gaseous Mixtures by the Mass Spectrometer, IBR approved for §60.45(f)(5)(i).
- (a)(20) ASTM D1193-77, 91, Standard Specification for Reagent Water, IBR approved for Appendix A: Method 5, Section 7.1.3; Method 5E, Section 7.2.1; Method 5F, Section 7.2.1; Method 6, Section 7.1.1; Method 7, Section 7.1.1; Method 7C, Section 7.1.1; Method 7D, Section 7.1.1; Method 10A, Section 7.1.1; Method 11, Section 7.1.3; Method 12, Section 7.1.3; Method 13A, Section 7.1.2; Method 26, Section 7.1.2; Method 26A, Section 7.1.2; and Method 29, Section 7.2.2.
- (a)(21) ASTM D1266-87, 91, 98, Standard Test Method for Sulfur in Petroleum Products (Lamp Method), IBR approved for §§60.106(j)(2) and 60.335(b)(10)(i).
- (a)(22) ASTM D1266-98 (Reapproved 2003)e1, Standard Test Method for Sulfur in Petroleum Products (Lamp Method), IBR approved for §60.4415(a)(1)(i).
- (a)(23) ASTM D1475-60 (Reapproved 1980), 90, Standard Test Method for Density of Paint, Varnish Lacquer, and Related Products, IBR approved for §60.435(d)(1), Appendix A: Method 24, Section 6.1; and Method 24A, Sections 6.5 and 7.1.
- (a)(24) ASTM D1552-83, 95, 01, Standard Test Method for Sulfur in Petroleum Products (High-Temperature Method), IBR approved for §§60.106(j)(2), 60.335(b)(10)(i), and Appendix A: Method 19, Section 12.5.2.2.3.
- (a)(25) ASTM D1552-03, Standard Test Method for Sulfur in Petroleum Products (High-Temperature Method), IBR approved for §60.4415(a)(1)(i).
- (a)(26) ASTM D1826-77, 94, Standard Test Method for Calorific Value of Gases in Natural Gas Range by Continuous Recording Calorimeter, IBR approved for §§60.45(f)(5)(ii), 60.46(c)(2), 60.296(b)(3), and Appendix A: Method 19, Section 12.3.2.4.
- (a)(27) ASTM D1835-87, 91, 97, 03a, Standard Specification for Liquefied Petroleum (LP) Gases, IBR approved for §§60.41Da of subpart Da of this part, 60.41b of subpart Db of this part, and 60.41c of subpart Dc of this part.

(a)(28) ASTM D1945-64, 76, 91, 96, Standard Method for Analysis of Natural Gas by Gas Chromatography, IBR approved for §60.45(f)(5)(i).

(a)(29) ASTM D1946-77, 90 (Reapproved 1994), Standard Method for Analysis of Reformed Gas by Gas Chromatography, IBR approved for §§60.18(f)(3), 60.45(f)(5)(i), 60.564(f)(1), 60.614(e)(2)(ii), 60.614(e)(4), 60.664(e)(2)(ii), 60.664(e)(4), 60.704(d)(2)(ii), and 60.704(d)(4).

(a)(30) ASTM D2013-72, 86, Standard Method of Preparing Coal Samples for Analysis, IBR approved for Appendix A: Method 19, Section 12.5.2.1.3.

(a)(31) ASTM D2015-77 (Reapproved 1978), 96, Standard Test Method for Gross Calorific Value of Solid Fuel by the Adiabatic Bomb Calorimeter, IBR approved for §60.45(f)(5)(ii), 60.46(c)(2), and Appendix A: Method 19, Section 12.5.2.1.3.

(a)(32) ASTM D2016-74, 83, Standard Test Methods for Moisture Content of Wood, IBR approved for Appendix A: Method 28, Section 16.1.1.

(a)(33) ASTM D2234-76, 96, 97b, 98, Standard Methods for Collection of a Gross Sample of Coal, IBR approved for Appendix A: Method 19, Section 12.5.2.1.1.

(a)(34) ASTM D2369-81, 87, 90, 92, 93, 95, Standard Test Method for Volatile Content of Coatings, IBR approved for Appendix A: Method 24, Section 6.2.

(a)(35) ASTM D2382-76, 88, Heat of Combustion of Hydrocarbon Fuels by Bomb Calorimeter (High-Precision Method), IBR approved for §§60.18(f)(3), 60.485(g)(6), 60.485a(g)(6), 60.564(f)(3), 60.614(e)(4), 60.664(e)(4), and 60.704(d)(4).

(a)(36) ASTM D2504-67, 77, 88 (Reapproved 1993), Noncondensable Gases in C3 and Lighter Hydrocarbon Products by Gas Chromatography, IBR approved for §§60.485(g)(5) and 60.485a(g)(5).

(a)(37) ASTM D2584-68 (Reapproved 1985), 94, Standard Test Method for Ignition Loss of Cured Reinforced Resins, IBR approved for §60.685(c)(3)(i).

(a)(38) ASTM D2597-94 (Reapproved 1999), Standard Test Method for Analysis of Demethanized Hydrocarbon Liquid Mixtures Containing Nitrogen and Carbon Dioxide by Gas Chromatography, IBR approved for §60.335(b)(9)(i).

(a)(39) ASTM D2622-87, 94, 98, Standard Test Method for Sulfur in Petroleum Products by Wavelength Dispersive X-Ray Fluorescence Spectrometry, IBR approved for §§60.106(j)(2) and 60.335(b)(10)(i).

(a)(40) ASTM D2622-05, Standard Test Method for Sulfur in Petroleum Products by Wavelength Dispersive X-Ray Fluorescence Spectrometry, IBR approved for §60.4415(a)(1)(i).

- (a)(41) ASTM D2879-83, 96, 97, Test Method for Vapor Pressure-Temperature Relationship and Initial Decomposition Temperature of Liquids by Isoteniscope, IBR approved for §§60.111b(f)(3), 60.116b(e)(3)(ii), 60.116b(f)(2)(i), 60.485(e)(1), and 60.485a(e)(1).
- (a)(42) ASTM D2880-78, 96, Standard Specification for Gas Turbine Fuel Oils, IBR approved for §§60.111(b), 60.111a(b), and 60.335(d).
- (a)(43) ASTM D2908-74, 91, Standard Practice for Measuring Volatile Organic Matter in Water by Aqueous-Injection Gas Chromatography, IBR approved for §60.564(j).
- (a)(44) ASTM D2986-71, 78, 95a, Standard Method for Evaluation of Air, Assay Media by the Monodisperse DOP (Dioctyl Phthalate) Smoke Test, IBR approved for Appendix A: Method 5, Section 7.1.1; Method 12, Section 7.1.1; and Method 13A, Section 7.1.1.2.
- (a)(45) ASTM D3173-73, 87, Standard Test Method for Moisture in the Analysis Sample of Coal and Coke, IBR approved for Appendix A: Method 19, Section 12.5.2.1.3.
- (a)(46) ASTM D3176-74, 89, Standard Method for Ultimate Analysis of Coal and Coke, IBR approved for §60.45(f)(5)(i) and Appendix A: Method 19, Section 12.3.2.3.
- (a)(47) ASTM D3177-75, 89, Standard Test Method for Total Sulfur in the Analysis Sample of Coal and Coke, IBR approved for Appendix A: Method 19, Section 12.5.2.1.3.
- (a)(48) ASTM D3178-73 (Reapproved 1979), 89, Standard Test Methods for Carbon and Hydrogen in the Analysis Sample of Coal and Coke, IBR approved for §60.45(f)(5)(i).
- (a)(49) ASTM D3246-81, 92, 96, Standard Test Method for Sulfur in Petroleum Gas by Oxidative Microcoulometry, IBR approved for §60.335(b)(10)(ii).
- (a)(50) ASTM D3246-05, Standard Test Method for Sulfur in Petroleum Gas by Oxidative Microcoulometry, IBR approved for §60.4415(a)(1)(ii).
- (a)(51) ASTM D3270-73T, 80, 91, 95, Standard Test Methods for Analysis for Fluoride Content of the Atmosphere and Plant Tissues (Semiautomated Method), IBR approved for Appendix A: Method 13A, Section 16.1.
- (a)(52) ASTM D3286-85, 96, Standard Test Method for Gross Calorific Value of Coal and Coke by the Isoperibol Bomb Calorimeter, IBR approved for Appendix A: Method 19, Section 12.5.2.1.3.
- (a)(53) ASTM D3370-76, 95a, Standard Practices for Sampling Water, IBR approved for §60.564(j).
- (a)(54) ASTM D3699-08, Standard Specification for Kerosine, including Appendix X1, approved September 1, 2008, IBR approved for §§60.41b of subpart Db of this part and 60.41c of subpart Dc of this part.

(a)(55) ASTM D3792-79, 91, Standard Test Method for Water Content of Water-Reducible Paints by Direct Injection into a Gas Chromatograph, IBR approved for Appendix A: Method 24, Section 6.3.

(a)(56) ASTM D4017-81, 90, 96a, Standard Test Method for Water in Paints and Paint Materials by the Karl Fischer Titration Method, IBR approved for Appendix A: Method 24, Section 6.4.

(a)(57) ASTM D4057-81, 95, Standard Practice for Manual Sampling of Petroleum and Petroleum Products, IBR approved for Appendix A: Method 19, Section 12.5.2.2.3.

(a)(58) ASTM D4057-95 (Reapproved 2000), Standard Practice for Manual Sampling of Petroleum and Petroleum Products, IBR approved for §60.4415(a)(1).

(a)(59) ASTM D4084-82, 94, Standard Test Method for Analysis of Hydrogen Sulfide in Gaseous Fuels (Lead Acetate Reaction Rate Method), IBR approved for §60.334(h)(1).

(a)(60) ASTM D4084-05, Standard Test Method for Analysis of Hydrogen Sulfide in Gaseous Fuels (Lead Acetate Reaction Rate Method), IBR approved for §§60.4360 and 60.4415(a)(1)(ii).

(a)(61) ASTM D4177-95, Standard Practice for Automatic Sampling of Petroleum and Petroleum Products, IBR approved for Appendix A: Method 19, Section 12.5.2.2.1.

(a)(62) ASTM D4177-95 (Reapproved 2000), Standard Practice for Automatic Sampling of Petroleum and Petroleum Products, IBR approved for §60.4415(a)(1).

(a)(63) ASTM D4239-85, 94, 97, Standard Test Methods for Sulfur in the Analysis Sample of Coal and Coke Using High Temperature Tube Furnace Combustion Methods, IBR approved for Appendix A: Method 19, Section 12.5.2.1.3.

(a)(64) ASTM D4294-02, Standard Test Method for Sulfur in Petroleum and Petroleum Products by Energy-Dispersive X-Ray Fluorescence Spectrometry, IBR approved for §60.335(b)(10)(i).

(a)(65) ASTM D4294-03, Standard Test Method for Sulfur in Petroleum and Petroleum Products by Energy-Dispersive X-Ray Fluorescence Spectrometry, IBR approved for §60.4415(a)(1)(i).

(a)(66) ASTM D4442-84, 92, Standard Test Methods for Direct Moisture Content Measurement in Wood and Wood-base Materials, IBR approved for Appendix A: Method 28, Section 16.1.1.

(a)(67) ASTM D4444-92, Standard Test Methods for Use and Calibration of Hand-Held Moisture Meters, IBR approved for Appendix A: Method 28, Section 16.1.1.

(a)(68) ASTM D4457-85 (Reapproved 1991), Test Method for Determination of Dichloromethane and 1, 1, 1-Trichloroethane in Paints and Coatings by Direct Injection

- into a Gas Chromatograph, IBR approved for Appendix A: Method 24, Section 6.5.
- (a)(69) ASTM D4468-85 (Reapproved 2000), Standard Test Method for Total Sulfur in Gaseous Fuels by Hydrogenolysis and Rateometric Colorimetry, IBR approved for §§60.335(b)(10)(ii) and 60.4415(a)(1)(ii).
- (a)(70) ASTM D4629-02, Standard Test Method for Trace Nitrogen in Liquid Petroleum Hydrocarbons by Syringe/Inlet Oxidative Combustion and Chemiluminescence Detection, IBR approved for §§60.49b(e) and 60.335(b)(9)(i).
- (a)(71) ASTM D4809-95, Standard Test Method for Heat of Combustion of Liquid Hydrocarbon Fuels by Bomb Calorimeter (Precision Method), IBR approved for §§60.18(f)(3), 60.485(g)(6), 60.485a(g)(6), 60.564(f)(3), 60.614(d)(4), 60.664(e)(4), and 60.704(d)(4).
- (a)(72) ASTM D4810-88 (Reapproved 1999), Standard Test Method for Hydrogen Sulfide in Natural Gas Using Length of Stain Detector Tubes, IBR approved for §§60.4360 and 60.4415(a)(1)(ii).
- (a)(73) ASTM D5287-97 (Reapproved 2002), Standard Practice for Automatic Sampling of Gaseous Fuels, IBR approved for §60.4415(a)(1).
- (a)(74) ASTM D5403-93, Standard Test Methods for Volatile Content of Radiation Curable Materials, IBR approved for Appendix A: Method 24, Section 6.6.
- (a)(75) ASTM D5453-00, Standard Test Method for Determination of Total Sulfur in Light Hydrocarbons, Motor Fuels and Oils by Ultraviolet Fluorescence, IBR approved for §60.335(b)(10)(i).
- (a)(76) ASTM D5453-05, Standard Test Method for Determination of Total Sulfur in Light Hydrocarbons, Motor Fuels and Oils by Ultraviolet Fluorescence, IBR approved for §60.4415(a)(1)(i).
- (a)(77) ASTM D5504-01, Standard Test Method for Determination of Sulfur Compounds in Natural Gas and Gaseous Fuels by Gas Chromatography and Chemiluminescence, IBR approved for §§60.334(h)(1) and 60.4360.
- (a)(78) ASTM D5762-02, Standard Test Method for Nitrogen in Petroleum and Petroleum Products by Boat-Inlet Chemiluminescence, IBR approved for §60.335(b)(9)(i).
- (a)(79) ASTM D5865-98, Standard Test Method for Gross Calorific Value of Coal and Coke, IBR approved for §60.45(f)(5)(ii), 60.46(c)(2), and Appendix A: Method 19, Section 12.5.2.1.3.
- (a)(80) ASTM D6216-98, Standard Practice for Opacity Monitor Manufacturers to Certify Conformance with Design and Performance Specifications, IBR approved for Appendix B, Performance Specification 1.

- (a)(81) ASTM D6228-98, Standard Test Method for Determination of Sulfur Compounds in Natural Gas and Gaseous Fuels by Gas Chromatography and Flame Photometric Detection, IBR approved for §60.334(h)(1).
- (a)(82) ASTM D6348-03, Standard Test Method for Determination of Gaseous Compounds by Extractive Direct Interface Fourier Transform Infrared (FTIR) Spectroscopy, approved October 1, 2003, IBR approved for §60.73a(b) of subpart Ga of this part, table 7 of subpart III of this part, and table 2 of subpart JJJ of this part.
- (a)(83) ASTM D6348-03, Standard Test Method for Determination of Gaseous Compounds by Extractive Direct Interface Fourier Transform Infrared (FTIR) Spectroscopy, IBR approved for table 7 of Subpart III of this part and table 2 of subpart JJJ of this part.
- (a)(84) ASTM D6420-99 (Reapproved 2004), Standard Test Method for Determination of Gaseous Organic Compounds by Direct Interface Gas Chromatography-Mass Spectrometry, (Approved October 1, 2004), IBR approved for §60.107a(d) of subpart Ja and table 2 of subpart JJJ of this part.
- (a)(85) ASTM D6420-99 (Reapproved 2004) Standard Test Method for Determination of Gaseous Organic Compounds by Direct Interface Gas Chromatography-Mass Spectrometry, IBR approved for table 2 of subpart JJJ of this part.
- (a)(86) ASTM D6522-00 (Reapproved 2005), Standard Test Method for Determination of Nitrogen Oxides, Carbon Monoxide, and Oxygen Concentrations in Emissions from Natural Gas-Fired Reciprocating Engines, Combustion Turbines, Boilers, and Process Heaters Using Portable Analyzers (Approved October 1, 2005), IBR approved for table 2 of subpart JJJ of this part, and §§60.5413(b) and (d).
- (a)(87) ASTM D6522-00 (Reapproved 2005), Standard Test Method for Determination of Nitrogen Oxides, Carbon Monoxide, and Oxygen Concentrations in Emissions from Natural Gas-Fired Reciprocating Engines, Combustion Turbines, Boilers, and Process Heaters Using Portable Analyzers, IBR approved for table 2 of subpart JJJ of this part.
- (a)(88) ASTM D6667-01, Standard Test Method for Determination of Total Volatile Sulfur in Gaseous Hydrocarbons and Liquefied Petroleum Gases by Ultraviolet Fluorescence, IBR approved for §60.335(b)(10)(ii).
- (a)(89) ASTM D6667-04, Standard Test Method for Determination of Total Volatile Sulfur in Gaseous Hydrocarbons and Liquefied Petroleum Gases by Ultraviolet Fluorescence, IBR approved for §60.4415(a)(1)(ii).
- (a)(90) ASTM D6751-11b, Standard Specification for Biodiesel Fuel Blend Stock (B100) for Middle Distillate Fuels, including Appendices X1 through X3, approved July 15, 2011, IBR approved for §§60.41b of subpart Db of this part and 60.41c of subpart Dc of this part.
- (a)(91) ASTM E169-93, Standard Practices for General Techniques of Ultraviolet-Visible Quantitative Analysis (Approved May 15, 1993), IBR approved for §§60.485a(d),

60.593(b), 60.593a(b), 60.632(f) and 60.5400(f).

- (a)(92) ASTM E260-96, Standard Practice for Packed Column Gas Chromatography (Approved April 10, 1996), IBR approved for §§60.485a(d), 60.593(b), 60.593a(b), 60.632(f), 60.5400(f) and 60.5406(b).
- (a)(93) ASTM D7467-10, Standard Specification for Diesel Fuel Oil, Biodiesel Blend (B6 to B20), including Appendices X1 through X3, approved August 1, 2010, IBR approved for §§60.41b of subpart Db of this part and 60.41c of subpart Dc of this part.
- (a)(94) ASTM E169-63, 77, 93, General Techniques of Ultraviolet Quantitative Analysis, IBR approved for §§60.485a(d)(1), 60.593(b)(2), 60.593a(b)(2), and 60.632(f).
- (a)(95) ASTM D3588-98 (Reapproved 2003), Standard Practice for Calculating Heat Value, Compressibility Factor, and Relative Density of Gaseous Fuels, (Approved May 10, 2003), IBR approved for §§60.107a(d) and 60.5413(d).
- (a)(96) ASTM D4891-89 (Reapproved 2006), Standard Test Method for Heating Value of Gases in Natural Gas Range by Stoichiometric Combustion, (Approved June 1, 2006), IBR approved for §§60.107a(d) and 60.5413(d).
- (a)(97) ASTM D1945-03 (Reapproved 2010), Standard Method for Analysis of Natural Gas by Gas Chromatography, (Approved January 1, 2010), IBR approved for §§60.107a(d) and 60.5413(d).
- (a)(98) ASTM D5504-08, Standard Test Method for Determination of Sulfur Compounds in Natural Gas and Gaseous Fuels by Gas Chromatography and Chemiluminescence, (Approved June 15, 2008), IBR approved for §§60.107a(e) and 60.5413(d).
- (a)(99) ASTM E1584-11, Standard Test Method for Assay of Nitric Acid, approved August 1, 2011, IBR approved for §60.73a(c) of subpart Ga of this part.
- (a)(100) ASTM D4468-85 (Reapproved 2006), Standard Test Method for Total Sulfur in Gaseous Fuels by Hydrogenolysis and Rateometric Colorimetry (Approved June 1, 2006), IBR approved for §60.107a(e).
- (a)(101) ASTM D240-02 (Reapproved 2007), Standard Test Method for Heat of Combustion of Liquid Hydrocarbon Fuels by Bomb Calorimeter, (Approved May 1, 2007), IBR approved for §60.107a(d).
- (a)(102) ASTM D1826-94 (Reapproved 2003), Standard Test Method for Calorific (Heating) Value of Gases in Natural Gas Range by Continuous Recording Calorimeter, (Approved May 10, 2003), IBR approved for §60.107a(d).
- (a)(103) ASTM D1946-90 (Reapproved 2006), Standard Method for Analysis of Reformed Gas by Gas Chromatography, (Approved June 1, 2006), IBR approved for §60.107a(d).
- (a)(104) ASTM D4809-06, Standard Test Method for Heat of Combustion of Liquid

Hydrocarbon Fuels by Bomb Calorimeter (Precision Method), (Approved December 1, 2006), IBR approved for §60.107a(d).

(a)(105) ASTM UOP539-97, Refinery Gas Analysis by Gas Chromatography, (Copyright 1997), IBR approved for §60.107a(d).

(a)(106) ASTM D3699-08, Standard Specification for Kerosine, including Appendix X1, (Approved September 1, 2008), IBR approved for §§60.41b of subpart Db and 60.41c of subpart Dc of this part.

(a)(107) ASTM D6751-11b, Standard Specification for Biodiesel Fuel Blend Stock (B100) for Middle Distillate Fuels, including Appendices X1 through X3, (Approved July 15, 2011), IBR approved for §§60.41b of subpart Db and 60.41c of subpart Dc of this part.

(a)(108) ASTM D7467-10, Standard Specification for Diesel Fuel Oil, Biodiesel Blend (B6 to B20), including Appendices X1 through X3, (Approved August 1, 2010), IBR approved for §§60.41b of subpart Db and 60.41c of subpart Dc of this part.

(b) The following material is available for purchase from the Association of Official Analytical Chemists, 1111 North 19th Street, Suite 210, Arlington, VA 22209.

(b)(1) AOAC Method 9, Official Methods of Analysis of the Association of Official Analytical Chemists, 11th edition, 1970, pp. 11-12, IBR approved January 27, 1983 for §§60.204(b)(3), 60.214(b)(3), 60.224(b)(3), 60.234(b)(3).

(c) The following material is available for purchase from the American Petroleum Institute, 1220 L Street NW., Washington, DC 20005.

(c)(1) API Publication 2517, Evaporation Loss from External Floating Roof Tanks, Second Edition, February 1980, IBR approved January 27, 1983, for §§60.111(i), 60.111a(f), 60.111a(f)(1) and 60.116b(e)(2)(i).

(c)(2) American Petroleum Institute (API) Manual of Petroleum Measurement Standards, Chapter 22-Testing Protocol, Section 2-Differential Pressure Flow Measurement Devices, First Edition, August 2005, IBR approved for §60.107a(d) of subpart Ja of this part.

(d) The following material is available for purchase from the Technical Association of the Pulp and Paper Industry (TAPPI), Dunwoody Park, Atlanta, GA 30341.

(d)(1) TAPPI Method T624 os-68, IBR approved January 27, 1983 for §60.285(d)(3).

(e) The following material is available for purchase from the Water Pollution Control Federation (WPCF), 2626 Pennsylvania Avenue NW., Washington, DC 20037.

(e)(1) Method 209A, Total Residue Dried at 103-105°C, in Standard Methods for the Examination of Water and Wastewater, 15th Edition, 1980, IBR approved February 25, 1985 for §60.683(b).

- (f) The following material is available for purchase from the following address:  
Underwriter's Laboratories, Inc. (UL), 333 Pfingsten Road, Northbrook, IL 60062.
- (f)(1) UL 103, Sixth Edition revised as of September 3, 1986, Standard for Chimneys, Factory-built, Residential Type and Building Heating Appliance.
- (g) The following material is available for purchase from the following address: West Coast Lumber Inspection Bureau, 6980 SW. Barnes Road, Portland, OR 97223.
- (g)(1) West Coast Lumber Standard Grading Rules No. 16, pages 5-21 and 90 and 91, September 3, 1970, revised 1984.
- (h) The following material is available for purchase from the American Society of Mechanical Engineers (ASME), Three Park Avenue, New York, NY 10016-5990, Telephone (800) 843-2763, and are also available at the following Web site:  
<http://www.asme.org>.
- (h)(1) ASME QRO-1-1994, Standard for the Qualification and Certification of Resource Recovery Facility Operators, IBR approved for §§60.56a, 60.54b(a), 60.54b(b), 60.1185(a), 60.1185(c)(2), 60.1675(a), and 60.1675(c)(2).
- (h)(2) ASME PTC 4.1-1964 (Reaffirmed 1991), Power Test Codes: Test Code for Steam Generating Units (with 1968 and 1969 Addenda), IBR approved for §§60.46b of subpart Db of this part, 60.58a(h)(6)(ii), 60.58b(i)(6)(ii), 60.1320(a)(3) and 60.1810(a)(3).
- (h)(3) ASME Interim Supplement 19.5 on Instruments and Apparatus: Application, Part II of Fluid Meters, 6th Edition (1971), IBR approved for §§60.58a(h)(6)(ii), 60.58b(i)(6)(ii), 60.1320(a)(4), and 60.1810(a)(4).
- (h)(4) ANSI/ASME PTC 19.10-1981, Flue and Exhaust Gas Analyses [Part 10, Instruments and Apparatus], (Issued August 31, 1981), IBR approved for §60.56c(b), §60.63(f), §60.106(e), §60.104a(d), (h), (i), and (j), §60.105a(d), (f), and (g), §60.106a(a), §60.107a(a), (c), and (e), tables 1 and 3 of subpart EEEE, tables 2 and 4 of subpart FFFF, table 2 of subpart JJJJ, §§60.4415(a), 60.2145(s), 60.2145(t), 60.2710(s), 60.2710(t), 60.2710(w), 60.2730(q), 60.4900(b), 60.5220(b), tables 1 and 2 to subpart LLLL, tables 2 and 3 to subpart MMMM, §§60.5406(c) and 60.5413(b).
- (h)(5) ASME MFC-3M-2004, Measurement of Fluid Flow in Pipes Using Orifice, Nozzle, and Venturi, IBR approved for §60.107a(d) of subpart Ja of this part.
- (h)(6) ANSI/ASME MFC-4M-1986 (Reaffirmed 2008), Measurement of Gas Flow by Turbine Meters, IBR approved for §60.107a(d) of subpart Ja of this part.
- (h)(7) ANSI/ASME-MFC-5M-1985 (Reaffirmed 2006), Measurement of Liquid Flow in Closed Conduits Using Transit-Time Ultrasonic Flowmeters, IBR approved for §60.107a(d) of subpart Ja of this part.

(h)(8) ASME MFC-6M-1998 (Reaffirmed 2005), Measurement of Fluid Flow in Pipes Using Vortex Flowmeters, IBR approved for §60.107a(d) of subpart Ja of this part.

(h)(9) ASME/ANSI MFC-7M-1987 (Reaffirmed 2006), Measurement of Gas Flow by Means of Critical Flow Venturi Nozzles, IBR approved for §60.107a(d) of subpart Ja of this part.

(h)(10) ASME/ANSI MFC-9M-1988 (Reaffirmed 2006), Measurement of Liquid Flow in Closed Conduits by Weighing Method, IBR approved for §60.107a(d) of subpart Ja of this part.

(h)(11) ASME MFC-11M-2006, Measurement of Fluid Flow by Means of Coriolis Mass Flowmeters, IBR approved for §60.107a(d) of subpart Ja of this part.

(h)(12) ASME MFC-14M-2003, Measurement of Fluid Flow Using Small Bore Precision Orifice Meters, IBR approved for §60.107a(d) of subpart Ja of this part.

(h)(13) ASME MFC-16-2007, Measurement of Liquid Flow in Closed Conduits with Electromagnetic Flowmeters, IBR approved for §60.107a(d) of subpart Ja of this part.

(h)(14) ASME MFC-18M-2001, Measurement of Fluid Flow Using Variable Area Meters, IBR approved for §60.107a(d) of subpart Ja of this part.

(h)(15) ASME MFC-22-2007, Measurement of Liquid by Turbine Flowmeters, IBR approved for §60.107a(d) of subpart Ja of this part.

(i) Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846 Third Edition (November 1986), as amended by Updates I (July 1992), II (September 1994), IIA (August, 1993), IIB (January 1995), and III (December 1996). This document may be obtained from the U.S. EPA, Office of Solid Waste and Emergency Response, Waste Characterization Branch, Washington, DC 20460, and is incorporated by reference for Appendix A to Part 60, Method 29, Sections 7.5.34; 9.2.1; 9.2.3; 10.2; 10.3; 11.1.1; 11.1.3; 13.2.1; 13.2.2; 13.3.1; and Table 29-3.

(j) "Standard Methods for the Examination of Water and Wastewater," 16th edition, 1985. Method 303F: "Determination of Mercury by the Cold Vapor Technique." This document may be obtained from the American Public Health Association, 1015 18th Street, NW., Washington, DC 20036, and is incorporated by reference for Appendix A to Part 60, Method 29, Sections 9.2.3; 10.3; and 11.1.3.

(k) This material is available for purchase from the American Hospital Association (AHA) Service, Inc., Post Office Box 92683, Chicago, Illinois 60675-2683. You may inspect a copy at EPA's Air and Radiation Docket and Information Center (Docket A-91-61, Item IV-J-124), Room M-1500, 401 M St., SW., Washington, DC.

(k)(1) An Ounce of Prevention: Waste Reduction Strategies for Health Care Facilities. American Society for Health Care Environmental Services of the American Hospital Association. Chicago, Illinois. 1993. AHA Catalog No. 057007. ISBN 0-87258-673-5. IBR

approved for §60.35e and §60.55c.

(l) This material is available for purchase from the National Technical Information Services, 5285 Port Royal Road, Springfield, Virginia 22161. You may inspect a copy at EPA's Air and Radiation Docket and Information Center (Docket A-91-61, Item IV-J-125), Room M-1500, 401 M St., SW., Washington, DC.

(l)(1) OMB Bulletin No. 93-17: Revised Statistical Definitions for Metropolitan Areas. Office of Management and Budget, June 30, 1993. NTIS No. PB 93-192-664. IBR approved for §60.31e.

(m) This material is available for purchase from at least one of the following addresses: The Gas Processors Association, 6526 East 60th Street, Tulsa, OK, 74145; or Information Handling Services, 15 Inverness Way East, PO Box 1154, Englewood, CO 80150-1154. You may inspect a copy at EPA's Air and Radiation Docket and Information Center, Room 3334, 1301 Constitution Ave., NW., Washington, DC 20460.

(m)(1) Gas Processors Association Standard 2377-86, Test for Hydrogen Sulfide and Carbon Dioxide in Natural Gas Using Length of Stain Tubes, 1986 Revision, IBR approved for §§60.105(b)(1)(iv), 60.107a(b)(1)(iv), 60.334(h)(1), 60.4360, and 60.4415(a)(1)(ii).

(m)(2) Gas Processors Association Standard 2172-09, Calculation of Gross Heating Value, Relative Density, Compressibility and Theoretical Hydrocarbon Liquid Content for Natural Gas Mixtures for Custody Transfer (2009), IBR approved for §60.107a(d) of subpart Ja of this part.

(m)(3) Gas Processors Association Standard 2261-00, Analysis for Natural Gas and Similar Gaseous Mixtures by Gas Chromatography (2000), IBR approved for §60.107a(d) of subpart Ja of this part.

(n) This material is available for purchase from IHS Inc., 15 Inverness Way East, Englewood, CO 80112.

(n)(1) International Organization for Standards 8178-4: 1996(E), Reciprocating Internal Combustion Engines--Exhaust Emission Measurement--Part 4: Test Cycles for Different Engine Applications, IBR approved for §60.4241(b).

(n)(2) [Reserved]

(o) The following material is available from the U.S. Environmental Protection Agency, 1200 Pennsylvania Avenue, NW., Washington, DC 20460, (202) 272-0167, <http://www.epa.gov>.

(o)(1) Office of Air Quality Planning and Standards (OAQPS) Fabric Filter Bag Leak Detection Guidance, EPA-454/R-98-015, September 1997, IBR approved for §§60.2145(r)(2), 60.2710(r)(2), 60.4905(b)(3)(i)(B), and 60.5225(b)(3)(i)(B).

(o)(2) [Reserved]

(p) The following American Gas Association material is available for purchase from the following address: ILI Infodisk, 610 Winters Avenue, Paramus, New Jersey 07652:

(p)(1) American Gas Association Report No. 3: Orifice Metering for Natural Gas and Other Related Hydrocarbon Fluids, Part 1: General Equations and Uncertainty Guidelines (1990), IBR approved for §60.107a(d) of subpart Ja of this part.

(p)(2) American Gas Association Report No. 3: Orifice Metering for Natural Gas and Other Related Hydrocarbon Fluids, Part 2: Specification and Installation Requirements (2000), IBR approved for §60.107a(d) of subpart Ja of this part.

(p)(3) American Gas Association Report No. 11: Measurement of Natural Gas by Coriolis Meter (2003), IBR approved for §60.107a(d) of subpart Ja of this part.

(p)(4) American Gas Association Transmission Measurement Committee Report No. 7: Measurement of Gas by Turbine Meters (Revised February 2006), IBR approved for §60.107a(d) of subpart Ja of this part.

(q) The following material is available for purchase from the International Standards Organization (ISO), 1, ch. de la Voie-Creuse, Case postale 56, CH-1211 Geneva 20, Switzerland, +41 22 749 01 11, <http://www.iso.org/iso/home.htm>.

(q)(1) ISO 8316: Measurement of Liquid Flow in Closed Conduits--Method by Collection of the Liquid in a Volumetric Tank (1987-10-01)--First Edition, IBR approved for §60.107a(d) of subpart Ja of this part.

(q)(2) [Reserved]

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 EFFECTIVE DATE NOTE: This change becomes effective April 1, 2013.

(r) The following material is available from the North American Electric Reliability Corporation, 3353 Peachtree Road NE, Suite 600, North Tower, Atlanta, GA 30326, <http://www.nerc.com>, and is available at the following website: [http://www.nerc.com/files/EOP-002-3\\_1.pdf](http://www.nerc.com/files/EOP-002-3_1.pdf).

(r)(1) North American Electric Reliability Corporation, Reliability Standards for the Bulk of Electric Systems of North America, Reliability Standard EOP-002-3, Capacity and Energy Emergencies, updated November 19, 2012, IBR approved for §§60.4211(f) and 60.4243(d).

(r)(2) [Reserved]

***The Smith Pond Generator is not subject to measurements and monitoring requirements under 40 CFR 60 Subpart III since engine displacement is <30 liters/cylinder.***

**40 CFR §60.18 General Control Device And Work Practice Requirements.**

(a) Introduction. (1) This section contains requirements for control devices used to comply with applicable subparts of 40 CFR parts 60 and 61. The requirements are placed here for administrative convenience and apply only to facilities covered by subparts referring to this section.

(a)(2) This section also contains requirements for an alternative work practice used to identify leaking equipment. This alternative work practice is placed here for administrative convenience and is available to all subparts in 40 CFR parts 60, 61, 63, and 65 that require monitoring of equipment with a 40 CFR part 60, Appendix A-7, Method 21 monitor.

(b) Flares. Paragraphs (c) through (f) apply to flares.

(c)(1) Flares shall be designed for and operated with no visible emissions as determined by the methods specified in paragraph (f), except for periods not to exceed a total of 5 minutes during any 2 consecutive hours.

(c)(2) Flares shall be operated with a flame present at all times, as determined by the methods specified in paragraph (f).

(c)(3) An owner/operator has the choice of adhering to either the heat content specifications in paragraph (c)(3)(ii) of this section and the maximum tip velocity specifications in paragraph (c)(4) of this section, or adhering to the requirements in paragraph (c)(3)(i) of this section.

(c)(3)(i)(A) Flares shall be used that have a diameter of 3 inches or greater, are nonassisted, have a hydrogen content of 8.0 percent (by volume), or greater, and are designed for and operated with an exit velocity less than 37.2 m/sec (122 ft/sec) and less than the velocity,  $V_{max}$ , as determined by the following equation:

$$V_{max} = (XH_2 - K_1) * K_2$$

Where:

$V_{max}$  = Maximum permitted velocity, m/sec.

$K_1$  = Constant, 6.0 volume-percent hydrogen.

$K_2$  = Constant, 3.9 (m/sec)/volume-percent hydrogen.

$XH_2$  = The volume-percent of hydrogen, on a wet basis, as calculated by using the American Society for Testing and Materials (ASTM) Method D1946-77. (Incorporated by reference as specified in §60.17).

(c)(3)(i)(B) The actual exit velocity of a flare shall be determined by the method specified in paragraph (f)(4) of this section.

(c)(3)(ii) Flares shall be used only with the net heating value of the gas being combusted being 11.2 MJ/scm (300 Btu/scf) or greater if the flare is steam-assisted or air-assisted; or with the net heating value of the gas being combusted being 7.45 MJ/scm (200 Btu/scf) or greater if the flare is nonassisted. The net heating value of the gas being combusted shall be determined by the methods specified in paragraph (f)(3) of this section.

(c)(4)(i) Steam-assisted and nonassisted flares shall be designed for and operated with an exit velocity, as determined by the methods specified in paragraph (f)(4) of this section, less than 18.3 m/sec (60 ft/sec), except as provided in paragraphs (c)(4)(ii) and (iii) of this section.

(c)(4)(ii) Steam-assisted and nonassisted flares designed for and operated with an exit velocity, as determined by the methods specified in paragraph (f)(4), equal to or greater than 18.3 m/sec (60 ft/sec) but less than 122 m/sec (400 ft/sec) are allowed if the net heating value of the gas being combusted is greater than 37.3 MJ/scm (1,000 Btu/scf).

(c)(4)(iii) Steam-assisted and nonassisted flares designed for and operated with an exit velocity, as determined by the methods specified in paragraph (f)(4), less than the velocity,  $V_{max}$ , as determined by the method specified in paragraph (f)(5), and less than 122 m/sec (400 ft/sec) are allowed.

(c)(5) Air-assisted flares shall be designed and operated with an exit velocity less than the velocity,  $V_{max}$ , as determined by the method specified in paragraph (f)(6).

(c)(6) Flares used to comply with this section shall be steam-assisted, air-assisted, or nonassisted.

(d) Owners or operators of flares used to comply with the provisions of this subpart shall monitor these control devices to ensure that they are operated and maintained in conformance with their designs. Applicable subparts will provide provisions stating how owners or operators of flares shall monitor these control devices.

(e) Flares used to comply with provisions of this subpart shall be operated at all times when emissions may be vented to them.

(f)(1) Method 22 of Appendix A to this part shall be used to determine the compliance of flares with the visible emission provisions of this subpart. The observation period is 2 hours and shall be used according to Method 22.

(f)(2) The presence of a flare pilot flame shall be monitored using a thermocouple or any other equivalent device to detect the presence of a flame.

(f)(3) The net heating value of the gas being combusted in a flare shall be calculated using the following equation:

$$HT = K \sum_{i=1}^n C_i H_i$$

where:

HT = Net heating value of the sample, MJ/scm; where the net enthalpy per mole of offgas is based on combustion at 25°C and 760 mm Hg, but the standard temperature for determining the volume corresponding to one mole is 20°C;

$$K = \text{Constant}, 1.740 \times 10^{-7} \left( \frac{\text{g mole MJ}}{\text{ppm scm kcal}} \right) \text{ (-----)}$$

where the standard temperature for (-----) is 20°C;  
 g mole  
 scm

C<sub>i</sub> = Concentration of sample component i in ppm on a wet basis, as measured for organics by Reference Method 18 and measured for hydrogen and carbon monoxide by ASTM D1946-77 or 90 (Reapproved 1994) (Incorporated by reference as specified in §60.17); and

H<sub>i</sub> = Net heat of combustion of sample component i, kcal/g mole at 25°C and 760 mm Hg. The heats of combustion may be determined using ASTM D2382-76 or 88 or D4809-95 (incorporated by reference as specified in §60.17) if published values are not available or cannot be calculated.

(f)(4) The actual exit velocity of a flare shall be determined by dividing the volumetric flowrate (in units of standard temperature and pressure), as determined by Reference Methods 2, 2A, 2C, or 2D as appropriate; by the unobstructed (free) cross sectional area of the flare tip.

(f)(5) The maximum permitted velocity, V<sub>max</sub>, for flares complying with paragraph (c)(4)(iii) shall be determined by the following equation.

$$\text{Log}_{10} (V_{\text{max}}) = (HT + 28.8) / 31.7$$

V<sub>max</sub> = Maximum permitted velocity, M/sec

28.8 = Constant

31.7 = Constant

HT = The net heating value as determined in paragraph (f)(3).

(f)(6) The maximum permitted velocity, V<sub>max</sub>, for air-assisted flares shall be determined by the following equation.

$$V_{\text{max}} = 8.706 + 0.7084 (HT)$$

V<sub>max</sub> = Maximum permitted velocity, m/sec

8.706 = Constant

0.7084 = Constant

HT = The net heating value as determined in paragraph (f)(3).

(g) Alternative work practice for monitoring equipment for leaks. Paragraphs (g), (h), and (i) of this section apply to all equipment for which the applicable subpart requires monitoring with a 40 CFR part 60, Appendix A-7, Method 21 monitor, except for closed vent systems, equipment designated as leakless, and equipment identified in the applicable subpart as having no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background. An owner or operator may use an optical gas imaging instrument instead of a 40 CFR part 60, Appendix A-7, Method 21 monitor. Requirements in the existing subparts that are specific to the Method 21 instrument do not apply under this section. All other requirements in the applicable subpart that are not addressed in paragraphs (g), (h), and (i) of this section apply to this standard. For example, equipment specification requirements, and non-Method 21 instrument recordkeeping and reporting requirements in the applicable subpart continue to apply. The terms defined in paragraphs (g)(1) through (5) of this section have meanings that are specific to the alternative work practice standard in paragraphs (g), (h), and (i) of this section.

(g)(1) Applicable subpart means the subpart in 40 CFR parts 60, 61, 63, or 65 that requires monitoring of equipment with a 40 CFR part 60, Appendix A-7, Method 21 monitor.

(g)(2) Equipment means pumps, valves, pressure relief valves, compressors, open-ended lines, flanges, connectors, and other equipment covered by the applicable subpart that require monitoring with a 40 CFR part 60, Appendix A-7, Method 21 monitor.

(g)(3) Imaging means making visible emissions that may otherwise be invisible to the naked eye.

(g)(4) Optical gas imaging instrument means an instrument that makes visible emissions that may otherwise be invisible to the naked eye.

(g)(5) Repair means that equipment is adjusted, or otherwise altered, in order to eliminate a leak.

(g)(6) Leak means:

(g)(6)(i) Any emissions imaged by the optical gas instrument;

(g)(6)(ii) Indications of liquids dripping;

(g)(6)(iii) Indications by a sensor that a seal or barrier fluid system has failed; or

(g)(6)(iv) Screening results using a 40 CFR part 60, Appendix A-7, Method 21 monitor that exceed the leak definition in the applicable subpart to which the equipment is subject.

(h) The alternative work practice standard for monitoring equipment for leaks is available to all subparts in 40 CFR parts 60, 61, 63, and 65 that require monitoring of equipment with a 40 CFR part 60, Appendix A-7, Method 21 monitor.

(h)(1) An owner or operator of an affected source subject to CFR parts 60, 61, 63, or 65 can choose to comply with the alternative work practice requirements in paragraph (i) of this

section instead of using the 40 CFR part 60, Appendix A-7, Method 21 monitor to identify leaking equipment. The owner or operator must document the equipment, process units, and facilities for which the alternative work practice will be used to identify leaks.

(h)(2) Any leak detected when following the leak survey procedure in paragraph (i)(3) of this section must be identified for repair as required in the applicable subpart.

(h)(3) If the alternative work practice is used to identify leaks, re-screening after an attempted repair of leaking equipment must be conducted using either the alternative work practice or the 40 CFR part 60, Appendix A-7, Method 21 monitor at the leak definition required in the applicable subpart to which the equipment is subject.

(h)(4) The schedule for repair is as required in the applicable subpart.

(h)(5) When this alternative work practice is used for detecting leaking equipment, choose one of the monitoring frequencies listed in Table 1 to subpart A of this part in lieu of the monitoring frequency specified for regulated equipment in the applicable subpart. Reduced monitoring frequencies for good performance are not applicable when using the alternative work practice.

(h)(6) When this alternative work practice is used for detecting leaking equipment the following are not applicable for the equipment being monitored:

(h)(6)(i) Skip period leak detection and repair;

(h)(6)(ii) Quality improvement plans; or

(h)(6)(iii) Complying with standards for allowable percentage of valves and pumps to leak.

(h)(7) When the alternative work practice is used to detect leaking equipment, the regulated equipment in paragraph (h)(1)(i) of this section must also be monitored annually using a 40 CFR part 60, Appendix A-7, Method 21 monitor at the leak definition required in the applicable subpart. The owner or operator may choose the specific monitoring period (for example, first quarter) to conduct the annual monitoring. Subsequent monitoring must be conducted every 12 months from the initial period. Owners or operators must keep records of the annual Method 21 screening results, as specified in paragraph (i)(4)(vii) of this section.

(i) An owner or operator of an affected source who chooses to use the alternative work practice must comply with the requirements of paragraphs (i)(1) through (i)(5) of this section.

(i)(1) Instrument Specifications. The optical gas imaging instrument must comply with the requirements in (i)(1)(i) and (i)(1)(ii) of this section.

(i)(1)(i) Provide the operator with an image of the potential leak points for each piece of equipment at both the detection sensitivity level and within the distance used in the daily instrument check described in paragraph (i)(2) of this section. The detection sensitivity

level depends upon the frequency at which leak monitoring is to be performed.

(i)(1)(ii) Provide a date and time stamp for video records of every monitoring event.

(i)(2) Daily Instrument Check. On a daily basis, and prior to beginning any leak monitoring work, test the optical gas imaging instrument at the mass flow rate determined in paragraph (i)(2)(i) of this section in accordance with the procedure specified in paragraphs (i)(2)(ii) through (i)(2)(iv) of this section for each camera configuration used during monitoring (for example, different lenses used), unless an alternative method to demonstrate daily instrument checks has been approved in accordance with paragraph (i)(2)(v) of this section.

(i)(2)(i) Calculate the mass flow rate to be used in the daily instrument check by following the procedures in paragraphs (i)(2)(i)(A) and (i)(2)(i)(B) of this section.

(i)(2)(i)(A) For a specified population of equipment to be imaged by the instrument, determine the piece of equipment in contact with the lowest mass fraction of chemicals that are detectable, within the distance to be used in paragraph (i)(2)(iv)(B) of this section, at or below the standard detection sensitivity level.

(i)(2)(i)(B) Multiply the standard detection sensitivity level, corresponding to the selected monitoring frequency in Table 1 of subpart A of this part, by the mass fraction of detectable chemicals from the stream identified in paragraph (i)(2)(i)(A) of this section to determine the mass flow rate to be used in the daily instrument check, using the following equation.

Where:

$E_{dic}$  = Mass flow rate for the daily instrument check, grams per hour

$x_i$  = Mass fraction of detectable chemical(s)  $i$  seen by the optical gas imaging instrument, within the distance to be used in paragraph (i)(2)(iv)(B) of this section, at or below the standard detection sensitivity level, Esds.

$E_{sds}$  = Standard detection sensitivity level from Table 1 to subpart A, grams per hour

$k$  = Total number of detectable chemicals emitted from the leaking equipment and seen by the optical gas imaging instrument.

(i)(2)(ii) Start the optical gas imaging instrument according to the manufacturer's instructions, ensuring that all appropriate settings conform to the manufacturer's instructions.

(i)(2)(iii) Use any gas chosen by the user that can be viewed by the optical gas imaging instrument and that has a purity of no less than 98 percent.

(i)(2)(iv) Establish a mass flow rate by using the following procedures:

- (i)(2)(iv)(A) Provide a source of gas where it will be in the field of view of the optical gas imaging instrument.
- (i)(2)(iv)(B) Set up the optical gas imaging instrument at a recorded distance from the outlet or leak orifice of the flow meter that will not be exceeded in the actual performance of the leak survey. Do not exceed the operating parameters of the flow meter.
- (i)(2)(iv)(C) Open the valve on the flow meter to set a flow rate that will create a mass emission rate equal to the mass rate specified in paragraph (i)(2)(i) of this section while observing the gas flow through the optical gas imaging instrument viewfinder. When an image of the gas emission is seen through the viewfinder at the required emission rate, make a record of the reading on the flow meter.
- (i)(2)(v) Repeat the procedures specified in paragraphs (i)(2)(ii) through (i)(2)(iv) of this section for each configuration of the optical gas imaging instrument used during the leak survey.
- (i)(2)(vi) To use an alternative method to demonstrate daily instrument checks, apply to the Administrator for approval of the alternative under §60.13(i).
- (i)(3) Leak Survey Procedure. Operate the optical gas imaging instrument to image every regulated piece of equipment selected for this work practice in accordance with the instrument manufacturer's operating parameters. All emissions imaged by the optical gas imaging instrument are considered to be leaks and are subject to repair. All emissions visible to the naked eye are also considered to be leaks and are subject to repair.
- (i)(4) Recordkeeping. You must keep the records described in paragraphs (i)(4)(i) through (i)(4)(vii) of this section:
- (i)(4)(i) The equipment, processes, and facilities for which the owner or operator chooses to use the alternative work practice.
- (i)(4)(ii) The detection sensitivity level selected from Table 1 to subpart A of this part for the optical gas imaging instrument.
- (i)(4)(iii) The analysis to determine the piece of equipment in contact with the lowest mass fraction of chemicals that are detectable, as specified in paragraph (i)(2)(i)(A) of this section.
- (i)(4)(iv) The technical basis for the mass fraction of detectable chemicals used in the equation in paragraph (i)(2)(i)(B) of this section.
- (i)(4)(v) The daily instrument check. Record the distance, per paragraph (i)(2)(iv)(B) of this section, and the flow meter reading, per paragraph (i)(2)(iv)(C) of this section, at which the leak was imaged. Keep a video record of the daily instrument check for each configuration of the optical gas imaging instrument used during the leak survey (for example, the daily instrument check must be conducted for each lens used). The video record must include a

time and date stamp for each daily instrument check. The video record must be kept for 5 years.

(i)(4)(vi) Recordkeeping requirements in the applicable subpart. A video record must be used to document the leak survey results. The video record must include a time and date stamp for each monitoring event. A video record can be used to meet the recordkeeping requirements of the applicable subparts if each piece of regulated equipment selected for this work practice can be identified in the video record. The video record must be kept for 5 years.

(i)(4)(vii) The results of the annual Method 21 screening required in paragraph (h)(7) of this section. Records must be kept for all regulated equipment specified in paragraph (h)(1) of this section. Records must identify the equipment screened, the screening value measured by Method 21, the time and date of the screening, and calibration information required in the existing applicable subpart.

(i)(5) Reporting. Submit the reports required in the applicable subpart. Submit the records of the annual Method 21 screening required in paragraph (h)(7) of this section to the Administrator via e-mail to CCG-AWP@EPA.GOV.

***The provisions of 40 CFR 60.18 are not applicable to the Smith Pond Generator engine as stated in 40 CFR 60 Table 8 To Subpart III. Applicable requirements in 40 CFR 60 Subpart III are addressed later in this form.***

#### **40 CFR §60.19 General Notification And Reporting Requirements.**

(a) For the purposes of this part, time periods specified in days shall be measured in calendar days, even if the word "calendar" is absent, unless otherwise specified in an applicable requirement.

(b) For the purposes of this part, if an explicit postmark deadline is not specified in an applicable requirement for the submittal of a notification, application, report, or other written communication to the Administrator, the owner or operator shall postmark the submittal on or before the number of days specified in the applicable requirement. For example, if a notification must be submitted 15 days before a particular event is scheduled to take place, the notification shall be postmarked on or before 15 days preceding the event; likewise, if a notification must be submitted 15 days after a particular event takes place, the notification shall be delivered or postmarked on or before 15 days following the end of the event. The use of reliable non-Government mail carriers that provide indications of verifiable delivery of information required to be submitted to the Administrator, similar to the postmark provided by the U.S. Postal Service, or alternative means of delivery, including the use of electronic media, agreed to by the permitting authority, is acceptable.

(c) Notwithstanding time periods or postmark deadlines specified in this part for the submittal of information to the Administrator by an owner or operator, or the review of such information by the Administrator, such time periods or deadlines may be changed by mutual agreement between the owner or operator and the Administrator. Procedures governing the implementation of this provision are specified in paragraph (f) of this section.

(d) If an owner or operator of an affected facility in a State with delegated authority is required to submit periodic reports under this part to the State, and if the State has an established timeline for the submission of periodic reports that is consistent with the reporting frequency(ies) specified for such facility under this part, the owner or operator may change the dates by which periodic reports under this part shall be submitted (without changing the frequency of reporting) to be consistent with the State's schedule by mutual agreement between the owner or operator and the State. The allowance in the previous sentence applies in each State beginning 1 year after the affected facility is required to be in compliance with the applicable subpart in this part. Procedures governing the implementation of this provision are specified in paragraph (f) of this section.

(e) If an owner or operator supervises one or more stationary sources affected by standards set under this part and standards set under part 61, part 63, or both such parts of this chapter, he/she may arrange by mutual agreement between the owner or operator and the Administrator (or the State with an approved permit program) a common schedule on which periodic reports required by each applicable standard shall be submitted throughout the year. The allowance in the previous sentence applies in each State beginning 1 year after the stationary source is required to be in compliance with the applicable subpart in this part, or 1 year after the stationary source is required to be in compliance with the applicable part 40 CFR 61 or part 63 of this chapter standard, whichever is latest. Procedures governing the implementation of this provision are specified in paragraph (f) of this section.

(f)(1)(i) Until an adjustment of a time period or postmark deadline has been approved by the Administrator under paragraphs (f)(2) and (f)(3) of this section, the owner or operator of an affected facility remains strictly subject to the requirements of this part.

(f)(1)(ii) An owner or operator shall request the adjustment provided for in paragraphs (f)(2) and (f)(3) of this section each time he or she wishes to change an applicable time period or postmark deadline specified in this part.

(f)(2) Notwithstanding time periods or postmark deadlines specified in this part for the submittal of information to the Administrator by an owner or operator, or the review of such information by the Administrator, such time periods or deadlines may be changed by mutual agreement between the owner or operator and the Administrator. An owner or operator who wishes to request a change in a time period or postmark deadline for a particular requirement shall request the adjustment in writing as soon as practicable before the subject activity is required to take place. The owner or operator shall include in the request whatever information he or she considers useful to convince the Administrator that an adjustment is warranted.

(f)(3) If, in the Administrator's judgment, an owner or operator's request for an adjustment to a particular time period or postmark deadline is warranted, the Administrator will approve the adjustment. The Administrator will notify the owner or operator in writing of approval or disapproval of the request for an adjustment within 15 calendar days of receiving sufficient information to evaluate the request.

(f)(4) If the Administrator is unable to meet a specified deadline, he or she will notify the

owner or operator of any significant delay and inform the owner or operator of the amended schedule.

*The Smith Pond Generator is not subject to any notification or reporting requirements in 40 CFR 60.4214 so no provisions of 40 CFR 60.19 apply.*

#### **40 CFR 60 Subpart IIII-Standards of Performance For Stationary Compression Ignition Internal Combustion Engines**

##### **40 CFR §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.

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

(a)(1)(i) 2007 or later, for engines that are not fire pump engines;

(a)(1)(ii) The model year listed in Table 3 to this subpart or later model year, for fire pump engines.

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

(a)(2)(i) Manufactured after April 1, 2006, and are not fire pump engines, or

(a)(2)(ii) Manufactured as a certified National Fire Protection Association (NFPA) fire pump engine after July 1, 2006.

(a)(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.

(a)(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.

(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.

(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.

***The Smith Pond Generator has a new engine model year 2011 with a rating of 156.9 BHP and displacement of 1.1 liters/cylinder and therefore subject to the underlined requirements of 40 CFR 60 Subpart III.***

**40 CFR §60.4201 What Emission Standards Must I Meet For Non-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 non-emergency stationary CI ICE with a maximum engine power less than or equal to 2,237 kilowatt (KW) (3,000 horsepower (HP)) and a displacement of less than 10 liters per cylinder to the certification emission standards for new nonroad CI engines in 40 CFR 89.112, 40 CFR 89.113, 40 CFR 1039.101, 40 CFR 1039.102, 40 CFR 1039.104, 40 CFR 1039.105, 40 CFR 1039.107, and 40 CFR 1039.115, as applicable, for all pollutants, for the same model year and maximum engine power.

(b) Stationary CI internal combustion engine manufacturers must certify their 2007 through 2010 model year non-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 to the emission standards in table 1 to this subpart, for all pollutants, for the same maximum engine power.

(c) Stationary CI internal combustion engine manufacturers must certify their 2011 model year and later non-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 to the certification emission standards for new nonroad CI engines in 40 CFR 1039.101, 40 CFR 1039.102, 40 CFR 1039.104, 40 CFR 1039.105, 40 CFR 1039.107, and 40 CFR 1039.115, as applicable, for all pollutants, for the same maximum engine power.

(d) Stationary CI internal combustion engine manufacturers must certify the following non-emergency stationary CI ICE 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:

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

(d)(2) Their 2013 model year non-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; and

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

(e) Stationary CI internal combustion engine manufacturers must certify the following non-emergency stationary CI ICE to the certification emission standards and other requirements for new marine CI engines in 40 CFR 1042.101, 40 CFR 1042.107, 40 CFR 1042.110, 40 CFR 1042.115, 40 CFR 1042.120, and 40 CFR 1042.145, as applicable, for all pollutants, for the same displacement and maximum engine power:

(e)(1) Their 2013 model year non-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

(e)(2) Their 2014 model year and later non-emergency stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder.

(f) Notwithstanding the requirements in paragraphs (a) through (c) of this section, stationary non-emergency CI ICE identified in paragraphs (a) and (c) may be certified to the provisions of 40 CFR part 94 or, if Table 1 to 40 CFR 1042.1 identifies 40 CFR part 1042 as being applicable, 40 CFR part 1042, if the engines will be used solely in either or both of the following locations:

(f)(1) Areas of Alaska not accessible by the Federal Aid Highway System (FAHS); and

(f)(2) Marine offshore installations.

(g) 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 (e) of this section that are applicable to the model year, maximum engine power, and displacement of the reconstructed stationary CI ICE.

***P4 is not a CI internal combustion engine manufacturer and therefore, not subject to the requirements in this subsection.***

**40 CFR §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.

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

(a)(1)(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

(a)(1)(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.

(a)(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.

(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.

(b)(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.

(b)(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:

(e)(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;

(e)(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;

(e)(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

(e)(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:

(f)(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

(f)(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:

(g)(1) Areas of Alaska not accessible by the FAHS; and

(g)(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.

*P4 is not a CI internal combustion engine manufacturer and therefore, not subject to the requirements in this subsection.*

**40 CFR §60.4203 How Long Must My Engines Meet The Emission Standards If I Am A Manufacturer Of Stationary CI Internal Combustion Engines?**

Engines manufactured by stationary CI internal combustion engine manufacturers must meet the emission standards as required in §§60.4201 and 60.4202 during the certified emissions life of the engines.

*P4 is not a CI internal combustion engine manufacturer and therefore, not subject to the requirements in this subsection.*

**40 CFR §60.4204 What Emission Standards Must I Meet For Non-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 non-emergency stationary CI ICE with a displacement of less than 10 liters per cylinder must comply with the emission standards in table 1 to this subpart. Owners and operators of pre-2007 model year non-emergency stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder must comply with the emission standards in 40 CFR 94.8(a)(1).

(b) Owners and operators of 2007 model year and later non-emergency stationary CI ICE with a displacement of less than 30 liters per cylinder must comply with the emission standards for new CI engines in §60.4201 for their 2007 model year and later stationary CI ICE, as applicable.

(c) Owners and operators of non-emergency stationary CI engines with a displacement of greater than or equal to 30 liters per cylinder must meet the following requirements:

(c)(1) For engines installed prior to January 1, 2012, limit the emissions of NO<sub>x</sub> in the stationary CI internal combustion engine exhaust to the following:

(c)(1)(i) 17.0 grams per kilowatt-hour (g/KW-hr) (12.7 grams per horsepower-hr (g/HP-hr)) when maximum engine speed is less than 130 revolutions per minute (rpm);

(c)(1)(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

(c)(1)(iii) 9.8 g/KW-hr (7.3 g/HP-hr) when maximum engine speed is 2,000 rpm or more.

(c)(2) For engines installed on or after January 1, 2012 and before January 1, 2016, limit the emissions of NO<sub>x</sub> in the stationary CI internal combustion engine exhaust to the following:

(c)(2)(i) 14.4 g/KW-hr (10.7 g/HP-hr) when maximum engine speed is less than 130 rpm;

(c)(2)(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

(c)(2)(iii) 7.7 g/KW-hr (5.7 g/HP-hr) when maximum engine speed is greater than or equal to 2,000 rpm.

(c)(3) For engines installed on or after January 1, 2016, limit the emissions of NO<sub>x</sub> in the stationary CI internal combustion engine exhaust to the following:

(c)(3)(i) 3.4 g/KW-hr (2.5 g/HP-hr) when maximum engine speed is less than 130 rpm;

(c)(3)(ii)  $9.0 \cdot n - 0.20$  g/KW-hr ( $6.7 \cdot n - 0.20$  g/HP-hr) where n (maximum engine speed) is 130 or more but less than 2,000 rpm; and

(c)(3)(iii) 2.0 g/KW-hr (1.5 g/HP-hr) where maximum engine speed is greater than or equal to 2,000 rpm.

(c)(4) Reduce particulate matter (PM) emissions by 60 percent or more, or limit the emissions of PM in the stationary CI internal combustion engine exhaust to 0.15 g/KW-hr (0.11 g/HP-hr).

(d) Owners and operators of non-emergency stationary CI ICE with a displacement of less than 30 liters per cylinder who conduct performance tests in-use must meet the not-to-exceed (NTE) standards as indicated in §60.4212.

(e) Owners and operators of any modified or reconstructed non-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 non-emergency stationary CI ICE that are specified in paragraphs (a) through (d) of this section.

***P4 does not conduct performance tests in-use and the Smith Pond Generator has a new engine model year 2011 that is not modified or reconstructed with a rating of 156.9 BHP and displacements of less than 30 liters per cylinder, therefore the generator is not subject to any emission limitations.***

#### **40 CFR §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.

(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.

(d)(1) For engines installed prior to January 1, 2012, limit the emissions of NO<sub>x</sub> in the stationary CI internal combustion engine exhaust to the following:

(d)(1)(i) 17.0 g/KW-hr (12.7 g/HP-hr) when maximum engine speed is less than 130 rpm;

(d)(1)(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

(d)(1)(iii) 9.8 g/kW-hr (7.3 g/HP-hr) when maximum engine speed is 2,000 rpm or more.

(d)(2) For engines installed on or after January 1, 2012, limit the emissions of NO<sub>x</sub> in the stationary CI internal combustion engine exhaust to the following:

(d)(2)(i) 14.4 g/KW-hr (10.7 g/HP-hr) when maximum engine speed is less than 130 rpm;

(d)(2)(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

(d)(2)(iii) 7.7 g/KW-hr (5.7 g/HP-hr) when maximum engine speed is greater than or equal to 2,000 rpm.

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

(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.

*The Smith Pond Generator will not be operated as an emergency generator and therefore, is not subject to the provisions of this subsection.*

**40 CFR §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.

*As described in 40 CFR 60.4204 or 40 CFR 60.4205 above, the Smith Pond Generator is not subject to any emission limitations and therefore, not subject to the provisions of this subsection.*

**40 CFR §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 purchase diesel fuel that meets the requirements of 40 CFR 80.510(b) for nonroad diesel fuel. EFFECTIVE DATE NOTE: This change becomes effective April 1, 2013.

(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.

(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.

*In accordance with 40 CFR 80.510(b), P4 will purchase and use diesel fuel that meets the requirements for nonroad diesel fuel.*

**40 CFR §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.

(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.

(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.

***The Smith Pond Generator has a new engine model year 2011 with a rating of 156.9 BHP and displacement of 1.1 liters/cylinder. This engine meets the applicable***

*requirements for a 2007 model year engine and is of a HP size that is small enough to not be subject to the limitations of (e).*

**40 CFR §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.

(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.

*The Smith Pond Generator is not an emergency stationary CI internal combustion engine and is not equipped with a diesel particulate filter and therefore, not subject to the provisions of this subsection.*

**40 CFR §60.4210 What Are My Compliance Requirements If I Am A Stationary CI Internal Combustion Engine Manufacturer?**

(a) Stationary CI internal combustion engine manufacturers must certify their stationary CI ICE with a displacement of less than 10 liters per cylinder to the emission standards specified in §60.4201(a) through (c) and §60.4202(a), (b) and (d) using the certification procedures required in 40 CFR part 89, subpart B, or 40 CFR part 1039, subpart C, as applicable, and must test their engines as specified in those parts. For the purposes of this subpart, engines certified to the standards in table 1 to this subpart shall be subject to the same requirements as engines certified to the standards in 40 CFR part 89. For the purposes of this subpart, engines certified to the standards in table 4 to this subpart shall be subject to the same requirements as engines certified to the standards in 40 CFR part 89, except that engines with NFPA nameplate power of less than 37 KW (50 HP) certified to model year 2011 or later standards shall be subject to the same requirements as engines certified to the standards in 40 CFR part 1039.

(b) Stationary CI internal combustion engine manufacturers must certify their stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder to the emission standards specified in §60.4201(d) and (e) and §60.4202(e) and (f) using the certification procedures required in 40 CFR part 94, subpart C, or 40 CFR part 1042, subpart C, as applicable, and must test their engines as specified in 40 CFR part 94 or 1042, as applicable.

(c) Stationary CI internal combustion engine manufacturers must meet the requirements of 40 CFR 1039.120, 1039.125, 1039.130, and 1039.135, and 40 CFR part 1068 for engines

that are certified to the emission standards in 40 CFR part 1039. Stationary CI internal combustion engine manufacturers must meet the corresponding provisions of 40 CFR part 89, 40 CFR part 94 or 40 CFR part 1042 for engines that would be covered by that part if they were nonroad (including marine) engines. Labels on such engines must refer to stationary engines, rather than or in addition to nonroad or marine engines, as appropriate. Stationary CI internal combustion engine manufacturers must label their engines according to paragraphs (c)(1) through (3) of this section.

(c)(1) Stationary CI internal combustion engines manufactured from January 1, 2006 to March 31, 2006 (January 1, 2006 to June 30, 2006 for fire pump engines), other than those that are part of certified engine families under the nonroad CI engine regulations, must be labeled according to 40 CFR 1039.20.

(c)(2) Stationary CI internal combustion engines manufactured from April 1, 2006 to December 31, 2006 (or, for fire pump engines, July 1, 2006 to December 31 of the year preceding the year listed in table 3 to this subpart) must be labeled according to paragraphs (c)(2)(i) through (iii) of this section:

(c)(2)(i) Stationary CI internal combustion engines that are part of certified engine families under the nonroad regulations must meet the labeling requirements for nonroad CI engines, but do not have to meet the labeling requirements in 40 CFR 1039.20.

(c)(2)(ii) Stationary CI internal combustion engines that meet Tier 1 requirements (or requirements for fire pumps) under this subpart, but do not meet the requirements applicable to nonroad CI engines must be labeled according to 40 CFR 1039.20. The engine manufacturer may add language to the label clarifying that the engine meets Tier 1 requirements (or requirements for fire pumps) of this subpart.

(c)(2)(iii) Stationary CI internal combustion engines manufactured after April 1, 2006 that do not meet Tier 1 requirements of this subpart, or fire pumps engines manufactured after July 1, 2006 that do not meet the requirements for fire pumps under this subpart, may not be used in the U.S. If any such engines are manufactured in the U.S. after April 1, 2006 (July 1, 2006 for fire pump engines), they must be exported or must be brought into compliance with the appropriate standards prior to initial operation. The export provisions of 40 CFR 1068.230 would apply to engines for export and the manufacturers must label such engines according to 40 CFR 1068.230.

(c)(3) Stationary CI internal combustion engines manufactured after January 1, 2007 (for fire pump engines, after January 1 of the year listed in table 3 to this subpart, as applicable) must be labeled according to paragraphs (c)(3)(i) through (iii) of this section.

(c)(3)(i) Stationary CI internal combustion engines that meet the requirements of this subpart and the corresponding requirements for nonroad (including marine) engines of the same model year and HP must be labeled according to the provisions in 40 CFR parts 89, 94, 1039 or 1042, as appropriate.

(c)(3)(ii) Stationary CI internal combustion engines that meet the requirements of this subpart, but are not certified to the standards applicable to nonroad (including marine)

engines of the same model year and HP must be labeled according to the provisions in 40 CFR parts 89, 94, 1039 or 1042, as appropriate, but the words "stationary" must be included instead of "nonroad" or "marine" on the label. In addition, such engines must be labeled according to 40 CFR 1039.20.

(c)(3)(iii) Stationary CI internal combustion engines that do not meet the requirements of this subpart must be labeled according to 40 CFR 1068.230 and must be exported under the provisions of 40 CFR 1068.230.

(d) An engine manufacturer certifying an engine family or families to standards under this subpart that are identical to standards applicable under 40 CFR parts 89, 94, 1039 or 1042 for that model year may certify any such family that contains both nonroad (including marine) and stationary engines as a single engine family and/or may include any such family containing stationary engines in the averaging, banking and trading provisions applicable for such engines under those parts.

(e) Manufacturers of engine families discussed in paragraph (d) of this section may meet the labeling requirements referred to in paragraph (c) of this section for stationary CI ICE by either adding a separate label containing the information required in paragraph (c) of this section or by adding the words "and stationary" after the word "nonroad" or "marine," as appropriate, to the label.

(f) Starting with the model years shown in table 5 to this subpart, stationary CI internal combustion engine manufacturers must add a permanent label stating that the engine is for stationary emergency use only to each new emergency stationary CI internal combustion engine greater than or equal to 19 KW (25 HP) that meets all the emission standards for emergency engines in §60.4202 but does not meet all the emission standards for non-emergency engines in §60.4201. The label must be added according to the labeling requirements specified in 40 CFR 1039.135(b). Engine manufacturers must specify in the owner's manual that operation of emergency engines is limited to emergency operations and required maintenance and testing.

(g) Manufacturers of fire pump engines may use the test cycle in table 6 to this subpart for testing fire pump engines and may test at the NFPA certified nameplate HP, provided that the engine is labeled as "Fire Pump Applications Only".

(h) Engine manufacturers, including importers, may introduce into commerce uncertified engines or engines certified to earlier standards that were manufactured before the new or changed standards took effect until inventories are depleted, as long as such engines are part of normal inventory. For example, if the engine manufacturers' normal industry practice is to keep on hand a one-month supply of engines based on its projected sales, and a new tier of standards starts to apply for the 2009 model year, the engine manufacturer may manufacture engines based on the normal inventory requirements late in the 2008 model year, and sell those engines for installation. The engine manufacturer may not circumvent the provisions of §§60.4201 or 60.4202 by stockpiling engines that are built before new or changed standards take effect. Stockpiling of such engines beyond normal industry practice is a violation of this subpart.

- (i) The replacement engine provisions of 40 CFR 89.1003(b)(7), 40 CFR 94.1103(b)(3), 40 CFR 94.1103(b)(4) and 40 CFR 1068.240 are applicable to stationary CI engines replacing existing equipment that is less than 15 years old.

*P4 is not a CI internal combustion engine manufacturer and therefore, not subject to the requirements in this subsection.*

**40 CFR §60.4211 What Are My Compliance Requirements If I Am An Owner Or Operator Of A Stationary CI Internal Combustion Engine?**

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EDITORIAL NOTE: Changes have been made to this section according to a final rule published in the Federal Register. The original version of the changed text is followed by effective date information and the revised version, both of which are presented in red.

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(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:

(a)(1) Operate and maintain the stationary CI internal combustion engine and control device according to the manufacturer's emission-related written instructions;

(a)(2) Change only those emission-related settings that are permitted by the manufacturer; and

(a)(3) Meet the requirements of 40 CFR parts 89, 94 and/or 1068, as they apply to you.

(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.

(b)(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.

(b)(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.

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

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

(b)(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.

(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.

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

(d)(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.

(d)(2)(i) Identification of the specific parameters you propose to monitor continuously;

(d)(2)(ii) A discussion of the relationship between these parameters and NOX 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 NOX and PM emissions;

(d)(2)(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;

(d)(2)(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

(d)(2)(v) A discussion identifying the frequency and methods for recalibrating the instruments you will use for monitoring these parameters.

(d)(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.

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

(e)(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) Emergency stationary ICE may be operated 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. There is no time limit on the use of emergency stationary ICE in emergency situations. 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 year. Emergency stationary ICE may operate 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 non-emergency power as part of a financial arrangement with another entity. For owners and operators of emergency engines, any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, as permitted in this section, is prohibited.

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 EFFECTIVE DATE NOTE: This change becomes effective April 1, 2013.

(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.

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

(f)(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).

(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.

(f)(2)(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.

(f)(2)(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.

(f)(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 nonemergency 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.

(f)(3)(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:

(f)(3)(i)(A) The engine is dispatched by the local balancing authority or local transmission and distribution system operator;

(f)(3)(i)(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.

(f)(3)(i)(C) The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines.

(f)(3)(i)(D) The power is provided only to the facility itself or to support the local transmission and distribution system.

(f)(3)(i)(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.

(f)(3)(ii) [Reserved]

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(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:

(g)(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.

(g)(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.

(g)(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.

*As described in 40 CFR 60.4204 or 40 CFR 60.4205 above, the Smith Pond Generator is not subject to any emission limitations and therefore, not subject to the provisions of this subsection.*

**40 CFR §60.4212 What Test Methods And Other Procedures Must I Use If I Am An Owner Or Operator Of A Stationary CI Internal Combustion Engine With A Displacement Of Less Than 30 Liters Per Cylinder?**

Owners and operators of stationary CI ICE with a displacement of less than 30 liters per cylinder who conduct performance tests pursuant to this subpart must do so according to paragraphs (a) through (e) of this section.

(a) The performance test must be conducted according to the in-use testing procedures in 40 CFR part 1039, subpart F, for stationary CI ICE with a displacement of less than 10 liters per cylinder, and according to 40 CFR part 1042, subpart F, for stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder.

(b) Exhaust emissions from stationary CI ICE that are complying with the emission standards for new CI engines in 40 CFR part 1039 must not exceed the not-to-exceed (NTE) standards for the same model year and maximum engine power as required in 40 CFR 1039.101(e) and 40 CFR 1039.102(g)(1), except as specified in 40 CFR 1039.104(d). This requirement starts when NTE requirements take effect for nonroad diesel engines under 40 CFR part 1039.

(c) Exhaust emissions from stationary CI ICE that are complying with the emission standards for new CI engines in 40 CFR 89.112 or 40 CFR 94.8, as applicable, must not exceed the NTE numerical requirements, rounded to the same number of decimal places as the applicable standard in 40 CFR 89.112 or 40 CFR 94.8, as applicable, determined from the following equation:

Where:

STD = The standard specified for that pollutant in 40 CFR 89.112 or 40 CFR 94.8, as applicable.

Alternatively, stationary CI ICE that are complying with the emission standards for new CI engines in 40 CFR 89.112 or 40 CFR 94.8 may follow the testing procedures specified

in §60.4213 of this subpart, as appropriate.

(d) Exhaust emissions from stationary CI ICE that are complying with the emission standards for pre-2007 model year engines in §60.4204(a), §60.4205(a), or §60.4205(c) must not exceed the NTE numerical requirements, rounded to the same number of decimal places as the applicable standard in §60.4204(a), §60.4205(a), or §60.4205(c), determined from the equation in paragraph (c) of this section.

Where:

STD = The standard specified for that pollutant in §60.4204(a), §60.4205(a), or §60.4205(c).

Alternatively, stationary CI ICE that are complying with the emission standards for pre-2007 model year engines in §60.4204(a), §60.4205(a), or §60.4205(c) may follow the testing procedures specified in §60.4213, as appropriate.

(e) Exhaust emissions from stationary CI ICE that are complying with the emission standards for new CI engines in 40 CFR part 1042 must not exceed the NTE standards for the same model year and maximum engine power as required in 40 CFR 1042.101(c).

*As described in 40 CFR 60.4204 or 40 CFR 60.4205 above, the Smith Pond Generator is not subject to any emission limitations nor testing requirements and therefore, not subject to the provisions of this subsection.*

**40 CFR §60.4213 What Test Methods And Other Procedures Must I Use If I Am An Owner Or Operator Of A Stationary CI Internal Combustion Engine With A Displacement Of Greater Than Or Equal To 30 Liters Per Cylinder?**

Owners and operators of stationary CI ICE with a displacement of greater than or equal to 30 liters per cylinder must conduct performance tests according to paragraphs (a) through (f) of this section.

(a) Each performance test must be conducted according to the requirements in §60.8 and under the specific conditions that this subpart specifies in table 7. The test must be conducted within 10 percent of 100 percent peak (or the highest achievable) load.

(b) You may not conduct performance tests during periods of startup, shutdown, or malfunction, as specified in §60.8(c).

(c) You must conduct three separate test runs for each performance test required in this section, as specified in §60.8(f). Each test run must last at least 1 hour.

(d) To determine compliance with the percent reduction requirement, you must follow the requirements as specified in paragraphs (d)(1) through (3) of this section.

(d)(1) You must use Equation 2 of this section to determine compliance with the percent

reduction requirement:

Where:

$C_i$  = concentration of NOX or PM at the control device inlet,

$C_o$  = concentration of NOX or PM at the control device outlet, and

$R$  = percent reduction of NOX or PM emissions.

(d)(2) You must normalize the NOX or PM concentrations at the inlet and outlet of the control device to a dry basis and to 15 percent oxygen (O<sub>2</sub>) using Equation 3 of this section, or an equivalent percent carbon dioxide (CO<sub>2</sub>) using the procedures described in paragraph (d)(3) of this section.

Where:

$C_{adj}$  = Calculated NOX or PM concentration adjusted to 15 percent O<sub>2</sub>.

$C_d$  = Measured concentration of NOX or PM, uncorrected.

$5.9 = 20.9 \text{ percent O}_2 - 15 \text{ percent O}_2$ , the defined O<sub>2</sub> correction value, percent.

$\%O_2$  = Measured O<sub>2</sub> concentration, dry basis, percent.

(d)(3) If pollutant concentrations are to be corrected to 15 percent O<sub>2</sub> and CO<sub>2</sub> concentration is measured in lieu of O<sub>2</sub> concentration measurement, a CO<sub>2</sub> correction factor is needed. Calculate the CO<sub>2</sub> correction factor as described in paragraphs (d)(3)(i) through (iii) of this section.

(d)(3)(i) Calculate the fuel-specific  $F_o$  value for the fuel burned during the test using values obtained from Method 19, Section 5.2, and the following equation:

Where:

$F_o$  = Fuel factor based on the ratio of O<sub>2</sub> volume to the ultimate CO<sub>2</sub> volume produced by the fuel at zero percent excess air.

$0.209$  = Fraction of air that is O<sub>2</sub>, percent/100.

$F_d$  = Ratio of the volume of dry effluent gas to the gross calorific value of the fuel from Method 19, dsm<sup>3</sup>/J (dscf/106 Btu).

$F_c$  = Ratio of the volume of CO<sub>2</sub> produced to the gross calorific value of the fuel from Method 19, dsm<sup>3</sup>/J (dscf/106 Btu).

(d)(3)(ii) Calculate the CO<sub>2</sub> correction factor for correcting measurement data to 15 percent O<sub>2</sub>, as follows:

Where:

$X_{CO2}$  = CO<sub>2</sub> correction factor, percent.

5.9 = 20.9 percent O<sub>2</sub> - 15 percent O<sub>2</sub>, the defined O<sub>2</sub> correction value, percent.

(d)(3)(iii) Calculate the NO<sub>X</sub> and PM gas concentrations adjusted to 15 percent O<sub>2</sub> using CO<sub>2</sub> as follows:

Where:

$C_{adj}$  = Calculated NO<sub>X</sub> or PM concentration adjusted to 15 percent O<sub>2</sub>.

$C_d$  = Measured concentration of NO<sub>X</sub> or PM, uncorrected.

%CO<sub>2</sub> = Measured CO<sub>2</sub> concentration, dry basis, percent.

(e) To determine compliance with the NO<sub>X</sub> mass per unit output emission limitation, convert the concentration of NO<sub>X</sub> in the engine exhaust using Equation 7 of this section:

Where:

ER = Emission rate in grams per KW-hour.

$C_d$  = Measured NO<sub>X</sub> concentration in ppm.

$1.912 \times 10^{-3}$  = Conversion constant for ppm NO<sub>X</sub> to grams per standard cubic meter at 25 degrees Celsius.

Q = Stack gas volumetric flow rate, in standard cubic meter per hour.

T = Time of test run, in hours.

KW-hour = Brake work of the engine, in KW-hour.

(f) To determine compliance with the PM mass per unit output emission limitation, convert the concentration of PM in the engine exhaust using Equation 8 of this section:

Where:

ER = Emission rate in grams per KW-hour.

$C_{adj}$  = Calculated PM concentration in grams per standard cubic meter.

Q = Stack gas volumetric flow rate, in standard cubic meter per hour.

T = Time of test run, in hours.

KW-hour = Energy output of the engine, in KW.

*As described in 40 CFR 60.4204 or 40 CFR 60.4205 above, the Smith Pond Generator is not subject to any emission limitations or testing requirement and therefore, not subject to the provisions of this subsection.*

**40 CFR §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.

(a)(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.

(a)(1)(i) Name and address of the owner or operator;

(a)(1)(ii) The address of the affected source;

(a)(1)(iii) Engine information including make, model, engine family, serial number, model year, maximum engine power, and engine displacement;

(a)(1)(iv) Emission control equipment; and

(a)(1)(v) Fuel used.

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

(a)(2)(i) All notifications submitted to comply with this subpart and all documentation supporting any notification.

(a)(2)(ii) Maintenance conducted on the engine.

(a)(2)(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.

(a)(2)(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.

(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.

*The Smith Pond Generator has a new engine model year 2011 with a rating of 156.9 BHP and displacement of 1.1 liters/cylinder which is not equipped with a diesel particulate filter and is not an emergency engine and therefore, is not subject to any requirements in 40 CFR §60.4214.*

**40 CFR §60.4215 What Requirements Must I Meet For Engines Used In Guam, American Samoa, Or The Commonwealth Of The Northern Mariana Islands?**

(a) Stationary CI ICE with a displacement of less than 30 liters per cylinder that are used in Guam, American Samoa, or the Commonwealth of the Northern Mariana Islands are required to meet the applicable emission standards in §§60.4202 and 60.4205.

(b) Stationary CI ICE that are used in Guam, American Samoa, or the Commonwealth of the Northern Mariana Islands are not required to meet the fuel requirements in §60.4207.

(c) Stationary CI ICE with a displacement of greater than or equal to 30 liters per cylinder that are used in Guam, American Samoa, or the Commonwealth of the Northern Mariana Islands are required to meet the following emission standards:

(c)(1) For engines installed prior to January 1, 2012, limit the emissions of NO<sub>x</sub> in the stationary CI internal combustion engine exhaust to the following:

(c)(1)(i) 17.0 g/KW-hr (12.7 g/HP-hr) when maximum engine speed is less than 130 rpm;

(c)(1)(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

(c)(1)(iii) 9.8 g/KW-hr (7.3 g/HP-hr) when maximum engine speed is 2,000 rpm or more.

(c)(2) For engines installed on or after January 1, 2012, limit the emissions of NO<sub>x</sub> in the stationary CI internal combustion engine exhaust to the following:

(c)(2)(i) 14.4 g/KW-hr (10.7 g/HP-hr) when maximum engine speed is less than 130 rpm;

(c)(2)(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

(c)(2)(iii) 7.7 g/KW-hr (5.7 g/HP-hr) when maximum engine speed is greater than or equal

to 2,000 rpm.

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

***P4 will only operate the Smith Pond Generator near Soda Springs, Idaho and therefore, the provisions of this subpart are not applicable.***

#### **40 CFR §60.4216 What Requirements Must I Meet For Engines Used In Alaska?**

(a) Prior to December 1, 2010, owners and operators of stationary CI ICE with a displacement of less than 30 liters per cylinder located in areas of Alaska not accessible by the FAHS should refer to 40 CFR part 69 to determine the diesel fuel requirements applicable to such engines.

(b) Except as indicated in paragraph (c) of this section, manufacturers, owners and operators of stationary CI ICE with a displacement of less than 10 liters per cylinder located in areas of Alaska not accessible by the FAHS may meet the requirements of this subpart by manufacturing and installing engines meeting the requirements of 40 CFR parts 94 or 1042, as appropriate, rather than the otherwise applicable requirements of 40 CFR parts 89 and 1039, as indicated in sections §§60.4201(f) and 60.4202(g) of this subpart.

(c) Manufacturers, owners and operators of stationary CI ICE that are located in areas of Alaska not accessible by the FAHS may choose to meet the applicable emission standards for emergency engines in §60.4202 and §60.4205, and not those for non-emergency engines in §60.4201 and §60.4204, except that for 2014 model year and later non-emergency CI ICE, the owner or operator of any such engine that was not certified as meeting Tier 4 PM standards, must meet the applicable requirements for PM in §60.4201 and §60.4204 or install a PM emission control device that achieves PM emission reductions of 85 percent, or 60 percent for engines with a displacement of greater than or equal to 30 liters per cylinder, compared to engine-out emissions.

(d) The provisions of §60.4207 do not apply to owners and operators of pre-2014 model year stationary CI ICE subject to this subpart that are located in areas of Alaska not accessible by the FAHS.

(e) The provisions of §60.4208(a) do not apply to owners and operators of stationary CI ICE subject to this subpart that are located in areas of Alaska not accessible by the FAHS until after December 31, 2009.

(f) The provisions of this section and §60.4207 do not prevent owners and operators of stationary CI ICE subject to this subpart that are located in areas of Alaska not accessible by the FAHS from using fuels mixed with used lubricating oil, in volumes of up to 1.75 percent of the total fuel. The sulfur content of the used lubricating oil must be less than 200 parts per million. The used lubricating oil must meet the on specification levels and properties for used oil in 40 CFR 279.11.

***P4 will only operate the Smith Pond Generator near Soda Springs, Idaho and therefore,***

*the provisions of this subpart are not applicable.*

**40 CFR §60.4217 What Emission Standards Must I Meet If I Am An Owner Or Operator Of A Stationary Internal Combustion Engine Using Special Fuels?**

Owners and operators of stationary CI ICE that do not use diesel fuel may petition the Administrator for approval of alternative emission standards, if they can demonstrate that they use a fuel that is not the fuel on which the manufacturer of the engine certified the engine and that the engine cannot meet the applicable standards required in §60.4204 or §60.4205 using such fuels and that use of such fuel is appropriate and reasonably necessary, considering cost, energy, technical feasibility, human health and environmental, and other factors, for the operation of the engine.

*In accordance with 40 CFR 80.510(b), P4 will purchase and use diesel fuel that meets the requirements for nonroad diesel fuel only and therefore the provisions of this subpart related to special fuels is not applicable.*

**40 CFR §60.4218 What Parts Of The General Provisions Apply To Me?**

Table 8 to this subpart shows which parts of the General Provisions in §§60.1 through 60.19 apply to you.

*P4 is providing detailed applicability information on the provisions of 40 CFR 60 Subpart A earlier in this document.*

**40 CFR §60.4219 What Definitions Apply To This Subpart?**

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EDITORIAL NOTE: Changes have been made to this section according to a final rule published in the Federal Register. The original version of the changed text is followed by effective date information and the revised version, both of which are presented in red.

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As used in this subpart, all terms not defined herein shall have the meaning given them in the CAA and in Subpart A of this part.

Certified emissions life means the period during which the engine is designed to properly function in terms of reliability and fuel consumption, without being remanufactured, specified as a number of hours of operation or calendar years, whichever comes first. The values for certified emissions life for stationary CI ICE with a displacement of less than 10 liters per cylinder are given in 40 CFR 1039.101(g). The values for certified emissions life for stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder are given in 40 CFR 94.9(a).

Combustion turbine means all equipment, including but not limited to the turbine, the fuel,

air, lubrication and exhaust gas systems, control systems (except emissions control equipment), and any ancillary components and sub-components comprising any simple cycle combustion turbine, any regenerative/recuperative cycle combustion turbine, the combustion turbine portion of any cogeneration cycle combustion system, or the combustion turbine portion of any combined cycle steam/electric generating system.

Compression ignition means relating to a type of stationary internal combustion engine that is not a spark ignition engine.

Date of manufacture means one of the following things:

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

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

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

Diesel fuel means any liquid obtained from the distillation of petroleum with a boiling point of approximately 150 to 360 degrees Celsius. One commonly used form is number 2 distillate oil.

Diesel particulate filter means an emission control technology that reduces PM emissions by trapping the particles in a flow filter substrate and periodically removes the collected particles by either physical action or by oxidizing (burning off) the particles in a process called regeneration.

Emergency stationary internal combustion engine means any stationary internal combustion engine whose operation is limited to emergency situations and required testing and maintenance. Examples include stationary ICE used to produce power for critical networks or equipment (including power supplied to portions of a facility) when electric power from the local utility (or the normal power source, if the facility runs on its own power production) is interrupted, or stationary ICE used to pump water in the case of fire or flood, etc. Stationary CI ICE used to supply power to an electric grid or that supply power as part of a financial arrangement with another entity are not considered to be emergency engines.

***The Smith Pond Generator has a new engine model year 2011 with a rating of 156.9 BHP and displacement of 1.1 liters/cylinder which is not equipped with a diesel particulate filter and is not an emergency engine, therefore is subject to the definitions underlined above in 40 CFR §60.4219.***

**40 CFR 63 Subpart ZZZZ****40 CFR §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.

**40 CFR §63.6585 Am I Subject To This Subpart?**

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 EDITORIAL NOTE: Changes have been made to this section according to a final rule published in the Federal Register. The original version of the changed text is followed by effective date information and the revised version, both of which are presented in red.  
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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.

(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.

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 EFFECTIVE DATE NOTE: This change becomes effective April 1, 2013.

(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).

(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).

(f)(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).

(f)(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).

***The Smith Pond Generator has a new engine with a rating of 156.9 BHP and displacement of 1.1 liters/cylinder. In accordance with 40 CFR 63.6590(c), the engine must meet the requirements of 40 CFR 60 Subpart IIII and is not subject to any other provisions of 40 CFR 63 Subpart ZZZZ.***

**40 CFR §63.6590 What Parts Of My Plant Does This Subpart Cover?**

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EDITORIAL NOTE: Changes have been made to this section according to a final rule published in the Federal Register. The original version of the changed text is followed by effective date information and the revised version, both of which are presented in red.

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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.

(a)(1) Existing stationary RICE.

(a)(1)(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.

(a)(1)(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.

(a)(1)(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.

(a)(1)(iv) A change in ownership of an existing stationary RICE does not make that stationary RICE a new or reconstructed stationary RICE.

(a)(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.

(a)(2)(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.

(a)(2)(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.

(a)(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.

(a)(3)(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.

(a)(3)(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).

(b)(1)(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.

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EFFECTIVE DATE NOTE: This change becomes effective April 1, 2013.

(b)(1)(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).

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(b)(1)(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.

(b)(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.

(b)(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:

(b)(3)(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;

(b)(3)(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;

(b)(3)(iii) Existing emergency stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions;

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EFFECTIVE DATE NOTE: This change becomes effective April 1, 2013.

(b)(3)(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).

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(b)(3)(iv) Existing limited use stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions;

(b)(3)(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;

(b)(3)(vi) Existing residential emergency stationary RICE located at an area source of HAP emissions;

(b)(3)(vii) Existing commercial emergency stationary RICE located at an area source of HAP emissions; or

(b)(3)(viii) Existing institutional emergency stationary RICE located at an area source of HAP emissions.

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EFFECTIVE DATE NOTE: This change becomes effective April 1, 2013.

(b)(3)(iv) through (b)(3)(viii) removed.

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(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.

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

(c)(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;

(c)(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;

(c)(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;

(c)(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;

(c)(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;

(c)(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.

***The Smith Pond Generator has a new engine with a rating of 156.9 BHP and displacement of 1.1 liters/cylinder and therefore, must meet the requirements of 40 CFR 60 Subpart IIII.***

**40 CFR §63.6595 When Do I Have To Comply With This Subpart?**

**EDITORIAL NOTE: Changes have been made to this section according to a final rule published in the Federal Register. The original version of the changed text is followed by effective date information and the revised version, both of which are presented in red.**

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(a) Affected Sources. (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.

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**EFFECTIVE DATE NOTE: This change becomes effective April 1, 2013.**

(a) Affected Sources. (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, operating limitations and other requirements 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, operating limitations, and other requirements 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, operating limitations, and other requirements no later than October 19, 2013.

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(a)(2) If you start up your new or reconstructed stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions before August 16, 2004, you must comply with the applicable emission limitations and operating limitations in this subpart no later than August 16, 2004.

(a)(3) If you start up your new or reconstructed stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions after August 16, 2004, you must comply with the applicable emission limitations and operating limitations in this subpart upon startup of your affected source.

(a)(4) If you start up your 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 before January

18, 2008, you must comply with the applicable emission limitations and operating limitations in this subpart no later than January 18, 2008.

(a)(5) If you start up your 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 after January 18, 2008, you must comply with the applicable emission limitations and operating limitations in this subpart upon startup of your affected source.

(a)(6) If you start up your new or reconstructed stationary RICE located at an area source of HAP emissions before January 18, 2008, you must comply with the applicable emission limitations and operating limitations in this subpart no later than January 18, 2008.

(a)(7) If you start up your new or reconstructed stationary RICE located at an area source of HAP emissions after January 18, 2008, you must comply with the applicable emission limitations and operating limitations in this subpart upon startup of your affected source.

(b) *Area sources that become major sources.* If you have an area source that increases its emissions or its potential to emit such that it becomes a major source of HAP, the compliance dates in paragraphs (b)(1) and (2) of this section apply to you.

(b)(1) Any stationary RICE for which construction or reconstruction is commenced after the date when your area source becomes a major source of HAP must be in compliance with this subpart upon startup of your affected source.

(b)(2) Any stationary RICE for which construction or reconstruction is commenced before your area source becomes a major source of HAP must be in compliance with the provisions of this subpart that are applicable to RICE located at major sources within 3 years after your area source becomes a major source of HAP.

(c) If you own or operate an affected source, you must meet the applicable notification requirements in §63.6645 and in 40 CFR part 63, subpart A.

**40 CFR §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?**

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, new, or reconstructed spark ignition 4SRB 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 emission limitations in Table 1a to this subpart and the operating limitations in Table 1b to this subpart which apply to you.

(b) If you own or operate a new or reconstructed 2SLB stationary RICE with a site rating of more than 500 brake HP located at major source of HAP emissions, a new or reconstructed 4SLB stationary RICE with a site rating of more than 500 brake HP located at major source of HAP emissions, or a new or reconstructed 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 emission limitations in Table 2a to this subpart and the operating limitations in Table 2b to this subpart which apply to you.

(c) If you own or operate any of the following stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you do not need to comply with the emission limitations in Tables 1a, 2a, 2c, and 2d to this subpart or operating limitations in Tables 1b and 2b to this subpart: an existing 2SLB stationary RICE; an existing 4SLB stationary RICE; a stationary RICE that combusts landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis; an emergency stationary RICE; or a limited use stationary RICE.

(d) If you own or operate an existing non-emergency stationary CI RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you must comply with the emission limitations in Table 2c to this subpart and the operating limitations in Table 2b to this subpart which apply to you.

**40 CFR §63.6601 What Emission Limitations Must I Meet If I Own Or Operate A New Or Reconstructed 4SLB Stationary RICE With A Site Rating Of Greater Than Or Equal To 250 Brake HP And Less Than Or Equal To 500 Brake HP Located At A Major 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. If you own or operate a new or reconstructed 4SLB stationary RICE with a site rating of greater than or equal to 250 and less than or equal to 500 brake HP located at major source of HAP emissions manufactured on or after January 1, 2008, you must comply with the emission limitations in Table 2a to this subpart and the operating limitations in Table 2b to this subpart which apply to you.

*The Smith Pond Generator has a new engine with a rating of 156.9 BHP and displacement of 1.1 liters/cylinder. In accordance with 40 CFR 63.6590(c), the engine must meet the requirements of 40 CFR 60 Subpart IIII and is not subject to any other provisions of 40 CFR 63 Subpart ZZZZ.*

**40 CFR §63.6602 What Emission Limitations Must I Meet If I Own Or Operate An Existing Stationary RICE With A Site Rating Of Equal To Or Less Than 500 Brake HP Located At A Major Source Of HAP Emissions?**

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**EDITORIAL NOTE: Changes have been made to this section according to a final rule published in the Federal Register. The original version of the changed text is followed by effective date information and the revised version, both of which are presented in red.**

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If you own or operate an existing stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions, you must comply with the emission limitations in Table 2c to this subpart which apply to you. 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.

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**EFFECTIVE DATE NOTE:** This change becomes effective April 1, 2013.

**40 CFR §63.6602 What Emission Limitations And Other Requirements Must I Meet If I Own Or Operate An Existing Stationary RICE With A Site Rating Of Equal To Or Less Than 500 Brake HP Located At A Major Source Of HAP Emissions?**

If you own or operate an existing stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions, you must comply with the emission limitations and other requirements in Table 2c to this subpart which apply to you. 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.

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*The Smith Pond Generator has a new engine with a rating of 156.9 BHP and displacement of 1.1 liters/cylinder. In accordance with 40 CFR 63.6590(c), the engine must meet the requirements of 40 CFR 60 Subpart IIII and is not subject to any other provisions of 40 CFR 63 Subpart ZZZZ.*

**40 CFR §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?**

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**EFFECTIVE DATE NOTE:** This change becomes effective April 1, 2013.

40 CFR §63.6603 What Emission Limitations, Operating Limitations, And Other Requirements Must I Meet If I Own Or Operate An Existing Stationary RICE Located At An Area Source Of HAP Emissions?

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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 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 1b and Table 2b to this subpart that apply to you.

(b) If you own or operate an existing stationary non-emergency CI RICE greater than 300 HP located at area sources in areas of Alaska not accessible by the Federal Aid Highway System (FAHS) you do not have to meet the numerical CO emission limitations specified in Table 2d to this subpart. Existing stationary non-emergency CI RICE greater than 300 HP located at area sources in areas of Alaska not accessible by the FAHS must meet the management practices that are shown for stationary non-emergency CI RICE less than or equal to 300 HP in Table 2d to this subpart.

**EFFECTIVE DATE NOTE:** This change becomes effective April 1, 2013.

(a) If you own or operate an existing stationary 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 that apply to you.

(b) If you own or operate an existing stationary nonemergency CI RICE with a site rating of more than 300 HP located at an area source of HAP that meets either paragraph (b)(1) or (2) of this section, you do not have to meet the numerical CO emission limitations specified in Table 2d of this subpart. Existing stationary non-emergency CI RICE with a site rating of more than 300 HP located at an area source of HAP that meet either paragraph (b)(1) or (2) of this section must meet the management practices that are shown for stationary non-emergency CI RICE with a site rating of less than or equal to 300 HP in Table 2d of this subpart.

(b)(1) The area source is located in an area of Alaska that is not accessible by the Federal Aid Highway System (FAHS).

(b)(2) The stationary RICE is located at an area source that meets paragraphs (b)(2)(i), (ii), and (iii) of this section.

(b)(2)(i) The only connection to the FAHS is through the Alaska Marine Highway System (AMHS), or the stationary RICE operation is within an isolated grid in Alaska that is not connected to the statewide electrical grid referred to as the Alaska Railbelt Grid.

(b)(2)(ii) At least 10 percent of the power generated by the stationary RICE on an annual basis is used for residential purposes.

(b)(2)(iii) The generating capacity of the area source is less than 12 megawatts, or the stationary RICE is used exclusively for backup power for renewable energy.

(c) If you own or operate an existing stationary nonemergency CI RICE with a site rating of more than 300 HP located on an offshore vessel that is an area source of HAP and is a nonroad vehicle that is an Outer Continental Shelf (OCS) source as defined in 40 CFR 55.2, you do not have to meet the numerical CO emission limitations specified in Table 2d of this subpart. You must meet all of the following management practices:

(c)(1) Change oil every 1,000 hours of operation or annually, whichever comes first. Sources have the option to utilize an oil analysis program as described in §63.6625(i) in order to extend the specified oil change requirement.

(c)(2) Inspect and clean air filters every 750 hours of operation or annually, whichever comes first, and replace as necessary.

(c)(3) Inspect fuel filters and belts, if installed, every 750 hours of operation or annually, whichever comes first, and replace as necessary.

(c)(4) Inspect all flexible hoses every 1,000 hours of operation or annually, whichever comes first, and replace as necessary.

(d) If you own or operate an existing non-emergency CI RICE with a site rating of more than 300 HP located at an area source of HAP emissions that is certified to the Tier 1 or Tier 2 emission standards in Table 1 of 40 CFR 89.112 and that is subject to an enforceable state

or local standard that requires the engine to be replaced no later than June 1, 2018, you may until January 1, 2015, or 12 years after the installation date of the engine (whichever is later), but not later than June 1, 2018, choose to comply with the management practices that are shown for stationary non-emergency CI RICE with a site rating of less than or equal to 300 HP in Table 2d of this subpart instead of the applicable emission limitations in Table 2d, operating limitations in Table 2b, and crankcase ventilation system requirements in §63.6625(g). You must comply with the emission limitations in Table 2d and operating limitations in Table 2b that apply for non-emergency CI RICE with a site rating of more than 300 HP located at an area source of HAP emissions by January 1, 2015, or 12 years after the installation date of the engine (whichever is later), but not later than June 1, 2018. You must also comply with the crankcase ventilation system requirements in §63.6625(g) by January 1, 2015, or 12 years after the installation date of the engine (whichever is later), but not later than June 1, 2018.

(e) If you own or operate an existing non-emergency CI RICE with a site rating of more than 300 HP located at an area source of HAP emissions that is certified to the Tier 3 (Tier 2 for engines above 560 kilowatt (kW)) emission standards in Table 1 of 40 CFR 89.112, you may comply with the requirements under this part by meeting the requirements for Tier 3 engines (Tier 2 for engines above 560 kW) in 40 CFR part 60 subpart IIII instead of the emission limitations and other requirements that would otherwise apply under this part for existing non-emergency CI RICE with a site rating of more than 300 HP located at an area source of HAP emissions.

(f) An existing non-emergency SI 4SLB and 4SRB stationary RICE with a site rating of more than 500 HP located at area sources of HAP must meet the definition of remote stationary RICE in §63.6675 on the initial compliance date for the engine, October 19, 2013, in order to be considered a remote stationary RICE under this subpart. Owners and operators of existing non-emergency SI 4SLB and 4SRB stationary RICE with a site rating of more than 500 HP located at area sources of HAP that meet the definition of remote stationary RICE in §63.6675 of this subpart as of October 19, 2013 must evaluate the status of their stationary RICE every 12 months. Owners and operators must keep records of the initial and annual evaluation of the status of the engine. If the evaluation indicates that the stationary RICE no longer meets the definition of remote stationary RICE in §63.6675 of this subpart, the owner or operator must comply with all of the requirements for existing non-emergency SI 4SLB and 4SRB stationary RICE with a site rating of more than 500 HP located at area sources of HAP that are not remote stationary RICE within 1 year of the evaluation.

***The Smith Pond Generator has a new engine with a rating of 156.9 BHP and displacement of 1.1 liters/cylinder. In accordance with 40 CFR 63.6590(c), the engine must meet the requirements of 40 CFR 60 Subpart IIII and is not subject to any other provisions of 40 CFR 63 Subpart ZZZZ.***

#### **40 CFR §63.6604 What Fuel Requirements Must I Meet If I Own Or Operate An Existing Stationary CI RICE?**

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 EDITORIAL NOTE: Changes have been made to this section according to a final rule published in the Federal Register. The original version of the changed text is followed by effective date information and the revised version, both of which are presented in red.  
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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.

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EFFECTIVE DATE NOTE: This change becomes effective April 1, 2013.

#### 40 CFR §63.6604 What Fuel Requirements Must I Meet If I Own Or Operate A Stationary CI RICE?

(a) 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.

(b) Beginning January 1, 2015, if you own or operate an existing emergency CI stationary RICE with a site rating of more than 100 brake HP and a displacement of less than 30 liters per cylinder that uses diesel fuel and operates or is contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in §63.6640(f)(2)(ii) and (iii) or that operates for the purpose specified in §63.6640(f)(4)(ii), you must use diesel fuel that meets the requirements in 40 CFR 80.510(b) for nonroad diesel fuel, except that any existing diesel fuel purchased (or otherwise obtained) prior to January 1, 2015, may be used until depleted.

(c) Beginning January 1, 2015, if you own or operate a new emergency CI stationary RICE with a site rating of more than 500 brake HP and a displacement of less than 30 liters per cylinder located at a major source of HAP that uses diesel fuel and operates or is contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in §63.6640(f)(2)(ii) and (iii), you must use diesel fuel that meets the requirements in 40 CFR 80.510(b) for nonroad diesel fuel, except that any existing diesel fuel purchased (or otherwise obtained) prior to January 1, 2015, may be used until depleted.

(d) Existing CI stationary RICE located in Guam, American Samoa, the Commonwealth of the Northern Mariana Islands, at area sources in areas of Alaska that meet either §63.6603(b)(1) or §63.6603(b)(2), or are on offshore vessels that meet §63.6603(c) are exempt from the requirements of this section.

***The Smith Pond Generator has a new engine with a rating of 156.9 BHP and displacement of 1.1 liters/cylinder. In accordance with 40 CFR 63.6590(c), the engine must meet the requirements of 40 CFR 60 Subpart IIII and is not subject to any other provisions of 40 CFR 63 Subpart ZZZZ.***

#### 40 CFR §63.6605 What Are My General Requirements For Complying With This Subpart?

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EDITORIAL NOTE: Changes have been made to this section according to a final rule

published in the Federal Register. The original version of the changed text is followed by effective date information and the revised version, both of which are presented in red.

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

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 EFFECTIVE DATE NOTE: This change becomes effective April 1, 2013.

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

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 (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.

*The Smith Pond Generator has a new engine with a rating of 156.9 BHP and displacement of 1.1 liters/cylinder. In accordance with 40 CFR 63.6590(c), the engine must meet the requirements of 40 CFR 60 Subpart IIII and is not subject to any other provisions of 40 CFR 63 Subpart ZZZZ.*

**40 CFR §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?**

If you own or operate a stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions you are subject to the requirements of this section.

(a) You must conduct the initial performance test or other initial compliance demonstrations in Table 4 to this subpart that apply to you within 180 days after the compliance date that is specified for your stationary RICE in §63.6595 and according to the provisions in §63.7(a)(2).

(b) If you commenced construction or reconstruction between December 19, 2002 and June 15, 2004 and own or operate stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you must demonstrate initial compliance with either the proposed emission limitations or the promulgated emission limitations no later than February 10, 2005 or no later than 180 days after startup of the source, whichever is later, according to §63.7(a)(2)(ix).

(c) If you commenced construction or reconstruction between December 19, 2002 and June 15, 2004 and own or operate stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, and you chose to comply with the proposed emission limitations when demonstrating initial compliance, you must conduct a second performance test to demonstrate compliance with the promulgated emission limitations by December 13, 2007 or after startup of the source, whichever is later, according to §63.7(a)(2)(ix).

(d) An owner or operator is not required to conduct an initial performance test on units for which a performance test has been previously conducted, but the test must meet all of the conditions described in paragraphs (d)(1) through (5) of this section.

(d)(1) The test must have been conducted using the same methods specified in this subpart, and these methods must have been followed correctly.

(d)(2) The test must not be older than 2 years.

(d)(3) The test must be reviewed and accepted by the Administrator.

(d)(4) Either no process or equipment changes must have been made since the test was performed, or the owner or operator must be able to demonstrate that the results of the performance test, with or without adjustments, reliably demonstrate compliance despite process or equipment changes.

(d)(5) The test must be conducted at any load condition within plus or minus 10 percent of 100 percent load.

*The Smith Pond Generator has a new engine with a rating of 156.9 BHP and displacement of 1.1 liters/cylinder. In accordance with 40 CFR 63.6590(c), the engine must meet the requirements of 40 CFR 60 Subpart IIII and is not subject to any other provisions of 40 CFR 63 Subpart ZZZZ.*

**40 CFR §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?**

If you own or operate a new or reconstructed 4SLB 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, you must conduct an initial performance test within 240 days after the compliance date that is specified for your stationary RICE in §63.6595 and according to the provisions specified in Table 4 to this subpart, as appropriate.

*The Smith Pond Generator has a new engine with a rating of 156.9 BHP and displacement of 1.1 liters/cylinder. In accordance with 40 CFR 63.6590(c), the engine must meet the requirements of 40 CFR 60 Subpart IIII and is not subject to any other provisions of 40 CFR 63 Subpart ZZZZ.*

**40 CFR §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?**

If you 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 you are subject to the requirements of this section.

(a) You must conduct any initial performance test or other initial compliance demonstration according to Tables 4 and 5 to this subpart that apply to you within 180 days after the compliance date that is specified for your stationary RICE in §63.6595 and according to the provisions in §63.7(a)(2).

(b) An owner or operator is not required to conduct an initial performance test on a unit for which a performance test has been previously conducted, but the test must meet all of the conditions described in paragraphs (b)(1) through (4) of this section.

(b)(1) The test must have been conducted using the same methods specified in this subpart, and these methods must have been followed correctly.

(b)(2) The test must not be older than 2 years.

(b)(3) The test must be reviewed and accepted by the Administrator.

(b)(4) Either no process or equipment changes must have been made since the test was performed, or the owner or operator must be able to demonstrate that the results of the performance test, with or without adjustments, reliably demonstrate compliance despite process or equipment changes.

*The Smith Pond Generator has a new engine with a rating of 156.9 BHP and displacement of 1.1 liters/cylinder. In accordance with 40 CFR 63.6590(c), the engine must meet the requirements of 40 CFR 60 Subpart IIII and is not subject to any other provisions of 40 CFR 63 Subpart ZZZZ.*

**40 CFR §63.6615 When Must I Conduct Subsequent Performance Tests?**

If you must comply with the emission limitations and operating limitations, you must conduct subsequent performance tests as specified in Table 3 of this subpart.

*The Smith Pond Generator has a new engine with a rating of 156.9 BHP and displacement of 1.1 liters/cylinder. In accordance with 40 CFR 63.6590(c), the engine must meet the requirements of 40 CFR 60 Subpart IIII and is not subject to any other provisions of 40 CFR 63 Subpart ZZZZ.*

**40 CFR §63.6620 What Performance Tests And Other Procedures Must I Use?**

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EDITORIAL NOTE: Changes have been made to this section according to a final rule published in the Federal Register. The original version of the changed text is followed by effective date information and the revised version, both of which are presented in red.

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(a) You must conduct each performance test in Tables 3 and 4 of this subpart that applies to you.

(b) Each performance test must be conducted according to the requirements that this subpart specifies in Table 4 to this subpart. If you own or operate a non-operational stationary RICE that is subject to performance testing, you do not need to start up the engine solely to conduct the performance test. Owners and operators of a non-operational engine can conduct the performance test when the engine is started up again.

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EFFECTIVE DATE NOTE: This change becomes effective April 1, 2013.

(b) Each performance test must be conducted according to the requirements that this subpart specifies in Table 4 to this subpart. If you own or operate a non-operational stationary RICE that is subject to performance testing, you do not need to start up the engine solely to conduct the performance test. Owners and operators of a non-operational engine can conduct the performance test when the engine is started up again. The test must be conducted at any load condition within plus or minus 10 percent of 100 percent load for the stationary RICE listed in paragraphs (b)(1) through (4) of this section.

(b)(1) Non-emergency 4SRB stationary RICE with a site rating of greater than 500 brake HP located at a major source of HAP emissions.

(b)(2) New non-emergency 4SLB stationary RICE with a site rating of greater than or equal to 250 brake HP located at a major source of HAP emissions.

(b)(3) New non-emergency 2SLB stationary RICE with a site rating of greater than 500 brake HP located at a major source of HAP emissions.

(b)(4) New non-emergency CI stationary RICE with a site rating of greater than 500 brake HP located at a major source of HAP emissions.

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(c) [Reserved]

(d) You must conduct three separate test runs for each performance test required in this section, as specified in §63.7(e)(3). Each test run must last at least 1 hour.

(e)(1) You must use Equation 1 of this section to determine compliance with the percent reduction requirement:

Where:

$C_i$  = concentration of CO or formaldehyde at the control device inlet,

Co = concentration of CO or formaldehyde at the control device outlet, and

R = percent reduction of CO or formaldehyde emissions.

(e)(2) You must normalize the carbon monoxide (CO) or formaldehyde concentrations at the inlet and outlet of the control device to a dry basis and to 15 percent oxygen, or an equivalent percent carbon dioxide (CO<sub>2</sub>). If pollutant concentrations are to be corrected to 15 percent oxygen and CO<sub>2</sub> concentration is measured in lieu of oxygen concentration measurement, a CO<sub>2</sub> correction factor is needed. Calculate the CO<sub>2</sub> correction factor as described in paragraphs (e)(2)(i) through (iii) of this section.

(e)(2)(i) Calculate the fuel-specific Fo value for the fuel burned during the test using values obtained from Method 19, section 5.2, and the following equation:

Where:

Fo = Fuel factor based on the ratio of oxygen volume to the ultimate CO<sub>2</sub> volume produced by the fuel at zero percent excess air.

0.209 = Fraction of air that is oxygen, percent/100.

Fd = Ratio of the volume of dry effluent gas to the gross calorific value of the fuel from Method 19, dsm<sup>3</sup>/J (dscf/106 Btu).

Fc = Ratio of the volume of CO<sub>2</sub> produced to the gross calorific value of the fuel from Method 19, dsm<sup>3</sup>/J (dscf/106 Btu).

(e)(2)(ii) Calculate the CO<sub>2</sub> correction factor for correcting measurement data to 15 percent oxygen, as follows:

Where:

Xco<sub>2</sub> = CO<sub>2</sub> correction factor, percent.

5.9 = 20.9 percent O<sub>2</sub> - 15 percent O<sub>2</sub>, the defined O<sub>2</sub> correction value, percent.

(e)(2)(iii) Calculate the NO<sub>x</sub> and SO<sub>2</sub> gas concentrations adjusted to 15 percent O<sub>2</sub> using CO<sub>2</sub> as follows:

Where:

%CO<sub>2</sub> = Measured CO<sub>2</sub> concentration measured, dry basis, percent.

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EFFECTIVE DATE NOTE: This change becomes effective April 1, 2013.

(d) You must conduct three separate test runs for each performance test required in this section, as specified in §63.7(e)(3). Each test run must last at least 1 hour, unless otherwise

specified in this subpart.

(e)(1) You must use Equation 1 of this section to determine compliance with the percent reduction requirement:

Where:

$C_i$  = concentration of carbon monoxide (CO), total hydrocarbons (THC), or formaldehyde at the control device inlet,

$C_o$  = concentration of CO, THC, or formaldehyde at the control device outlet, and

R = percent reduction of CO, THC, or formaldehyde emissions.

(e)(2) You must normalize the CO, THC, or formaldehyde concentrations at the inlet and outlet of the control device to a dry basis and to 15 percent oxygen, or an equivalent percent carbon dioxide (CO<sub>2</sub>). If pollutant concentrations are to be corrected to 15 percent oxygen and CO<sub>2</sub> concentration is measured in lieu of oxygen concentration measurement, a CO<sub>2</sub> correction factor is needed. Calculate the CO<sub>2</sub> correction factor as described in paragraphs (e)(2)(i) through (iii) of this section.

(e)(2)(i) Calculate the fuel-specific  $F_o$  value for the fuel burned during the test using values obtained from Method 19, Section 5.2, and the following equation:

Where:

$F_o$  = Fuel factor based on the ratio of oxygen volume to the ultimate CO<sub>2</sub> volume produced by the fuel at zero percent excess air.

0.209 = Fraction of air that is oxygen, percent/100.

$F_d$  = Ratio of the volume of dry effluent gas to the gross calorific value of the fuel from Method 19, dsm<sup>3</sup>/J (dscf/106 Btu).

$F_c$  = Ratio of the volume of CO<sub>2</sub> produced to the gross calorific value of the fuel from Method 19, dsm<sup>3</sup>/J (dscf/106 Btu)

(e)(2)(ii) Calculate the CO<sub>2</sub> correction factor for correcting measurement data to 15 percent O<sub>2</sub>, as follows:

Where:

$X_{co2}$  = CO<sub>2</sub> correction factor, percent.

5.9 = 20.9 percent O<sub>2</sub> - 15 percent O<sub>2</sub>, the defined O<sub>2</sub> correction value, percent.

(e)(2)(iii) Calculate the CO, THC, and formaldehyde gas concentrations adjusted to 15 percent O<sub>2</sub> using CO<sub>2</sub> as follows:

Where:

Cadj = Calculated concentration of CO, THC, or formaldehyde adjusted to 15 percent O<sub>2</sub>.

Cd = Measured concentration of CO, THC, or formaldehyde, uncorrected.

XCO<sub>2</sub> = CO<sub>2</sub> correction factor, percent.

%CO<sub>2</sub> = Measured CO<sub>2</sub> concentration measured, dry basis, percent.

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 (f) If you comply with the emission limitation to reduce CO and you are not using an oxidation catalyst, if you comply with the emission limitation to reduce formaldehyde and you are not using NSCR, or if you comply with the emission limitation to limit the concentration of formaldehyde in the stationary RICE exhaust and you are not using an oxidation catalyst or NSCR, you must petition the Administrator for operating limitations to be established during the initial performance test and continuously monitored thereafter; or for approval of no operating limitations. You must not conduct the initial performance test until after the petition has been approved by the Administrator.

(g) If you petition the Administrator for approval of operating limitations, your petition must include the information described in paragraphs (g)(1) through (5) of this section.

(g)(1) Identification of the specific parameters you propose to use as operating limitations;

(g)(2) A discussion of the relationship between these parameters and HAP emissions, identifying how HAP emissions change with changes in these parameters, and how limitations on these parameters will serve to limit HAP emissions;

(g)(3) 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;

(g)(4) A discussion identifying the methods you will use to measure and the instruments you will use to monitor these parameters, as well as the relative accuracy and precision of these methods and instruments; and

(g)(5) A discussion identifying the frequency and methods for recalibrating the instruments you will use for monitoring these parameters.

(h) If you petition the Administrator for approval of no operating limitations, your petition must include the information described in paragraphs (h)(1) through (7) of this section.

(h)(1) Identification of the parameters associated with operation of the stationary RICE and any emission control device which could change intentionally (e.g., operator adjustment, automatic controller adjustment, etc.) or unintentionally (e.g., wear and tear, error, etc.) on a routine basis or over time;

(h)(2) A discussion of the relationship, if any, between changes in the parameters and

changes in HAP emissions;

(h)(3) For the parameters which could change in such a way as to increase HAP emissions, a discussion of whether establishing limitations on the parameters would serve to limit HAP emissions;

(h)(4) For the parameters which could change in such a way as to increase HAP emissions, a discussion of how you could establish upper and/or lower values for the parameters which would establish limits on the parameters in operating limitations;

(h)(5) For the parameters, a discussion identifying the methods you could use to measure them and the instruments you could use to monitor them, as well as the relative accuracy and precision of the methods and instruments;

(h)(6) For the parameters, a discussion identifying the frequency and methods for recalibrating the instruments you could use to monitor them; and

(h)(7) A discussion of why, from your point of view, it is infeasible or unreasonable to adopt the parameters as operating limitations.

(i) The engine percent load during a performance test must be determined by documenting the calculations, assumptions, and measurement devices used to measure or estimate the percent load in a specific application. A written report of the average percent load determination must be included in the notification of compliance status. The following information must be included in the written report: the engine model number, the engine manufacturer, the year of purchase, the manufacturer's site-rated brake horsepower, the ambient temperature, pressure, and humidity during the performance test, and all assumptions that were made to estimate or calculate percent load during the performance test must be clearly explained. If measurement devices such as flow meters, kilowatt meters, beta analyzers, stain gauges, etc. are used, the model number of the measurement device, and an estimate of its accurate in percentage of true value must be provided.

*The Smith Pond Generator has a new engine with a rating of 156.9 BHP and displacement of 1.1 liters/cylinder. In accordance with 40 CFR 63.6590(c), the engine must meet the requirements of 40 CFR 60 Subpart IIII and is not subject to any other provisions of 40 CFR 63 Subpart ZZZZ.*

#### **40 CFR §63.6625 What Are My Monitoring, Installation, Collection, Operation, And Maintenance Requirements?**

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 EDITORIAL NOTE: Changes have been made to this section according to a final rule published in the Federal Register. The original version of the changed text is followed by effective date information and the revised version, both of which are presented in red.  
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(a) If you elect to install a CEMS as specified in Table 5 of this subpart, you must install, operate, and maintain a CEMS to monitor CO and either oxygen or CO<sub>2</sub> at both the inlet and the outlet of the control device according to the requirements in paragraphs (a)(1) through (4) of this section.

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 EFFECTIVE DATE NOTE: This change becomes effective April 1, 2013.

(a) If you elect to install a CEMS as specified in Table 5 of this subpart, you must install, operate, and maintain a CEMS to monitor CO and either O<sub>2</sub> or CO<sub>2</sub> according to the requirements in paragraphs (a)(1) through (4) of this section. If you are meeting a requirement to reduce CO emissions, the CEMS must be installed at both the inlet and outlet of the control device. If you are meeting a requirement to limit the concentration of CO, the CEMS must be installed at the outlet of the control device.

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 (a)(1) Each CEMS must be installed, operated, and maintained according to the applicable performance specifications of 40 CFR part 60, appendix B.

(a)(2) You must conduct an initial performance evaluation and an annual relative accuracy test audit (RATA) of each CEMS according to the requirements in §63.8 and according to the applicable performance specifications of 40 CFR part 60, appendix B as well as daily and periodic data quality checks in accordance with 40 CFR part 60, appendix F, procedure 1.

(a)(3) As specified in §63.8(c)(4)(ii), each CEMS must complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period. You must have at least two data points, with each representing a different 15-minute period, to have a valid hour of data.

(a)(4) The CEMS data must be reduced as specified in §63.8(g)(2) and recorded in parts per million or parts per billion (as appropriate for the applicable limitation) at 15 percent oxygen or the equivalent CO<sub>2</sub> concentration.

(b) If you are required to install a continuous parameter monitoring system (CPMS) as specified in Table 5 of this subpart, you must install, operate, and maintain each CPMS according to the requirements in paragraphs (b)(1) through (5) of this section. For an affected source that is complying with the emission limitations and operating limitations on March 9, 2011, the requirements in paragraph (b) of this section are applicable September 6, 2011.

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 EFFECTIVE DATE NOTE: This change becomes effective April 1, 2013.

(b) If you are required to install a continuous parameter monitoring system (CPMS) as specified in Table 5 of this subpart, you must install, operate, and maintain each CPMS according to the requirements in paragraphs (b)(1) through (6) of this section. For an affected source that is complying with the emission limitations and operating limitations on March 9, 2011, the requirements in paragraph (b) of this section are applicable September 6, 2011.

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 (b)(1) You must prepare a site-specific monitoring plan that addresses the monitoring system design, data collection, and the quality assurance and quality control elements outlined in paragraphs (b)(1)(i) through (v) of this section and in §63.8(d). As specified in §63.8(f)(4), you may request approval of monitoring system quality assurance and quality

control procedures alternative to those specified in paragraphs (b)(1) through (5) of this section in your site-specific monitoring plan.

(b)(1)(i) The performance criteria and design specifications for the monitoring system equipment, including the sample interface, detector signal analyzer, and data acquisition and calculations;

(b)(1)(ii) Sampling interface (e.g., thermocouple) location such that the monitoring system will provide representative measurements;

(b)(1)(iii) Equipment performance evaluations, system accuracy audits, or other audit procedures;

(b)(1)(iv) Ongoing operation and maintenance procedures in accordance with provisions in §63.8(c)(1) and (c)(3); and

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EFFECTIVE DATE NOTE: This change becomes effective April 1, 2013.

(b)(1)(iv) Ongoing operation and maintenance procedures in accordance with provisions in §63.8(c)(1)(ii) and (c)(3); and

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(b)(1)(v) Ongoing reporting and recordkeeping procedures in accordance with provisions in §63.10(c), (e)(1), and (e)(2)(i).

(b)(2) You must install, operate, and maintain each CPMS in continuous operation according to the procedures in your site-specific monitoring plan.

(b)(3) The CPMS must collect data at least once every 15 minutes (see also §63.6635).

(b)(4) For a CPMS for measuring temperature range, the temperature sensor must have a minimum tolerance of 2.8 degrees Celsius (5 degrees Fahrenheit) or 1 percent of the measurement range, whichever is larger.

(b)(5) You must conduct the CPMS equipment performance evaluation, system accuracy audits, or other audit procedures specified in your site-specific monitoring plan at least annually.

(b)(6) You must conduct a performance evaluation of each CPMS in accordance with your site-specific monitoring plan.

(c) If you are operating a new or reconstructed stationary RICE which fires landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, you must monitor and record your fuel usage daily with separate fuel meters to measure the volumetric flow rate of each fuel. In addition, you must operate your stationary RICE in a manner which reasonably minimizes HAP emissions.

(d) If you are operating a new or reconstructed emergency 4SLB 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, you must install a non-resettable hour meter prior to the startup of the engine.

(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:

(e)(1) An existing stationary RICE with a site rating of less than 100 HP located at a major source of HAP emissions;

(e)(2) An existing emergency or black start stationary RICE with a site rating of less than or equal to 500 HP located at a major source of HAP emissions;

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

(e)(4) An existing non-emergency, non-black start stationary CI RICE with a site rating less than or equal to 300 HP located at an area source of HAP emissions;

(e)(5) An existing non-emergency, non-black start 2SLB stationary RICE located at an area source of HAP emissions;

(e)(6) An existing non-emergency, non-black start landfill or digester gas stationary RICE located at an area source of HAP emissions;

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EFFECTIVE DATE NOTE: This change becomes effective April 1, 2013.

(e)(6) An existing non-emergency, non-black start stationary RICE located at an area 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.

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(e)(7) An existing non-emergency, non-black start 4SLB stationary RICE with a site rating less than or equal to 500 HP located at an area source of HAP emissions;

(e)(8) An existing non-emergency, non-black start 4SRB stationary RICE with a site rating less than or equal to 500 HP located at an area source of HAP emissions;

(e)(9) An existing, non-emergency, non-black start 4SLB stationary RICE with a site rating greater than 500 HP located at an area source of HAP emissions that is operated 24 hours or less per calendar year; and

(e)(10) An existing, non-emergency, non-black start 4SRB stationary RICE with a site rating greater than 500 HP located at an area source of HAP emissions that is operated 24

hours or less per calendar year.

(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.

(g) If you own or operate an existing non-emergency, non-black start CI engine greater than or equal to 300 HP that is not equipped with a closed crankcase ventilation system, you must comply with either paragraph (g)(1) or paragraph (g)(2) of this section. Owners and operators must follow the manufacturer's specified maintenance requirements for operating and maintaining the open or closed crankcase ventilation systems and replacing the crankcase filters, or can request the Administrator to approve different maintenance requirements that are as protective as manufacturer requirements. Existing CI engines located at area sources in areas of Alaska not accessible by the FAHS do not have to meet the requirements of paragraph (g) of this section.

(g)(1) Install a closed crankcase ventilation system that prevents crankcase emissions from being emitted to the atmosphere, or

(g)(2) Install an open crankcase filtration emission control system that reduces emissions from the crankcase by filtering the exhaust stream to remove oil mist, particulates, and metals.

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EFFECTIVE DATE NOTE: This change becomes effective April 1, 2013.

(g) If you own or operate an existing non-emergency, non-black start CI engine greater than or equal to 300 HP that is not equipped with a closed crankcase ventilation system, you must comply with either paragraph (g)(1) or paragraph (2) of this section. Owners and operators must follow the manufacturer's specified maintenance requirements for operating and maintaining the open or closed crankcase ventilation systems and replacing the crankcase filters, or can request the Administrator to approve different maintenance requirements that are as protective as manufacturer requirements. Existing CI engines located at area sources in areas of Alaska that meet either §63.6603(b)(1) or §63.6603(b)(2) do not have to meet the requirements of this paragraph (g). Existing CI engines located on offshore vessels that meet §63.6603(c) do not have to meet the requirements of this paragraph (g).

(g)(1) Install a closed crankcase ventilation system that prevents crankcase emissions from being emitted to the atmosphere, or

(g)(2) Install an open crankcase filtration emission control system that reduces emissions from the crankcase by filtering the exhaust stream to remove oil mist, particulates and metals.

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(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.

(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.

(j) If you own or operate a stationary SI engine that is subject to the work, operation or management practices in items 6, 7, or 8 of Table 2c to this subpart or in items 5, 6, 7, 9, or 11 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 Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid 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.

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EFFECTIVE DATE NOTE: This change becomes effective April 1, 2013.

(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 Table 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 business 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 business 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.

(j) If you own or operate a stationary SI engine that is subject to the work, operation or management practices in items 6, 7, or 8 of Table 2c to this subpart or in items 5, 6, 7, 9, or 11 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 Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid 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 business 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 business 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.

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***The Smith Pond Generator has a new engine with a rating of 156.9 BHP and displacement of 1.1 liters/cylinder. In accordance with 40 CFR 63.6590(c), the engine must meet the requirements of 40 CFR 60 Subpart IIII and is not subject to any other provisions of 40 CFR 63 Subpart ZZZZ.***

**40 CFR §63.6630 How Do I Demonstrate Initial Compliance With The Emission Limitations And Operating Limitations?**

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EDITORIAL NOTE: Changes have been made to this section according to a final rule published in the Federal Register. The original version of the changed text is followed by

effective date information and the revised version, both of which are presented in red.

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 (a) You must demonstrate initial compliance with each emission and operating limitation that applies to you according to Table 5 of this subpart.

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 EFFECTIVE DATE NOTE: This change becomes effective April 1, 2013.

40 CFR §63.6630 How Do I Demonstrate Initial Compliance With The Emission Limitations, Operating Limitations, And Other Requirements?

(a) You must demonstrate initial compliance with each emission limitation, operating limitation, and other requirement that applies to you according to Table 5 of this subpart.

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 (b) During the initial performance test, you must establish each operating limitation in Tables 1b and 2b of this subpart that applies to you.

(c) You must submit the Notification of Compliance Status containing the results of the initial compliance demonstration according to the requirements in §63.6645.

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 EFFECTIVE DATE NOTE: This change becomes effective April 1, 2013.

(d) Non-emergency 4SRB stationary RICE complying with the requirement to reduce formaldehyde emissions by 76 percent or more can demonstrate initial compliance with the formaldehyde emission limit by testing for THC instead of formaldehyde. The testing must be conducted according to the requirements in Table 4 of this subpart. The average reduction of emissions of THC determined from the performance test must be equal to or greater than 30 percent.

(e) The initial compliance demonstration required for existing non-emergency 4SLB and 4SRB stationary RICE with a site rating of more than 500 HP located at an area source of HAP that are not remote stationary RICE and that are operated more than 24 hours per calendar year must be conducted according to the following requirements:

(e)(1) The compliance demonstration must consist of at least three test runs.

(e)(2) Each test run must be of at least 15 minute duration, except that each test conducted using the method in appendix A to this subpart must consist of at least one measurement cycle and include at least 2 minutes of test data phase measurement.

(e)(3) If you are demonstrating compliance with the CO concentration or CO percent reduction requirement, you must measure CO emissions using one of the CO measurement methods specified in Table 4 of this subpart, or using appendix A to this subpart.

(e)(4) If you are demonstrating compliance with the THC percent reduction requirement, you must measure THC emissions using Method 25A, reported as propane, of 40 CFR part 60, appendix A.

(e)(5) You must measure O<sub>2</sub> using one of the O<sub>2</sub> measurement methods specified in Table 4 of this subpart. Measurements to determine O<sub>2</sub> concentration must be made at the same time as the measurements for CO or THC concentration.

(e)(6) If you are demonstrating compliance with the CO or THC percent reduction requirement, you must measure CO or THC emissions and O<sub>2</sub> emissions simultaneously at the inlet and outlet of the control device.

***The Smith Pond Generator has a new engine with a rating of 156.9 BHP and displacement of 1.1 liters/cylinder. In accordance with 40 CFR 63.6590(c), the engine must meet the requirements of 40 CFR 60 Subpart IIII and is not subject to any other provisions of 40 CFR 63 Subpart ZZZZ.***

**40 CFR §63.6635 How Do I Monitor And Collect Data To Demonstrate Continuous Compliance?**

(a) If you must comply with emission and operating limitations, you must monitor and collect data according to this section.

(b) Except for monitor malfunctions, associated repairs, required performance evaluations, and required quality assurance or control activities, you must monitor continuously at all times that the stationary RICE is operating. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.

(c) You may not use data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities in data averages and calculations used to report emission or operating levels. You must, however, use all the valid data collected during all other periods.

**40 CFR §63.6640 How Do I Demonstrate Continuous Compliance With The Emission Limitations And Operating Limitations?**

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EDITORIAL NOTE: Changes have been made to this section according to a final rule published in the Federal Register. The original version of the changed text is followed by effective date information and the revised version, both of which are presented in red.

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(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.

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EFFECTIVE DATE NOTE: This change becomes effective April 1, 2013.

40 CFR §63.6640 How Do I Demonstrate Continuous Compliance With The Emission Limitations, Operating Limitations, And Other Requirements?

(a) You must demonstrate continuous compliance with each emission limitation, operating limitation, and other requirements 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.

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(b) You must report each instance in which you did not meet each emission limitation or operating limitation in Tables 1a and 1b, Tables 2a and 2b, Table 2c, and Table 2d to this subpart that apply to you. These instances are deviations from the emission and operating limitations in this subpart. These deviations must be reported according to the requirements in §63.6650. If you change your catalyst, you must reestablish the values of the operating parameters measured during the initial performance test. When you reestablish the values of your operating parameters, you must also conduct a performance test to demonstrate that you are meeting the required emission limitation applicable to your stationary RICE.

(c) [Reserved]

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EFFECTIVE DATE NOTE: This change becomes effective April 1, 2013.

(c) The annual compliance demonstration required for existing non-emergency 4SLB and 4SRB stationary RICE with a site rating of more than 500 HP located at an area source of HAP that are not remote stationary RICE and that are operated more than 24 hours per calendar year must be conducted according to the following requirements:

(c)(1) The compliance demonstration must consist of at least one test run.

- (c)(2) Each test run must be of at least 15 minute duration, except that each test conducted using the method in appendix A to this subpart must consist of at least one measurement cycle and include at least 2 minutes of test data phase measurement.
- (c)(3) If you are demonstrating compliance with the CO concentration or CO percent reduction requirement, you must measure CO emissions using one of the CO measurement methods specified in Table 4 of this subpart, or using appendix A to this subpart.
- (c)(4) If you are demonstrating compliance with the THC percent reduction requirement, you must measure THC emissions using Method 25A, reported as propane, of 40 CFR part 60, appendix A.
- (c)(5) You must measure O<sub>2</sub> using one of the O<sub>2</sub> measurement methods specified in Table 4 of this subpart. Measurements to determine O<sub>2</sub> concentration must be made at the same time as the measurements for CO or THC concentration.
- (c)(6) If you are demonstrating compliance with the CO or THC percent reduction requirement, you must measure CO or THC emissions and O<sub>2</sub> emissions simultaneously at the inlet and outlet of the control device.
- (c)(7) If the results of the annual compliance demonstration show that the emissions exceed the levels specified in Table 6 of this subpart, the stationary RICE must be shut down as soon as safely possible, and appropriate corrective action must be taken (e.g., repairs, catalyst cleaning, catalyst replacement). The stationary RICE must be retested within 7 days of being restarted and the emissions must meet the levels specified in Table 6 of this subpart. If the retest shows that the emissions continue to exceed the specified levels, the stationary RICE must again be shut down as soon as safely possible, and the stationary RICE may not operate, except for purposes of startup and testing, until the owner/operator demonstrates through testing that the emissions do not exceed the levels specified in Table 6 of this subpart.

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(d) For new, reconstructed, and rebuilt stationary RICE, deviations from the emission or operating limitations that occur during the first 200 hours of operation from engine startup (engine burn-in period) are not violations. Rebuilt stationary RICE means a stationary RICE that has been rebuilt as that term is defined in 40 CFR 94.11(a).

(e) You must also report each instance in which you did not meet the requirements in Table 8 to this subpart that apply to you. If you own or operate 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 (except new or reconstructed 4SLB engines greater than or equal to 250 and less than or equal to 500 brake HP), a new or reconstructed stationary RICE located at an area source of HAP emissions, or any of the following RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you do not need to comply with the requirements in Table 8 to this subpart: An existing 2SLB stationary RICE, an existing 4SLB stationary RICE, an existing emergency stationary RICE, an existing limited use stationary RICE, or an existing stationary RICE which fires landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis. If you own or operate any of the following RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you do not need to comply with the requirements in Table

8 to this subpart, except for the initial notification requirements: a new or reconstructed stationary RICE that combusts landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, a new or reconstructed emergency stationary RICE, or a new or reconstructed limited use stationary RICE.

(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.

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

(f)(1)(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.

(f)(1)(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.

(f)(2) If you own or operate an emergency stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions that was installed prior to June 12, 2006, you must operate the engine according to the conditions described in paragraphs (f)(2)(i) through (iii) of this section. If you do not operate the engine according to the requirements in paragraphs (f)(2)(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.

(f)(2)(i) There is no time limit on the use of emergency stationary RICE in emergency situations.

(f)(2)(ii) You may operate your emergency stationary RICE for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by the manufacturer, the vendor, or the insurance company associated with the engine. Required testing of such units should be minimized, but there is no time limit on the use of emergency stationary RICE in emergency situations and for routine testing and maintenance.

(f)(2)(iii) You may operate your emergency stationary RICE for an additional 50 hours per year in non-emergency situations. 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.

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EFFECTIVE DATE NOTE: This change becomes effective April 1, 2013.

(f) If you own or operate an emergency stationary RICE, you must operate the emergency stationary RICE according to the requirements in paragraphs (f)(1) through (4) of this section. In order for the engine to be considered an emergency stationary RICE 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 (4) of this section, is prohibited. If you do not operate the engine according to the requirements in paragraphs (f)(1) through (4) of this section, the engine will not be considered an emergency engine under this subpart and must meet all requirements for non-emergency engines.

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

(f)(2) You may operate your emergency stationary RICE 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 paragraphs (f)(3) and (4) of this section counts as part of the 100 hours per calendar year allowed by this paragraph (f)(2).

(f)(2)(i) Emergency stationary RICE 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 RICE beyond 100 hours per calendar year.

(f)(2)(ii) Emergency stationary RICE 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 §63.14), 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.

(f)(2)(iii) Emergency stationary RICE may be operated for periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency.

(f)(3) Emergency stationary RICE located at major sources of HAP 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. The 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, 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.

(f)(4) Emergency stationary RICE located at area sources of HAP 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 paragraphs (f)(4)(i) and (ii) of this section, the 50 hours per 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.

(f)(4)(i) Prior to May 3, 2014, the 50 hours per year for non-emergency situations can be used for peak shaving or non-emergency demand response to generate income for a facility, or to otherwise supply power as part of a financial arrangement with another entity if the engine is operated as part of a peak shaving (load management program) with the local distribution system operator and the power is provided only to the facility itself or to support the local distribution system.

(f)(4)(ii) 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:

(f)(4)(ii)(A) The engine is dispatched by the local balancing authority or local transmission and distribution system operator.

(f)(4)(ii)(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.

(f)(4)(ii)(C) The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines.

(f)(4)(ii)(D) The power is provided only to the facility itself or to support the local transmission and distribution system.

(f)(4)(ii)(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 Smith Pond Generator has a new engine with a rating of 156.9 BHP and displacement of 1.1 liters/cylinder. In accordance with 40 CFR 63.6590(c), the engine must meet the requirements of 40 CFR 60 Subpart IIII and is not subject to any other provisions of 40 CFR 63 Subpart ZZZZ.*

#### **40 CFR §63.6645 What Notifications Must I Submit And When?**

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**EDITORIAL NOTE: Changes have been made to this section according to a final rule published in the Federal Register. The original version of the changed text is followed by effective date information and the revised version, both of which are presented in red.**

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(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;

(a)(1) 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.

(a)(2) An existing stationary RICE located at an area source of HAP emissions.

(a)(3) A stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions.

(a)(4) A new or reconstructed 4SLB stationary RICE with a site rating of greater than or equal to 250 HP located at a major source of HAP emissions.

(a)(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.

(b) As specified in §63.9(b)(2), if you start up your stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions before the effective date of this subpart, you must submit an Initial Notification not later than December 13, 2004.

(c) If you start up your new or reconstructed stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions on or after August 16, 2004, you

must submit an Initial Notification not later than 120 days after you become subject to this subpart.

(d) As specified in §63.9(b)(2), if you start up your stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions before the effective date of this subpart and you are required to submit an initial notification, you must submit an Initial Notification not later than July 16, 2008.

(e) If you start up your new or reconstructed stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions on or after March 18, 2008 and you are required to submit an initial notification, you must submit an Initial Notification not later than 120 days after you become subject to this subpart.

(f) If you are required to submit an Initial Notification but are otherwise not affected by the requirements of this subpart, in accordance with §63.6590(b), your notification should include the information in §63.9(b)(2)(i) through (v), and a statement that your stationary RICE has no additional requirements and explain the basis of the exclusion (for example, that it operates exclusively as an emergency stationary RICE if it has a site rating of more than 500 brake HP located at a major source of HAP emissions).

(g) If you are required to conduct a performance test, you must submit a Notification of Intent to conduct a performance test at least 60 days before the performance test is scheduled to begin as required in §63.7(b)(1).

(h) If you are required to conduct a performance test or other initial compliance demonstration as specified in Tables 4 and 5 to this subpart, you must submit a Notification of Compliance Status according to §63.9(h)(2)(ii).

(h)(1) For each initial compliance demonstration required in Table 5 to this subpart that does not include a performance test, you must submit the Notification of Compliance Status before the close of business on the 30th day following the completion of the initial compliance demonstration.

(h)(2) For each initial compliance demonstration required in Table 5 to this subpart that includes a performance test conducted according to the requirements in Table 3 to this subpart, you must submit the Notification of Compliance Status, including the performance test results, before the close of business on the 60th day following the completion of the performance test according to §63.10(d)(2).

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**EFFECTIVE DATE NOTE: This change becomes effective April 1, 2013.**

(i) If you own or operate an existing non-emergency CI RICE with a site rating of more than 300 HP located at an area source of HAP emissions that is certified to the Tier 1 or Tier 2 emission standards in Table 1 of 40 CFR 89.112 and subject to an enforceable state or local standard requiring engine replacement and you intend to meet management practices rather than emission limits, as specified in §63.6603(d), you must submit a notification by March 3, 2013, stating that you intend to use the provision in §63.6603(d) and identifying the state or local regulation that the engine is subject to.

*The Smith Pond Generator has a new engine with a rating of 156.9 BHP and displacement of 1.1 liters/cylinder. In accordance with 40 CFR 63.6590(c), the engine*

*must meet the requirements of 40 CFR 60 Subpart IIII and is not subject to any other provisions of 40 CFR 63 Subpart ZZZZ.*

#### **40 CFR §63.6650 What Reports Must I Submit And When?**

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**EDITORIAL NOTE: Changes have been made to this section according to a final rule published in the Federal Register. The original version of the changed text is followed by effective date information and the revised version, both of which are presented in red.**

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- (a) You must submit each report in Table 7 of this subpart that applies to you.
- (b) Unless the Administrator has approved a different schedule for submission of reports under §63.10(a), you must submit each report by the date in Table 7 of this subpart and according to the requirements in paragraphs (b)(1) through (b)(9) of this section.
- (b)(1) For semiannual Compliance reports, the first Compliance report must cover the period beginning on the compliance date that is specified for your affected source in §63.6595 and ending on June 30 or December 31, whichever date is the first date following the end of the first calendar half after the compliance date that is specified for your source in §63.6595.
- (b)(2) For semiannual Compliance reports, the first Compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date follows the end of the first calendar half after the compliance date that is specified for your affected source in §63.6595.
- (b)(3) For semiannual Compliance reports, each subsequent Compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31.
- (b)(4) For semiannual Compliance reports, each subsequent Compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period.
- (b)(5) For each stationary RICE that is subject to permitting regulations pursuant to 40 CFR part 70 or 71, and if the permitting authority has established dates for submitting semiannual reports pursuant to 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6 (a)(3)(iii)(A), you may submit the first and subsequent Compliance reports according to the dates the permitting authority has established instead of according to the dates in paragraphs (b)(1) through (b)(4) of this section.
- (b)(6) For annual Compliance reports, the first Compliance report must cover the period beginning on the compliance date that is specified for your affected source in §63.6595 and ending on December 31.
- (b)(7) For annual Compliance reports, the first Compliance report must be postmarked or delivered no later than January 31 following the end of the first calendar year after the compliance date that is specified for your affected source in §63.6595.

**(b)(8)** For annual Compliance reports, each subsequent Compliance report must cover the annual reporting period from January 1 through December 31.

**(b)(9)** For annual Compliance reports, each subsequent Compliance report must be postmarked or delivered no later than January 31.

**(c)** The Compliance report must contain the information in paragraphs (c)(1) through (6) of this section.

**(c)(1)** Company name and address.

**(c)(2)** Statement by a responsible official, with that official's name, title, and signature, certifying the accuracy of the content of the report.

**(c)(3)** Date of report and beginning and ending dates of the reporting period.

**(c)(4)** If you had a malfunction during the reporting period, the compliance report must include the number, duration, and a brief description for each type of malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded. The report must also include a description of actions taken by an owner or operator during a malfunction of an affected source to minimize emissions in accordance with §63.6605(b), including actions taken to correct a malfunction.

**(c)(5)** If there are no deviations from any emission or operating limitations that apply to you, a statement that there were no deviations from the emission or operating limitations during the reporting period.

**(c)(6)** If there were no periods during which the continuous monitoring system (CMS), including CEMS and CPMS, was out-of-control, as specified in §63.8(c)(7), a statement that there were no periods during which the CMS was out-of-control during the reporting period.

**(d)** For each deviation from an emission or operating limitation that occurs for a stationary RICE where you are not using a CMS to comply with the emission or operating limitations in this subpart, the Compliance report must contain the information in paragraphs (c)(1) through (4) of this section and the information in paragraphs (d)(1) and (2) of this section.

**(d)(1)** The total operating time of the stationary RICE at which the deviation occurred during the reporting period.

**(d)(2)** Information on the number, duration, and cause of deviations (including unknown cause, if applicable), as applicable, and the corrective action taken.

**(e)** For each deviation from an emission or operating limitation occurring for a stationary RICE where you are using a CMS to comply with the emission and operating limitations in this subpart, you must include information in paragraphs (c)(1) through (4) and (e)(1) through (12) of this section.

**(e)(1)** The date and time that each malfunction started and stopped.

**(e)(2)** The date, time, and duration that each CMS was inoperative, except for zero (low-level) and high-level checks.

**(e)(3)** The date, time, and duration that each CMS was out-of-control, including the information in §63.8(c)(8).

(e)(4) The date and time that each deviation started and stopped, and whether each deviation occurred during a period of malfunction or during another period.

(e)(5) A summary of the total duration of the deviation during the reporting period, and the total duration as a percent of the total source operating time during that reporting period.

(e)(6) A breakdown of the total duration of the deviations during the reporting period into those that are due to control equipment problems, process problems, other known causes, and other unknown causes.

(e)(7) A summary of the total duration of CMS downtime during the reporting period, and the total duration of CMS downtime as a percent of the total operating time of the stationary RICE at which the CMS downtime occurred during that reporting period.

(e)(8) An identification of each parameter and pollutant (CO or formaldehyde) that was monitored at the stationary RICE.

(e)(9) A brief description of the stationary RICE.

(e)(10) A brief description of the CMS.

(e)(11) The date of the latest CMS certification or audit.

(e)(12) A description of any changes in CMS, processes, or controls since the last reporting period.

(f) Each affected source that has obtained a title V operating permit pursuant to 40 CFR part 70 or 71 must report all deviations as defined in this subpart in the semiannual monitoring report required by 40 CFR 70.6 (a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A). If an affected source submits a Compliance report pursuant to Table 7 of this subpart along with, or as part of, the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), and the Compliance report includes all required information concerning deviations from any emission or operating limitation in this subpart, submission of the Compliance report shall be deemed to satisfy any obligation to report the same deviations in the semiannual monitoring report. However, submission of a Compliance report shall not otherwise affect any obligation the affected source may have to report deviations from permit requirements to the permit authority.

(g) If you are operating as a new or reconstructed stationary RICE which fires landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, you must submit an annual report according to Table 7 of this subpart by the date specified unless the Administrator has approved a different schedule, according to the information described in paragraphs (b)(1) through (b)(5) of this section. You must report the data specified in (g)(1) through (g)(3) of this section.

(g)(1) Fuel flow rate of each fuel and the heating values that were used in your calculations. You must also demonstrate that the percentage of heat input provided by landfill gas or digester gas is equivalent to 10 percent or more of the total fuel consumption on an annual basis.

(g)(2) The operating limits provided in your federally enforceable permit, and any deviations from these limits.

(g)(3) Any problems or errors suspected with the meters.

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• Editorial Note

**EFFECTIVE DATE NOTE: This change becomes effective April 1, 2013.**

(h) If you own or operate an emergency stationary RICE with a site rating of more than 100 brake HP that operates or is 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) or that operates for the purpose specified in §63.6640(f)(4)(ii), you must submit an annual report according to the requirements in paragraphs (h)(1) through (3) of this section.

(h)(1) The report must contain the following information:

(h)(1)(i) Company name and address where the engine is located.

(h)(1)(ii) Date of the report and beginning and ending dates of the reporting period.

(h)(1)(iii) Engine site rating and model year.

(h)(1)(iv) Latitude and longitude of the engine in decimal degrees reported to the fifth decimal place.

(h)(1)(v) Hours operated for the purposes specified in §63.6640(f)(2)(ii) and (iii), including the date, start time, and end time for engine operation for the purposes specified in §63.6640(f)(2)(ii) and (iii).

(h)(1)(vi) Number of hours the engine is contractually obligated to be available for the purposes specified in §63.6640(f)(2)(ii) and (iii).

(h)(1)(vii) Hours spent for operation for the purpose specified in §63.6640(f)(4)(ii), including the date, start time, and end time for engine operation for the purposes specified in §63.6640(f)(4)(ii). The report must also identify the entity that dispatched the engine and the situation that necessitated the dispatch of the engine.

(h)(1)(viii) If there were no deviations from the fuel requirements in §63.6604 that apply to the engine (if any), a statement that there were no deviations from the fuel requirements during the reporting period.

(h)(1)(ix) If there were deviations from the fuel requirements in §63.6604 that apply to the engine (if any), information on the number, duration, and cause of deviations, and the corrective action taken.

(h)(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.

(h)(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](http://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 §63.13.

*The Smith Pond Generator has a new engine with a rating of 156.9 BHP and displacement of 1.1 liters/cylinder. In accordance with 40 CFR 63.6590(c), the engine must meet the requirements of 40 CFR 60 Subpart IIII and is not subject to any other provisions of 40 CFR 63 Subpart ZZZZ.*

#### **40 CFR §63.6655 What Records Must I Keep?**

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**EDITORIAL NOTE:** Changes have been made to this section according to a final rule published in the Federal Register. The original version of the changed text is followed by effective date information and the revised version, both of which are presented in red.

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(a) If you must comply with the emission and operating limitations, you must keep the records described in paragraphs (a)(1) through (a)(5), (b)(1) through (b)(3) and (c) of this section.

(a)(1) A copy of each notification and report that you submitted to comply with this subpart, including all documentation supporting any Initial Notification or Notification of Compliance Status that you submitted, according to the requirement in §63.10(b)(2)(xiv).

(a)(2) Records of the occurrence and duration of each malfunction of operation (*i.e.*, process equipment) or the air pollution control and monitoring equipment.

(a)(3) Records of performance tests and performance evaluations as required in §63.10(b)(2)(viii).

(a)(4) Records of all required maintenance performed on the air pollution control and monitoring equipment.

(a)(5) Records of actions taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.

(b) For each CEMS or CPMS, you must keep the records listed in paragraphs (b)(1) through (3) of this section.

(b)(1) Records described in §63.10(b)(2)(vi) through (xi).

(b)(2) Previous (*i.e.*, superseded) versions of the performance evaluation plan as required in §63.8(d)(3).

(b)(3) Requests for alternatives to the relative accuracy test for CEMS or CPMS as required in §63.8(f)(6)(i), if applicable.

(c) If you are operating a new or reconstructed stationary RICE which fires landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, you must keep the records of your daily fuel usage monitors.

(d) You must keep the records required in Table 6 of this subpart to show continuous compliance with each emission or operating limitation that applies to you.

(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;

(e)(1) An existing stationary RICE with a site rating of less than 100 brake HP located at a major source of HAP emissions.

(e)(2) An existing stationary emergency RICE.

(e)(3) An existing stationary RICE located at an area source of HAP emissions subject to management practices as shown in Table 2d to this subpart.

(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.

**EFFECTIVE DATE NOTE: This change becomes effective April 1, 2013.**

(f) If you own or operate any of the stationary RICE in paragraphs (f)(1) through (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 engine is used for the purposes specified in §63.6640(f)(2)(ii) or (iii) or §63.6640(f)(4)(ii), the owner or operator must keep records of the notification of the emergency situation, and the date, start time, and end time of engine operation for these purposes.

(f)(1) 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 that does not meet the standards applicable to non-emergency engines.

(f)(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 Smith Pond Generator has a new engine with a rating of 156.9 BHP and displacement of 1.1 liters/cylinder. In accordance with 40 CFR 63.6590(c), the engine must meet the requirements of 40 CFR 60 Subpart IIII and is not subject to any other provisions of 40 CFR 63 Subpart ZZZZ.*

#### **40 CFR §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).

*The Smith Pond Generator has a new engine with a rating of 156.9 BHP and displacement of 1.1 liters/cylinder. In accordance with 40 CFR 63.6590(c), the engine must meet the requirements of 40 CFR 60 Subpart IIII and is not subject to any other provisions of 40 CFR 63 Subpart ZZZZ.*

#### **40 CFR §63.6665 What Parts Of The General Provisions Apply To Me?**

Table 8 to this subpart shows which parts of the General Provisions in §§63.1 through 63.15 apply to you. If you own or operate 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 (except new or reconstructed 4SLB engines greater than or equal to 250 and less than or equal to 500 brake HP), a new or reconstructed stationary RICE located at an area source of HAP emissions, or any of the following RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you do not need to comply with any of the requirements of the General Provisions specified in Table 8: An existing 2SLB stationary RICE, an existing 4SLB stationary RICE, an existing stationary RICE that combusts landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, an existing emergency stationary RICE, or an existing limited use stationary RICE. If you own or operate any of the following RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you do not need to comply with the requirements in the General Provisions specified in Table 8 except for the initial notification requirements: A new stationary RICE that combusts landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, a new emergency stationary RICE, or a new limited use stationary RICE.

*The Smith Pond Generator has a new engine with a rating of 156.9 BHP and displacement of 1.1 liters/cylinder. In accordance with 40 CFR 63.6590(c), the engine must meet the requirements of 40 CFR 60 Subpart IIII and is not subject to any other provisions of 40 CFR 63 Subpart ZZZZ.*

#### **40 CFR §63.6670 Who Implements And Enforces This Subpart?**

(a) This subpart is implemented and enforced by the U.S. EPA, or a delegated authority such as your State, local, or tribal agency. If the U.S. EPA Administrator has delegated authority to your State, local, or tribal agency, then that agency (as well as the U.S. EPA) has the authority to implement and enforce this subpart. You should contact your U.S. EPA Regional Office to find out whether this subpart is delegated to your State, local, or tribal agency.

(b) In delegating implementation and enforcement authority of this subpart to a State, local, or tribal agency under 40 CFR part 63, subpart E, the authorities contained in paragraph (c) of this section are retained by the Administrator of the U.S. EPA and are not transferred to the State, local, or tribal agency.

(c) The authorities that will not be delegated to State, local, or tribal agencies are:

(c)(1) Approval of alternatives to the non-opacity emission limitations and operating limitations in §63.6600 under §63.6(g).

(c)(2) Approval of major alternatives to test methods under §63.7(e)(2)(ii) and (f) and as defined in §63.90.

(c)(3) Approval of major alternatives to monitoring under §63.8(f) and as defined in §63.90.

(c)(4) Approval of major alternatives to recordkeeping and reporting under §63.10(f) and as defined in §63.90.

(c)(5) Approval of a performance test which was conducted prior to the effective date of the rule, as specified in §63.6610(b).

*The Smith Pond Generator has a new engine with a rating of 156.9 BHP and displacement of 1.1 liters/cylinder. In accordance with 40 CFR 63.6590(c), the engine must meet the requirements of 40 CFR 60 Subpart IIII and is not subject to any other provisions of 40 CFR 63 Subpart ZZZZ.*

#### **40 CFR §63.6675 What Definitions Apply To This Subpart?**

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**EDITORIAL NOTE:** Changes have been made to this section according to a final rule published in the Federal Register. The original version of the changed text is followed by effective date information and the revised version, both of which are presented in red.

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Terms used in this subpart are defined in the Clean Air Act (CAA); in 40 CFR 63.2, the General Provisions of this part; and in this section as follows:

**EFFECTIVE DATE NOTE: This change becomes effective April 1, 2013.**

*Alaska Railbelt Grid* means the service areas of the six regulated public utilities that extend from Fairbanks to Anchorage and the Kenai Peninsula. These utilities are Golden Valley Electric Association; Chugach Electric Association; Matanuska Electric Association; Homer Electric Association; Anchorage Municipal Light & Power; and the City of Seward Electric System.

*Area source* means any stationary source of HAP that is not a major source as defined in part 63.

*Associated equipment* as used in this subpart and as referred to in section 112(n)(4) of the CAA, means equipment associated with an oil or natural gas exploration or production well, and includes all equipment from the well bore to the point of custody transfer, except glycol dehydration units, storage vessels with potential for flash emissions, combustion turbines, and stationary RICE.

**EFFECTIVE DATE NOTE: This change becomes effective April 1, 2013.**

*Backup power for renewable energy* means an engine that provides backup power to a facility that generates electricity from renewable energy resources, as that term is defined in Alaska Statute 42.45.045(1)(5) (incorporated by reference, see §63.14).

*Black start engine* means an engine whose only purpose is to start up a combustion turbine.

*CAA* means the Clean Air Act (42 U.S.C. 7401 et seq., as amended by Public Law 101-549, 104 Stat. 2399).

*Commercial emergency stationary RICE* means an emergency stationary RICE used in commercial establishments such as office buildings, hotels, stores, telecommunications facilities, restaurants, financial institutions such as banks, doctor's offices, and sports and performing arts facilities.

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

*Custody transfer* means the transfer of hydrocarbon liquids or natural gas: After processing and/or treatment in the producing operations, or from storage vessels or automatic transfer facilities or other such equipment, including product loading racks, to pipelines or any other forms of transportation. For the purposes of this subpart, the point at which such liquids or natural gas enters a natural gas processing plant is a point of custody transfer.

*Deviation* means any instance in which an affected source subject to this subpart, or an owner or operator of such a source:

(1) Fails to meet any requirement or obligation established by this subpart, including but not limited to any emission limitation or operating limitation;

(2) Fails to meet any term or condition that is adopted to implement an applicable requirement in this subpart and that is included in the operating permit for any affected source required to obtain such a permit; or

(3) Fails to meet any emission limitation or operating limitation in this subpart during malfunction, regardless or whether or not such failure is permitted by this subpart.

(4) Fails to satisfy the general duty to minimize emissions established by §63.6(e)(1)(i).

*Diesel engine* means any stationary RICE in which a high boiling point liquid fuel injected into the combustion chamber ignites when the air charge has been compressed to a temperature sufficiently high for auto-ignition. This process is also known as compression ignition.

*Diesel fuel* means any liquid obtained from the distillation of petroleum with a boiling point of approximately 150 to 360 degrees Celsius. One commonly used form is fuel oil number 2. Diesel fuel also includes any non-distillate fuel with comparable physical and chemical properties (e.g. biodiesel) that is suitable for use in compression ignition engines.

*Digester gas* means any gaseous by-product of wastewater treatment typically formed through the anaerobic decomposition of organic waste materials and composed principally of methane and CO<sub>2</sub>.

*Dual-fuel engine* means any stationary RICE in which a liquid fuel (typically diesel fuel) is used for compression ignition and gaseous fuel (typically natural gas) is used as the primary fuel.

*Emergency stationary RICE* means any stationary internal combustion engine whose operation is limited to emergency situations and required testing and maintenance. Examples include stationary RICE used to produce power for critical networks or equipment (including power supplied to portions of a facility) when electric power from the local utility (or the normal power source, if the facility runs on its own power production) is interrupted, or stationary RICE used to pump water in the case of fire or flood, etc. Stationary RICE used for peak shaving are not considered emergency stationary RICE. Stationary RICE used to supply power to an electric grid or that supply non-emergency power as part of a financial arrangement with another entity are not considered to be emergency engines, except as permitted under §63.6640(f). All emergency stationary RICE must comply with the requirements specified in §63.6640(f) in order to be considered emergency stationary RICE. If the engine does not comply with the requirements specified in §63.6640(f), then it is not considered to be an emergency stationary RICE under this subpart.

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**EFFECTIVE DATE NOTE: This change becomes effective April 1, 2013.**

*Emergency stationary RICE* means any stationary reciprocating internal combustion engine that meets all of the criteria in paragraphs (1) through (3) of this definition. All emergency stationary RICE must comply with the requirements specified in §63.6640(f) in order to be considered emergency stationary RICE. If the engine does not comply with the requirements specified in §63.6640(f), then it is not considered to be an emergency stationary RICE under this subpart.

- (1) The stationary RICE is operated to provide electrical power or mechanical work during an emergency situation. Examples include stationary RICE used to produce power for critical networks or equipment (including power supplied to portions of a facility) when electric power from the local utility (or the normal power source, if the facility runs on its own power production) is interrupted, or stationary RICE used to pump water in the case of fire or flood, etc.
- (2) The stationary RICE is operated under limited circumstances for situations not included in paragraph (1) of this definition, as specified in §63.6640(f).
- (3) The stationary RICE operates as part of a financial arrangement with another entity in situations not included in paragraph (1) of this definition only as allowed in §63.6640(f)(2)(ii) or (iii) and §63.6640(f)(4)(i) or (ii).

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*Engine startup* means the time from initial start until applied load and engine and associated equipment reaches steady state or normal operation. For stationary engine with catalytic controls, engine startup means the time from initial start until applied load and engine and associated equipment, including the catalyst, reaches steady state or normal operation.

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

*Gaseous fuel* means a material used for combustion which is in the gaseous state at standard atmospheric temperature and pressure conditions.

*Gasoline* means any fuel sold in any State for use in motor vehicles and motor vehicle engines, or nonroad or stationary engines, and commonly or commercially known or sold as gasoline.

*Glycol dehydration unit* means a device in which a liquid glycol (including, but not limited to, ethylene glycol, diethylene glycol, or triethylene glycol) absorbent directly contacts a natural gas stream and absorbs water in a contact tower or absorption column (absorber). The glycol contacts and absorbs water vapor and other gas stream constituents from the natural gas and becomes "rich" glycol. This glycol is then regenerated in the glycol dehydration unit reboiler. The "lean" glycol is then recycled.

*Hazardous air pollutants (HAP)* means any air pollutants listed in or pursuant to section 112(b) of the CAA.

*ISO standard day conditions* means 288 degrees Kelvin (15 degrees Celsius), 60 percent relative humidity and 101.3 kilopascals pressure.

*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.

*Landfill gas* means a gaseous by-product of the land application of municipal refuse typically formed through the anaerobic decomposition of waste materials and composed principally of methane and CO<sub>2</sub>.

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

*Limited use stationary RICE* means any stationary RICE that operates less than 100 hours per year.

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

*Liquid fuel* means any fuel in liquid form at standard temperature and pressure, including but not limited to diesel, residual/crude oil, kerosene/naphtha (jet fuel), and gasoline.

*Major Source*, as used in this subpart, shall have the same meaning as in §63.2, except that:

- (1) Emissions from any oil or gas exploration or production well (with its associated equipment (as defined in this section)) and emissions from any pipeline compressor station or pump station shall not be aggregated with emissions from other similar units, to determine whether such emission points or stations are major sources, even when emission points are in a contiguous area or under common control;
- (2) For oil and gas production facilities, emissions from processes, operations, or equipment that are not part of the same oil and gas production facility, as defined in §63.1271 of subpart HHH of this part, shall not be aggregated;
- (3) For production field facilities, only HAP emissions from glycol dehydration units, storage vessel with the potential for flash emissions, combustion turbines and reciprocating internal combustion engines shall be aggregated for a major source determination; and
- (4) Emissions from processes, operations, and equipment that are not part of the same natural gas transmission and storage facility, as defined in §63.1271 of subpart HHH of this part, shall not be aggregated.

*Malfunction* means any sudden, infrequent, and not reasonably preventable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner which causes, or has the potential to cause, the emission limitations in an applicable standard to be exceeded. Failures that are caused in part by poor maintenance or careless operation are not malfunctions.

*Natural gas* means a naturally occurring mixture of hydrocarbon and non-hydrocarbon gases found in geologic formations beneath the Earth's surface, of which the principal constituent is methane. Natural gas may be field or pipeline quality.

*Non-selective catalytic reduction (NSCR)* means an add-on catalytic nitrogen oxides (NO<sub>x</sub>) control device for rich burn engines that, in a two-step reaction, promotes the conversion of excess oxygen, NO<sub>x</sub>, CO, and volatile organic compounds (VOC) into CO<sub>2</sub>, nitrogen, and water.

*Oil and gas production facility* as used in this subpart means any grouping of equipment where hydrocarbon liquids are processed, upgraded (*i.e.*, remove impurities or other constituents to meet contract specifications), or stored prior to the point of custody transfer; or where natural gas is processed, upgraded, or stored prior to entering the natural gas transmission and storage source category. For purposes of a major source determination, facility (including a building, structure, or installation) means oil and natural gas production

and processing equipment that is located within the boundaries of an individual surface site as defined in this section. Equipment that is part of a facility will typically be located within close proximity to other equipment located at the same facility. Pieces of production equipment or groupings of equipment located on different oil and gas leases, mineral fee tracts, lease tracts, subsurface or surface unit areas, surface fee tracts, surface lease tracts, or separate surface sites, whether or not connected by a road, waterway, power line or pipeline, shall not be considered part of the same facility. Examples of facilities in the oil and natural gas production source category include, but are not limited to, well sites, satellite tank batteries, central tank batteries, a compressor station that transports natural gas to a natural gas processing plant, and natural gas processing plants.

*Oxidation catalyst* means an add-on catalytic control device that controls CO and VOC by oxidation.

*Peaking unit or engine* means any standby engine intended for use during periods of high demand that are not emergencies.

*Percent load* means the fractional power of an engine compared to its maximum manufacturer's design capacity at engine site conditions. Percent load may range between 0 percent to above 100 percent.

*Potential to emit* means the maximum capacity of a stationary source to emit a pollutant under its physical and operational design. Any physical or operational limitation on the capacity of the stationary source to emit a 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 federally enforceable. For oil and natural gas production facilities subject to subpart HH of this part, the potential to emit provisions in [§63.760\(a\)](#) may be used. For natural gas transmission and storage facilities subject to subpart HHH of this part, the maximum annual facility gas throughput for storage facilities may be determined according to [§63.1270\(a\)\(1\)](#) and the maximum annual throughput for transmission facilities may be determined according to [§63.1270\(a\)\(2\)](#).

*Production field facility* means those oil and gas production facilities located prior to the point of custody transfer.

*Production well* means any hole drilled in the earth from which crude oil, condensate, or field natural gas is extracted.

*Propane* means a colorless gas derived from petroleum and natural gas, with the molecular structure C<sub>3</sub>H<sub>8</sub>.

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**EFFECTIVE DATE NOTE: This change becomes effective April 1, 2013.**

*Remote stationary RICE* means stationary RICE meeting any of the following criteria:

(1) Stationary RICE located in an offshore area that is beyond the line of ordinary low water along that portion of the coast of the United States that is in direct contact with the open seas and beyond the line marking the seaward limit of inland waters.

(2) Stationary RICE located on a pipeline segment that meets both of the criteria in paragraphs (2)(i) and (ii) of this definition.

(i) A pipeline segment with 10 or fewer buildings intended for human occupancy and no buildings with four or more stories within 220 yards (200 meters) on either side of the centerline of any continuous 1-mile (1.6 kilometers) length of pipeline. Each separate dwelling unit in a multiple dwelling unit building is counted as a separate building intended for human occupancy.

(ii) The pipeline segment does not lie within 100 yards (91 meters) of either a building or a small, well-defined outside area (such as a playground, recreation area, outdoor theater, or other place of public assembly) that is occupied by 20 or more persons on at least 5 days a week for 10 weeks in any 12-month period. The days and weeks need not be consecutive. The building or area is considered occupied for a full day if it is occupied for any portion of the day.

(iii) For purposes of this paragraph (2), the term pipeline segment means all parts of those physical facilities through which gas moves in transportation, including but not limited to pipe, valves, and other appurtenance attached to pipe, compressor units, metering stations, regulator stations, delivery stations, holders, and fabricated assemblies. Stationary RICE located within 50 yards (46 meters) of the pipeline segment providing power for equipment on a pipeline segment are part of the pipeline segment. Transportation of gas means the gathering, transmission, or distribution of gas by pipeline, or the storage of gas. A building is intended for human occupancy if its primary use is for a purpose involving the presence of humans.

(3) Stationary RICE that are not located on gas pipelines and that have 5 or fewer buildings intended for human occupancy and no buildings with four or more stories within a 0.25 mile radius around the engine. A building is intended for human occupancy if its primary use is for a purpose involving the presence of humans.

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*Residential emergency stationary RICE* means an emergency stationary RICE used in residential establishments such as homes or apartment buildings.

*Responsible official* means responsible official as defined in 40 CFR 70.2.

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

*Site-rated HP* means the maximum manufacturer's design capacity at engine site conditions.

*Spark ignition* means relating to either: A gasoline-fueled engine; or any other type of engine with a spark plug (or other sparking device) and with operating characteristics significantly similar to the theoretical Otto combustion cycle. Spark ignition engines usually use a throttle to regulate intake air flow to control power during normal operation. Dual-fuel

engines in which a liquid fuel (typically diesel fuel) is used for CI and gaseous fuel (typically natural gas) is used as the primary fuel at an annual average ratio of less than 2 parts diesel fuel to 100 parts total fuel on an energy equivalent basis are spark ignition engines.

*Stationary reciprocating internal combustion engine (RICE)* means any reciprocating 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.

*Stationary RICE test cell/stand* means an engine test cell/stand, as defined in subpart PFFFF of this part, that tests stationary RICE.

*Stoichiometric* means the theoretical air-to-fuel ratio required for complete combustion.

*Storage vessel with the potential for flash emissions* means any storage vessel that contains a hydrocarbon liquid with a stock tank gas-to-oil ratio equal to or greater than 0.31 cubic meters per liter and an American Petroleum Institute gravity equal to or greater than 40 degrees and an actual annual average hydrocarbon liquid throughput equal to or greater than 79,500 liters per day. Flash emissions occur when dissolved hydrocarbons in the fluid evolve from solution when the fluid pressure is reduced.

*Subpart* means 40 CFR part 63, subpart ZZZZ.

*Surface site* means any combination of one or more graded pad sites, gravel pad sites, foundations, platforms, or the immediate physical location upon which equipment is physically affixed.

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

***The Smith Pond Generator has a new engine with a rating of 156.9 BHP and displacement of 1.1 liters/cylinder. In accordance with 40 CFR 63.6590(c), the engine must meet the requirements of 40 CFR 60 Subpart IIII and is not subject to any other provisions of 40 CFR 63 Subpart ZZZZ.***

## **Instructions for Form FRA**

- Item 4 & 5.** It is important that facilities review the most recent federal regulations when submitting their permit application to DEQ. Current federal regulations can be found at the following Web site: [http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?&c=ecfr&tpl=/ecfrbrowse/Title40/40tab\\_02.tpl](http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?&c=ecfr&tpl=/ecfrbrowse/Title40/40tab_02.tpl).

**Item 6.** For each applicable subpart identified under items 4-5 conduct a complete regulatory analysis. The facility must follow the procedure given below or obtain permission from DEQ to provide the necessary information using an alternative procedure:

1. Retrieve a TEXT or PDF copy of the applicable federal regulation subpart(s) online at <http://www.gpoaccess.gov/cfr/retrieve.html>
2. Copy and paste the regulation(s) into your DEQ air permit application.
3. Highlight or underline sections in the regulation(s) that are applicable to the source(s).
4. Under each section of the subpart, explain why the source is subject to the section, or why the source is not subject to the section. When providing the explanation use a different font than the regulation (i.e. ***bold, italic***) so that it is easy for the reader to determine the text that the applicant has provided. An example NSPS regulatory analysis is attached. The applicant must provide all necessary information needed to determine applicability. If information is lacking or the analysis is incomplete the application will be determined incomplete.

EPA provides a web site dedicated to NSPS/NESHAP applicability determinations that may be useful to applicants. Follow this link to the applicability determination index [Clean Air Act Applicability Determination Index - Compliance Monitoring - EPA](#). Another useful source of information is the preamble to the regulation which is published in the Federal Register on the date the regulation was promulgated. Federal Registers may be found online at [Federal Register: Main Page](#). The date the regulation was published in the Federal Register is included in the footnotes of the regulation.

5. DEQ will assist in identifying the applicable requirements that the applicant must include in the application but will not perform the required technical or regulatory analysis on the applicant's behalf. Applicants should contact the Air Quality Permit Hotline (1-877-573-7648) to discuss NSPS/NESHAP regulatory analysis requirements or to schedule a meeting.
6. It also benefits facilities to document a non-applicability determination on federal air regulations which appear to apply to the facility but actually do not. A non-applicability determination will avoid future confusion and expedite the air permit application review. If you conduct an applicability determination and find that your activity is not NSPS or NESHAP affected facility an analysis should be submitted using the methods described above.
7. **It is not sufficient to simply provide a copy of the NSPS or NESHAP. The applicant must address each section of the regulation as described above and as shown in the example that is provided.**

**EXAMPLE OF A NSPS REGULATORY ANALYSIS**

[Title 40, Volume 6]  
[Revised as of July 1, 2008]  
From the U.S. Government Printing Office via GPO Access  
[CITE: 40CFR60]

TITLE 40--PROTECTION OF ENVIRONMENT

CHAPTER I--ENVIRONMENTAL PROTECTION AGENCY (CONTINUED)

PART 60 STANDARDS OF PERFORMANCE FOR NEW STATIONARY SOURCES--  
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Subpart H Standards of Performance for Sulfuric Acid Plants

Sec.60.80 Applicability and designation of affected facility.

(a) The provisions of this subpart are applicable to each sulfuric acid production unit, which is the affected facility.

(b) Any facility under paragraph (a) of this section that commences construction or modification after August 17, 1971, is subject to the requirements of this subpart.

***ACME Chemicals, Inc. is proposing to construct after August 17, 1971 a sulfuric acid plant which burns elemental sulfur as defined by 40 CFR 60.81(a). ACME is therefore affected by this subpart.***

***(Be sure to use the terms of the regulation to describe applicability; usually applicability is determined based on a specific date, definition of an affected facility, and rated input capacity. All of the applicability criteria must be addressed by the applicant.)***

***Note - if a determination of non-applicability is being submitted it is not necessary to address the remaining non-applicable regulatory sections. Be sure to provide the applicability determination in terms of the regulation (i.e. construction/modification date, rated input capacity, definition of affected facility).***

Sec.60.81 Definitions.

As used in this subpart, all terms not defined herein shall have the meaning given them in the Act and in subpart A of this part.

(a) Sulfuric acid production unit means any facility producing sulfuric acid by the contact process by burning elemental sulfur, alkylation acid, hydrogen sulfide, organic sulfides and mercaptans, or acid sludge, but does not include facilities where conversion to sulfuric acid is utilized primarily as a means of preventing emissions to the atmosphere of sulfur dioxide or other sulfur compounds.

(b) Acid mist means sulfuric acid mist, as measured by Method 8 of appendix A to this part or an equivalent or alternative method.

***ACME Chemicals, Inc. has read and understands these definitions and used them in providing this regulatory analysis.***

Sec.60.82 Standard for sulfur dioxide.

(a) On and after the date on which the performance test required to be conducted by Sec.60.8 is completed, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any affected facility any gases which contain sulfur dioxide in excess of 2 kg per metric ton of acid produced (4 lb per ton), the production being expressed as 100 percent H<sub>2</sub>/SO<sub>4</sub>/.

***ACME Chemicals, Inc. is subject to this standard and has provided a documented emission inventory (or manufacturer guarantee) which shows compliance.***

Sec.60.83 Standard for acid mist.

(a) On and after the date on which the performance test required to be conducted by Sec.60.8 is completed, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any affected facility any gases which:

(1) Contain acid mist, expressed as H<sub>2</sub>/SO<sub>4</sub>/, in excess of 0.075 kg per metric ton of acid produced (0.15 lb per ton), the production being expressed as 100 percent H<sub>2</sub>/SO<sub>4</sub>/.

***ACME Chemicals, Inc. is subject to this standard and has provided a documented emission inventory (or manufacturer guarantee) which shows compliance.***

(2) Exhibit 10 percent opacity, or greater.

***ACME Chemicals, Inc. understands that this will become a permit condition and has supplied a manufacturer guarantee that the sulfuric acid plant will comply with this standard.***

Sec.60.84 Emission monitoring.

(a) A continuous monitoring system for the measurement of sulfur dioxide shall be installed, calibrated, maintained, and operated by the owner or operator. The pollutant gas used to prepare calibration gas mixtures under Performance Specification 2 and for calibration checks under Sec.60.13(d), shall be sulfur dioxide (SO<sub>2</sub>/). Method 8 shall be used for conducting monitoring system performance evaluations under Sec.60.13(c) except that only the sulfur dioxide portion of the Method 8 results shall be used. The span value shall be set at 1000 ppm of sulfur dioxide.

(b) The owner or operator shall establish a conversion factor for the purpose of converting monitoring data into units of the applicable standard (kg/metric ton, lb/ton). The conversion factor shall be determined, as a minimum, three times daily by measuring the concentration of sulfur dioxide entering the converter using suitable methods (e.g., the Reich test, National Air Pollution Control Administration Publication No. 999-AP-13) and calculating the appropriate conversion factor for each eight-hour period as follows:

$$CF = k[(1.000 - 0.015r)/(r - s)]$$

where:

CF=conversion factor (kg/metric ton per ppm, lb/ton per ppm).  
 k=constant derived from material balance. For determining CF in metric units, k=0.0653. For determining CF in English units, k=0.1306.  
 r=percentage of sulfur dioxide by volume entering the gas converter.  
 Appropriate corrections must be made for air injection plants subject to the Administrator's approval.  
 s=percentage of sulfur dioxide by volume in the emissions to the atmosphere determined by the continuous monitoring system required under paragraph (a) of this section.

(c) The owner or operator shall record all conversion factors and values under paragraph (b) of this section from which they were computed (i.e., CF, r, and s).

***ACME Chemicals, Inc. is not proposing to utilize Sections 60.84(a)-(c) listed above to monitor emissions. Instead ACME Chemicals is utilizing 40 CFR 60.84(d) listed below to monitor emissions of sulfur dioxide.***

(d) Alternatively, a source that processes elemental sulfur or an ore that contains elemental sulfur and uses air to supply oxygen may use the following continuous emission monitoring approach and calculation procedures in determining SO<sub>2</sub>/ emission rates in terms of the standard. This procedure is not required, but is an alternative that would alleviate problems encountered in the measurement of gas velocities or production rate. Continuous emission monitoring systems for measuring SO<sub>2</sub>/, O<sub>2</sub>/, and CO<sub>2</sub>/ (if required) shall be installed, calibrated, maintained, and operated by the owner or operator and subjected to the certification procedures in Performance Specifications 2 and 3. The calibration procedure and span value for the SO<sub>2</sub>/ monitor shall be as specified in paragraph (b) of this section. The span value for CO<sub>2</sub>/ (if required) shall be 10 percent and for O<sub>2</sub>/ shall be 20.9 percent (air). A conversion factor based on process rate data is not necessary. Calculate the SO<sub>2</sub>/ emission rate as follows:

$$Es = (Cs / S) / [0.265 - (0.126 \%O_2/) - (A \%CO_2/)]$$

where:

Es=emission rate of SO<sub>2</sub>/, kg/metric ton (lb/ton) of 100 percent of H<sub>2</sub>/SO<sub>4</sub>/ produced.

Cs/=concentration of SO<sub>2</sub>/, kg/dscm (lb/dscf).

S=acid production rate factor, 368 dscm/metric ton (11,800 dscf/ton) of 100 percent H<sub>2</sub>/SO<sub>4</sub>/ produced.

%O<sub>2</sub>/=oxygen concentration, percent dry basis.

A=auxiliary fuel factor,

=0.00 for no fuel.

=0.0226 for methane.

=0.0217 for natural gas.

=0.0196 for propane.

=0.0172 for No 2 oil.

=0.0161 for No 6 oil.

=0.0148 for coal.

=0.0126 for coke.

%CO<sub>2</sub>/= carbon dioxide concentration, percent dry basis.

Note: It is necessary in some cases to convert measured concentration units to other units for these calculations:

Use the following table for such conversions:

From--	To--	Multiply by--
g/scm.....	kg/scm.....	10 <sup>-3</sup>
mg/scm.....	kg/scm.....	10 <sup>-6</sup>
ppm (SO <sub>2</sub> ).....	kg/scm.....	2.660x10 <sup>-6</sup>
ppm (SO <sub>2</sub> ).....	lb/scf.....	1.660x10 <sup>-7</sup>

**ACME Chemicals, Inc. has elected to use the monitoring requirements of the preceding section.**

(e) For the purpose of reports under Sec.60.7(c), periods of excess emissions shall be all three-hour periods (or the arithmetic average of three consecutive one-hour periods) during which the integrated average sulfur dioxide emissions exceed the applicable standards under Sec.60.82.

**ACME acknowledges that this section applies to the sulfuric acid plant.**

Sec.60.85 Test methods and procedures.

(a) In conducting the performance tests required in Sec.60.8, the owner or operator shall use as reference methods and procedures the test methods in appendix A of this part or other methods and procedures as specified in this section, except as provided in Sec.60.8(b). Acceptable alternative methods and procedures are given in paragraph (c) of this section.

(b) The owner or operator shall determine compliance with the SO<sub>2</sub>/ acid mist, and visible emission standards in Sec. Sec. 60.82 and 60.83 as follows:

(1) The emission rate (E) of acid mist or SO<sub>2</sub>/ shall be computed for each run using the following equation:

$$E = (CQsd) / (PK)$$

where:

E=emission rate of acid mist or SO<sub>2</sub>/ kg/metric ton (lb/ton) of 100 percent H<sub>2</sub>/SO<sub>4</sub>/ produced.

C=concentration of acid mist or SO<sub>2</sub>/, g/dscm (lb/dscf).

Qsd/=volumetric flow rate of the effluent gas, dscm/hr (dscf/hr).

P=production rate of 100 percent H<sub>2</sub>/SO<sub>4</sub>/, metric ton/hr (ton/hr).

K=conversion factor, 1000 g/kg (1.0 lb/lb).

(2) Method 8 shall be used to determine the acid mist and SO<sub>2</sub>/ concentrations (C's) and the volumetric flow rate (Qsd/) of the effluent gas. The moisture content may be considered to be zero. The sampling time and sample volume for each run shall be at least 60 minutes and 1.15 dscm (40.6 dscf).

(3) Suitable methods shall be used to determine the production rate (P) of 100 percent H<sub>2</sub>/SO<sub>4</sub>/ for each run. Material balance over the production system shall be used to confirm the production rate.

(4) Method 9 and the procedures in Sec.60.11 shall be used to determine opacity.

(c) The owner or operator may use the following as alternatives to

the reference methods and procedures specified in this section:

(1) If a source processes elemental sulfur or an ore that contains elemental sulfur and uses air to supply oxygen, the following procedure may be used instead of determining the volumetric flow rate and production rate:

(i) The integrated technique of Method 3 is used to determine the O<sub>2</sub>/ concentration and, if required, CO<sub>2</sub>/ concentration.

(ii) The SO<sub>2</sub>/ or acid mist emission rate is calculated as described in Sec.60.84(d), substituting the acid mist concentration for Cs/ as appropriate.

***ACME Chemicals, Inc. acknowledges that performance tests shall be conducted as specified above.***



## Department of Environmental Quality - Air Quality Division Minor Source Permit to Construct Application Completeness Checklist

This checklist is designed to aid the applicant in submitting a complete permit to construct application.

### I. Actions Recommended Before Submitting Application

- Refer to the Rule. Read the Permit to Construct requirements contained in IDAPA 58.01.01.200-228, Rules for the Control of Air Pollution in Idaho. The Rules are available on DEQ's website (go to <http://adm.idaho.gov/adminrules/rules/idapa58/0101.pdf>).
- Refer to DEQ's Permit to Construct Guidance Document. DEQ has developed a guidance document to aid applicants in submitting a complete permit to construction application. The guidance document is located on DEQ's website (go to [http://www.deq.idaho.gov/air/permits\\_forms/permitting/ptc\\_prepermit\\_guidance.pdf](http://www.deq.idaho.gov/air/permits_forms/permitting/ptc_prepermit_guidance.pdf)).
- Consult with DEQ Representatives. It is recommended that the applicant schedule a pre-application meeting with DEQ to discuss application requirements before submitting the permit to construct application. The meeting can be in person or on the phone. Contact DEQ's Air Quality Hotline at **877-5PERMIT** to schedule the pre-application meeting.
- Submit Ambient Air Quality Modeling Protocol. It is strongly recommended that an ambient air quality modeling protocol be submitted to DEQ at least two (2) weeks before the permit to construct application is submitted. Contact DEQ's Air Quality Hotline at **877-5PERMIT** for information about the protocol.

### II. Application Content

**Application content should be prepared using the checklist below. The checklist is based on the requirements contained in IDAPA 58.01.01.202.**

- Apply for a Permit to Construct. Submit a Permit to Construct application using forms available on DEQ's website at [http://www.deq.idaho.gov/air/permits\\_forms/forms/ptc\\_general\\_application.pdf](http://www.deq.idaho.gov/air/permits_forms/forms/ptc_general_application.pdf).
- Permit to Construct Application Fee. The permit to construct application fee of \$1000 must be submitted at the time the original permit to construct application is submitted. Refer to IDAPA 58.01.01.224. If the permit to construct application is withdrawn or denied and a new application is submitted, a new \$1,000 application fee is required to be submitted. The application fee is not transferable or refundable. The application fee can be paid by check, credit card or Electronic Funds Transfer (EFT). If you choose to pay by credit card or EFT, please refer to the following Access Idaho link:  
<https://www.accessidaho.org/secure/deq/payport/item.html?id=511>  
If you choose to pay by check, enclose the check with your permit to construct application.
- Process Description(s). The process or processes for which construction is requested must be described in sufficient detail and clarity such that a member of the general public not familiar with air quality can clearly understand the proposed project. A process flow diagram is required for each process.
- Equipment List. All equipment that will be used for which construction is requested must be described in detail. Such description includes, but is not limited to, manufacturer, model number or other descriptor, serial number, maximum process rate, proposed process rate, maximum heat input capacity, stack height, stack diameter, stack gas flowrate, stack gas temperature, etc. All equipment that will be used for which construction is requested must be clearly labeled on the process flow diagram.
- Potential to Emit. Submit the uncontrolled potential to emit (pre-control equipment emissions estimates) and the controlled potential to emit (post-control equipment emissions estimates) for all equipment for which construction is requested. Any limit on the equipment for which is construction is requested may become a



**Department of Environmental Quality**  
1410 N. Hilton, Boise, ID 83706  
For assistance, call the  
Air Permit Hotline - 1-877-5PERMIT

AQ-CH-P008

limit on that equipment in the permit to construct.

- Potential to Emit and Modeled Ambient Concentration for All Regulated Air Pollutants. All proposed emission limits and modeled ambient concentrations for all regulated air pollutants must demonstrate compliance with all applicable air quality rules and regulations. Regulated air pollutants include criteria air pollutants, toxic air pollutants listed pursuant to IDAPA 58.01.01.585 and 586, and hazardous air pollutants listed pursuant to Section 112 of the 1990 Clean Air Act Amendments (go to <http://www.epa.gov/ttn/atw/188polls.html>). Describe in detail how the proposed emissions limits and modeled ambient concentrations demonstrate compliance with each applicable air quality rule and regulation. It is requested that emissions calculations, assumptions, and documentation be submitted with sufficient detail so DEQ can verify the validity of the emissions estimates.
- Scaled Plot Plan. It is required a scaled plot plan be included in the permit to construct application and it must clearly label the location of each proposed process and the equipment that will be used in the process.
- List all Applicable Requirements. All applicable requirements must be cited by the rule or regulation section/subpart that applies for each emissions unit.
- Certification of Permit to Construct Application. The permit to construct application must be signed by the Responsible Official and must contain a certification signed by the Responsible Official. The certification must state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. Refer to IDAPA 58.01.01.123.
- Submit the Permit to Construct Application. Submit the permit to construct application and application fee to the following address:

Air Quality Program Office – Application Processing  
Department of Environmental Quality  
1410 N. Hilton  
Boise, ID 83706-1255

## Department of Environmental Quality - Air Quality Division Toxic Air Pollutant (TAP) Preconstruction Compliance Application Completeness Checklist

This checklist is designed to aid the applicant in submitting a complete preconstruction compliance demonstration for toxic air pollutants (TAPs) in permit to construct applications. The applicant must place a check mark in the box for each section below that applies.

I. Actions Needed Before Submitting Application

- Refer to the Rule. Read the Demonstration of Preconstruction Compliance with Toxic Standards contained in IDAPA 58.01.01.210 (Rules Section 210) Rules for the Control of Air Pollution in Idaho (Rules). Toxic air pollutants (TAPs) are regulated in accordance with Rules Section 210 only from emission units constructed or modified on or after July 1, 1995.

Determine if a new (constructed after June 30, 1995) emission unit has the potential to emit a TAP listed in IDAPA 58.01.01.585 (Rules Section 585) or IDAPA 58.0101.586 ( Rules Section 586). Potential toxic air pollutants can be determined by reviewing commonly available emission factors, such as EPA's AP-42, or calculating emissions using a mass balance. For TAPs that are emitted but not listed in Rules Section 585 and 586, contact the Air Permit Hotline at 877-5PERMIT.

Determine if the proposed construction or modification is exempt from the need to obtain a permit to construct in accordance with IDAPA 58.01.01.220-223. Use the Exemption Criteria and Reporting Requirements for TAPs IDAPA 58.01.01.223 checklist to assist you in the exemption determination. If the source does not qualify for an exemption in accordance with IDAPA 58.01.01.220-223 complete the following checklist and submit it with the permit application. Please note that fugitive TAP emissions are not included in the IDAPA 58.01.01.223 exemption determination, but fugitive TAP emissions are included in the analysis if a permit is required. Stated another way: if a source is required to obtain a Permit to Construct because it does not meet the exemption criteria for any reason all TAP emissions, including fugitive TAPs, are included in the compliance demonstration in the application for the permit to construct. Should you have any questions regarding the fact that all TAPs, including fugitive TAPs, are included in the TAP preconstruction compliance demonstration submitted with a permit to construct application you may call the Air Permit Hotline at 877-5PERMIT.

**Will the new or modified source result in new or increased potential emissions of TAPs?**

- Yes. If yes, continue to section II.
- No. If no, no further action is required.

II. Application Content

If a new source has the potential to emit a TAP, or if a modification to an existing source increases the potential to emit of a TAP, then one of the following methods (A-J) of demonstrating TAP preconstruction compliance must be documented for each TAP. Standard methods are one of A-C. The applicant may also use one of the specialized methods in D-J. Fugitive TAP emissions shall be included in the analysis. The compliance methods are based on the requirements of Rules Section 210. Applicants are often able to demonstrate preconstruction TAP compliance using a combination of methods A and B.

Emission Calculations

Emissions calculation methodologies used are dependent on whether a specific TAP is a non-carcinogen or a carcinogen and whether the compliance method chosen from the list below calls

for controlled or uncontrolled emissions. Non-carcinogens are regulated based on a 24-hour averaging period and emission rates used for comparison to the non-carcinogen screening emissions level (EL) should be the maximum controlled or uncontrolled emissions quantity during any 24-hour period divided by 24. Carcinogens are regulated as a long term increment and emission rates used for comparison to the carcinogen EL should be the maximum controlled or uncontrolled emissions quantity during any 1 year period divided by 8760.

### Modeling Analyses

Atmospheric dispersion modeling is required when controlled TAP emissions rates exceed ELs. Modeling analyses should be conducted in accordance with IDAPA 58.01.01.210.03. Quantification of Ambient Concentrations and the State of Idaho Air Quality Modeling Guideline ([http://www.deq.idaho.gov/air/data\\_reports/publications.cfm#model](http://www.deq.idaho.gov/air/data_reports/publications.cfm#model)). For non-carcinogen 24-hour increments, compliance is demonstrated using the maximum modeled 24-hour-averaged concentration from available meteorological data (typically a five-year data set). For carcinogen long-term increments, compliance is demonstrated using the maximum modeled average concentration for the duration of the data set (one-year to five-year data set).

A submitted modeling report should clearly specify modeled emissions rates and results. All electronic model input files should be submitted, including BPIP input files.

### Poly aromatic Hydrocarbons

Questions often arise regarding polyaromatic hydrocarbons as they are listed in Rules Section 586 of the Rules. The following two points are provided for clarification.

- 1) The following group of 7 PAH's (i.e. named POM), shall be combined and considered as one TAP equivalent in potency to benzo(a)pyrene:  
Benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, dibenzo(a, h)anthracene, chrysene, indeno(1,2,3,-cd) pyrene, benzo (a) pyrene
- 2) All other PAH's are considered as a single pollutant and the emission of each is compared the PAH increment listed in Rules Section 586.

### Compliance Methods

Fill in letter(s) (A-J) from the list below for TAP compliance demonstration method(s) used: \_\_\_\_\_.

#### A. TAPs Compliance Using Uncontrolled Emissions (Rules Section 210.05)

- Calculate the uncontrolled emissions (Rules Section 210.05) of each TAP from new emissions units. Uncontrolled emission rates are emissions at maximum capacity without the effect of physical or operational limitations. See Quantification of Emission Rates (Rules Section 210.02). Show calculations and state all assumptions.
- Calculate the increase of TAP emissions from modified emissions units. Show calculations and state all assumptions. The increase in emissions for a modified emission unit is determined by subtracting the potential to emit the TAP before the modification from the uncontrolled potential to emit after the modification. In conducting this analysis please note the following for TAP emission rate increase determinations:

Uncontrolled emission rates after the modification are emissions at maximum capacity without the effect of physical or operational limitations.

When determining the emissions increase from existing permitted emissions units the emission rate before the modification is equivalent to the emission limits contained in the permit for the

TAPs or, if there no emission limits in the permit, by determining what the emission rate is under the physical or operational limitations contained in the permit.

- Aggregate the uncontrolled emissions for each TAP from all new emissions units with the increase in emissions from all modified emissions units.
- If the aggregated emissions increase for each TAP from the new and modified units, as determined above, are less than or equal to the respective TAP screening emissions level (EL) then preconstruction compliance with toxic standards has been demonstrated and no further analysis is required. Submit a table comparing the uncontrolled emissions rate to the applicable EL.

If aggregated emissions are greater than the respective screening emissions level (EL) for any pollutants, use another compliance demonstration method for those pollutants, such as methods B, C, or D.

**B. TAP Compliance Using Uncontrolled Ambient Concentration (Rules Section 210.06)**

- Determine the uncontrolled emissions of each TAP from new emission units and the increase in emissions from all modified emissions units as described above in compliance Method A. Show calculations and state all assumptions.
- Model the uncontrolled emissions of each TAP from new emissions units and the increase in emissions from all modified emissions units.
- If the uncontrolled ambient concentration is less than or equal to the acceptable ambient concentration increment listed in Rules Section 585 and 586 no further procedures for demonstrating preconstruction compliance will be required for that TAP as part of the application process. Submit a table comparing uncontrolled ambient concentrations to the applicable acceptable ambient concentration.

**C. TAP Compliance Using Controlled Ambient Concentrations (Rules Section 210.08)**

- Determine the controlled emissions from new emissions units and the controlled emission increase from modified emissions units. Show all calculations and state all assumptions, including the control methods.
- Model the controlled emissions of each TAP from new emissions units and the increase in controlled emissions from all modified emissions units.

TAP emissions levels (EL) included in Rules Section 585 and 586 are derived based on generic modeling. If the sum the of emissions from new and modified sources is below the EL compliance is demonstrated without the need to conduct site-specific dispersion modeling.

- If the controlled ambient concentration from emission increases from new emissions units and modified emissions units is less than the applicable acceptable ambient concentration no further procedures for demonstrating preconstruction compliance are required.
- The Department shall include an emission limit for the TAP in the permit to construct that is equal to or, if requested by the applicant, less than the emission rate that was used in the modeling (Rules Section 210.08.c).

In some instances the Department may consider a throughput limit or other inherently-limiting operational restriction in a permit as an effective emission limit for the TAP, rather than including a specific emission rate limit.. Note that the applicant may model uncontrolled emissions as described in compliance Method B in an attempt to avoid TAPs emissions limitations.

**D. TAPs Compliance for NSPS and NESHAP Sources (Rules Section 210.20)**

- If the owner or operator demonstrates that the TAP emissions from the source or modification is regulated by 40 CFR Part 60, 40 CFR Part 61 or 40 CFR Part 63, no further procedures for demonstrating preconstruction compliance will be required for that TAP.
- Provide a demonstration that the TAP is regulated under 40 CFR Part 60, 40 CFR Part 61 or 40 CFR Part 63. This demonstration must be specific for each TAP emitted.

***P4 Note - 40 CFR §63.6590 (c)(7) – If the RICE is less than or equal to 500 BHP then the requirements of 40 CFR part 60 subpart IIII must be met. See FRA Form for applicability determination.***

**E. TAP Compliance Using Net Emissions (Rules Section 210.09)**

An applicant may use TAP net emissions to show preconstruction compliance; however this analysis may require more work than some of the others procedures available to demonstrate preconstruction compliance. When netting, all emissions increases and decreases of the TAP that have occurred within five years must be included in the analysis as described below.

- Determine the net emission increase for a TAP. A net emissions increase shall be an emission increase from a particular modification plus any other increase and decreases in actual emissions at the facility that are creditable and contemporaneous with particular modification (Rules Section 210.09). Show all calculations and state all assumptions.
- A creditable increase or decrease in actual emissions is contemporaneous with a particular modification if it occurs within five (5) years of the commencement of the construction or modification (Rules Section 210.09.a).

Actual emissions are (Rules Section 006.03):

- In general, actual emissions as of a particular date shall equal the average rate, in tons per year, at which the unit actually emitted the pollutant during a two year period which precedes the particular date and which is representative of normal source operation. The Department shall allow the use of a different time period upon a determination that it is more representative of normal source operation. Actual emissions shall be calculated using the unit's actual operating hours, productions rates, and types of materials processed, stored, or combusted during the selected time period.
- The Department may presume that the source-specific allowable emissions for the unit are equivalent to actual emissions of the unit.
- For any emission unit (except electric utility steam generating units) that has not begun normal operations on the particular date, actual emissions shall equal the potential to emit of the unit on that date.
- Do not include emissions increases from emission units that have an uncontrolled emission rate that is 10% or less than the applicable screening emission level (EL) in Rules Section 585 and 586 (Rules Section 007.09.c.ii) and do not include emission increases from environmental remediation sources (Rules Section 007.09.c.iii). Show all calculations and state all assumptions.
- If the net emission increase is less than or equal to the applicable screening emissions level (EL) listed in Rules Section 585 and 586, no further procedures for demonstrating preconstruction compliance will be required (Rules Section 210.09.c).

- The Department shall include emission limits and other permit terms for the TAP in the permit to construct that will assure that the facility will be operated in the manner described in the preconstruction compliance demonstration (Rules Section 210.09.d).

In some instances the Department may consider a throughput limit or other inherently-limiting operational restriction in a permit as an effective emission limit for the TAP, rather than including a specific emission rate limit.

**F. TAP Compliance Using Net Ambient Concentration (Rules Section 210.10)**

- Determine the emission increase from the new source or modification, and all other creditable emission increases and decrease using the methods described above in compliance Method E.
- Model the emissions increases and decreases for each TAP. Modeling TAP decreases is accomplished by using negative valued emissions rates in the model input.
- If the net ambient concentration is less than or equal to the applicable ambient concentration increment listed in Rules Section 585 and 586, no further procedures for demonstrating preconstruction compliance are required.
- The Department shall include emission limits and other permit terms for the TAP in the permit to construct that will assure that the facility will be operated in the manner described in the preconstruction compliance demonstration (Rules Section 210.10.d).

In some instances the Department may consider a throughput limit or other inherently-limiting operational restriction in a permit as an effective emission limit for the TAP, rather than including a specific emission rate limit.

**G. TAP Compliance Using T-RACT Ambient Concentration for Carcinogens (Rules Section 210.12)**

The applicant may use T-RACT to demonstrate preconstruction compliance for TAPs listed in Rules Section 586 only.

T-RACT is an emissions standard based on the lowest emission of TAPs that a particular source is capable of meeting by application of control technology that is reasonably available, as determined by the Department, considering technological and economic feasibility. If control technology is not feasible, the emission standard may be based on the application of a design, equipment, work practice or operational requirement, or combination thereof (Rules Section 007.16).

**T-RACT Submittal Requirements**

- The applicant shall submit the following information to the Department identifying and documenting which control technologies or other requirements the applicant believes to be T-RACT (Rules Section 210.14).

The technical feasibility of a control technology or other requirements for a particular source shall be determined considering several factors including but not limited to:

- Process and operating procedures, raw materials and physical plant layout.
- The environmental impacts caused by the control technology that can not be mitigated, including but not limited to, water pollution and the production of solid wastes.

- The energy requirements of the control technology.

The economic feasibility of a control technology or other requirement, including the costs of necessary mitigation measures, for a particular source shall be determined considering several factors including, but not limited to:

- Capital costs.
  - Cost effectiveness, which is the annualized cost of the control technology divided by the amount of emission reduction.
  - The difference in costs between the particular source and other similar sources, if any, that have implemented emissions reductions.
- Compare the source's or modification's approved T-RACT ambient concentration to the applicable acceptable ambient concentration increment listed in Rules Section 586 multiplied by a factor of 10. If the sources approved T-RACT concentration is less than or equal to 10 times the applicable acceptable ambient concentration increment listed in Rules Section 586, no further procedures for demonstrating preconstruction compliance will be required.
  - If an application is submitted to the Department without T-RACT and determined complete, and T-RACT is later determined to be applicable the completeness determination of the application will be revoked until a supplemental application is submitted and determined complete. When the supplemental application is determined complete, the timeline for agency action shall be reinitiated (Rules Section 210.13.b).
  - If the Department determines that the source has proposed T-RACT, the Department shall develop emission standards to be incorporated into a permit to construct.

In some instances, the Department may consider a throughput limit or other inherently limiting operational restriction in a permit as an effective emission limit for the TAP, rather than including a specific emission rate limit.

**H. TAP Compliance Using the Short Term Source Factor (Rules Section 210.15)**

- For short term sources, the applicant may utilize a short term adjustment factor of ten (10) only for a carcinogenic pollutant listed in Rules Section 586. For a carcinogen listed in Rules Section 586 multiply either the applicable acceptable ambient concentration increment or the screening emission rate (EL), but not both, by ten (10) to demonstrate preconstruction compliance (Rules Section 210.15).
- A short term source is any new stationary source or modification to an existing source, with an operational life no greater than five (5) years from the inception of any operations to cessation of actual operations (Rules Section 210.15).

**I. TAP Compliance for Environmental Remediation Sources (Rules Section 210.16)**

- For remediation sources subject to or regulated by the Resource Conservation and Recovery Act and the Idaho Rules and Standard for Hazardous Waste, or the comprehensive Environmental Response, Compensation and Liability Act or a consent order, if the estimated ambient concentration is greater than the acceptable ambient impact increment listed in Rules Section 585 and 586, Best Available Control Technology shall be applied and operated until the estimated uncontrolled emission from the remediation source are below the applicable acceptable ambient concentration increment (Rules Section 210.16).

**J. TAP Compliance Using Offset Ambient Concentration (Rules Section 210.11)**

- Contact the Department prior to proposing to utilize Offset Ambient Concentrations to demonstrate preconstruction compliance.
- Emission offsets must satisfy the requirements for emission reduction credits (Rules Section 460).
  - The proposed level of allowable emissions must be less than the actual emissions of the emissions units providing the offsets (Rules Section 460.01).
  - An air quality permit must be issued that restricts the potential to emit of the emission unit providing the offset.
  - Emission reduction imposed by local, state or federal regulations or permits shall not be allowed.
- Compare the source's or modifications approved emission offset ambient concentration to the applicable acceptable ambient concentration listed in Rules Section 585 and 586. If the source's or modifications approved offset concentration is less than the acceptable ambient concentration listed in Rules Section 585 and 586, no further procedures for demonstrating preconstruction compliance will be required.
- The Department shall include emission limits and other permit terms for the TAP in the permit to construct that will assure that the facility will be operated in the manner described in the preconstruction compliance demonstration (Rules Section 210.10.d).

**APPENDIX B**  
**Emissions Calculations**

# Calculation of Criteria Pollutants - Smith Pond Generator

## CI RICE ENGINES

Monsanto Smith Pond Engine

Unit Capacity 156.9 hp  
 Stack temperature 972 ° F  
 Stack flow 618 ACFM  
 Fuel Consumption 29.8 gal/hr  
 Annual Operating Hours 8760 hr/yr

117 kW

### Stack Emissions:

PM-2.5 <sup>1</sup>	
PM-10 <sup>2</sup>	
NOx emissions <sup>2</sup>	
HC <sup>2</sup>	
CO emissions <sup>2</sup>	
SO <sub>2</sub> emissions	

### Emission Rates

0.204 g/kWh	→	0.000335 lb/hp-hr
0.210 g/kWh	→	0.000345 lb/hp-hr
3.520 g/kWh	→	0.005787 lb/hp-hr
0.210 g/kWh	→	0.000345 lb/hp-hr
1.150 g/kWh	→	0.001891 lb/hp-hr
Fuel dependant - see table below		

1 - PM<sub>2.5</sub> assumed = to 97% of PM<sub>10</sub> rate based on USEPA Guidance "Exhaust and Crankcase Emission Factors for Nonroad Engine Modeling - Compression-Ignition" EPA 420-R-10-018 July 2010

2 - Emission rates provided by Caterpillar Engine Certification Dept (Attached email of 06/21/12)

1kW = 1.341hp  
 1lb = 453.59g

### SO<sub>2</sub> Emission Factor = (Fuel Density) x (Sulfur Content of Fuel) x (lb SO<sub>2</sub>/lb S<sub>2</sub>)

Fuel Density = 6.8 lb/gal  
 Sulfur Content of Fuel = 15 ppm  
 lbs SO<sub>2</sub> per lb S<sub>2</sub> = 1.998 lb

each unit (full load) = 29.8 gal/hr

SO<sub>2</sub> emissions

0.00020 lb SO<sub>2</sub>/gal →

	lb/hp-hr	Smith Pond Engine Hourly and Annual PTE Emissions
	0.000335	lb/hr
	0.000345	0.230 tpy
	0.005787	0.054 0.237
	0.000345	0.908 3.977
	0.001891	0.054 0.237
		0.297 1.299

lb SO <sub>2</sub> /gal	lb SO <sub>2</sub> /hr	tpy
0.00020	0.00607	0.02660

## Calculation of Toxic Air Pollutants - Smith Pond Generator

Heat Content of Fuel: 137,030 Btu/gal  
 Fuel Required Typical: 169,681 gals/year  
 Maximum Fuel Required: 261,048 gals/year  
 Exhaust Flow rate 17.5 m<sup>3</sup>/min

TAP/HAP <sup>1</sup>	Toluene N	Benzene <sup>2</sup> C	Formaldehyde C	Acetaldehyde C	Acrolein N	Naphthalene N	Xylene N
Carcinogen (C)/Non-carcinogen (N) Screening Emission Level in lbs/hr (SEL)	25	0.0008	0.00051	0.003	0.017	3.33	29
<b>Emission Factors</b>							
(lb/MMBTU)	0.000281	0.000776	0.000079	0.000025	0.000008	0.000130	0.000193
(lb/1000 gals)	0.039	0.106	0.011	0.003	0.001	0.018	0.026
<b>Emissions (tons/year)</b>							
Typical	0.0033	0.009	0.0009	0.00029	0.00009	0.0015	0.0022
Maximum	0.0050	0.014	0.0014	0.00045	0.00014	0.0023	0.0035
<b>Emissions (lbs/hr)</b>							
Average	0.001	0.002	0.0002	0.00007	0.00002	0.0003	0.0005
Maximum	0.001	0.0032	0.0003	0.00010	0.00003	0.0005	0.0008
<b>Emissions (mg/m<sup>3</sup>)</b>							
Average	0.322	0.890	0.090	0.029	0.009	0.149	0.221
Maximum	0.496	1.369	0.139	0.044	0.014	0.229	0.340

Calculations:

Fuel burned (gal) X Heat Content (Btu/gal) X HAP Factor (lb/MMBtu) / Conversion Factor (1 MMBtu/1,000,000 Btu)

Example:

1,000 gallons of fuel burned, Xylene emitted  
 1,000 X 137,030 X .000193 / 1,000,000 = 0.026 lbs of xylene/1000 gal

NOTES:

- Hazardous Air Pollutants (HAPs) are based on Tables 3.4-3 and 3.4-4 AP-42 factors for Large Stationary Diesel Engines in HAPs AP-42
- Preconstruction compliance with toxic air pollutant (TAP) standards contained in IDAPA 58.01.01.210 (Rules for the Control of Air Pollution in Idaho) determined through compliance with NSPS 40 CFR 60 Subpart III. See TAP completeness checklist included with this Application Package.

**APPENDIX C**

**Technical Support Document – Monsanto Smith Pond Modeling  
Report 2013 – 20Feb2013**

## **Bernie Evans**

---

**From:** steven.syburg@erm.com  
**Sent:** Wednesday, March 13, 2013 11:23 AM  
**To:** Bernie Evans  
**Cc:** Matt Mihalek  
**Subject:** FW: FW: Emissions Data for Monsanto Gen Set Engine S/N E5M02525, Engine Family BPKXL04.4NJ1

forwarding from my archive, let me know if the attachment does not transfer.

Steve

-----Original Message-----

**From:** bernie.evans@erm.com  
**Sent:** 21 Jun 2012 03:12 PM  
**To:** steven.syburg@erm.com; lance.spencer@monsanto.com; putri.jati@erm.com  
**Subject:** FW: Emissions Data for Monsanto Gen Set Engine S/N E5M02525, Engine Family BPKXL04.4NJ1

Steve,

We can make progress now on the RICE engine emissions.

Thnx,

BE

Bernard Evans, P.E.  
Environmental Resources Management  
700 W. Virginia St. Suite 601  
Milwaukee, WI 53204  
414.289.9505 Office  
414.687.8447 Mobile  
44.289.9552 Facsimile

---

**From:** Kurt Flora [mailto:KurtFlora@wseco.com]  
**Sent:** Thursday, June 21, 2012 8:58 AM  
**To:** Bernie Evans  
**Cc:** SPENCER, LANCE (AG/1850); Steven Syburg; Kurt Flora  
**Subject:** RE: Emissions Data for Monsanto Gen Set Engine S/N E5M02525, Engine Family BPKXL04.4NJ1

Good Morning Bernie,

Below is the response from the Engine Certification Help Desk to your request.

Kurt Flora  
Western States Equipment  
Technical Communicator  
Office 208-947-4554

Cell 208-860-4048  
kurtflora@wseco.com

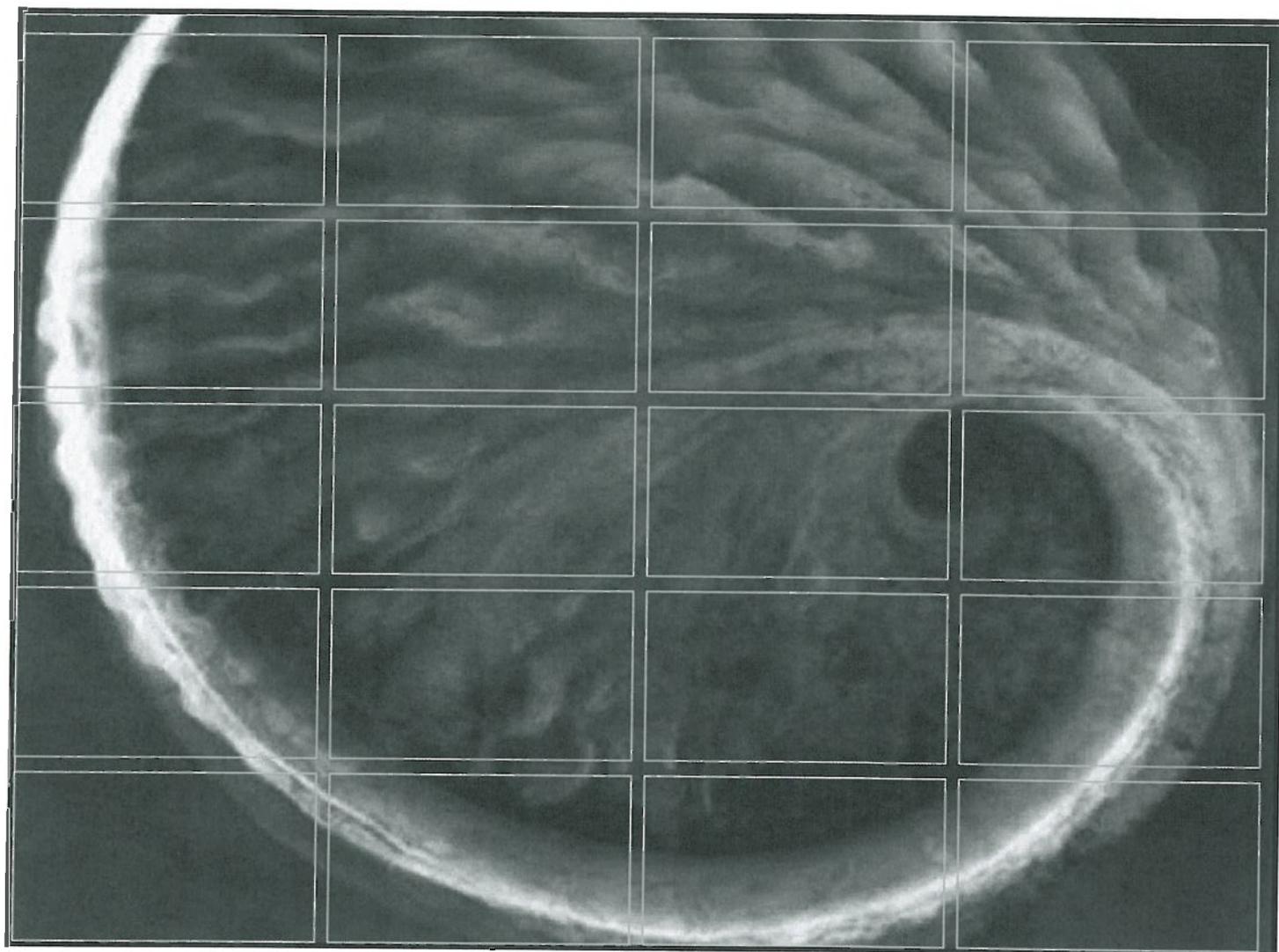
**From:** EngineCertificationHelp  
**Sent:** Thursday, June 21, 2012 5:48 AM  
**To:** Kurt Flora  
**Subject:** Re: Emissions Data for Monsanto Gen Set Engine S/N E5M02525, Engine Family BPKXL04.4NJ1

Please find attached the requested emissions data -

PM (g/kWh) = 0.210  
NOx (g/kWh) = 3.520  
HC (g/kWh) = 0.210  
CO (g/kWh) = 1.150

Kind regards  
Engine Certification Help Desk

---



## **Technical Support Document**

**Air Quality Impact Analyses for Nitrogen Dioxide  
from the Smith Pond Generator at the South  
Rasmussen Mine**

**P4, LLC  
Caribou County, Soda Springs, Idaho**

**March 2013**

*Delivering sustainable solutions in a more competitive world*



**Air Quality Impact Analyses for Nitrogen Dioxide  
from the Smith Pond Generator at the South  
Rasmussen Mine**

**P4, LLC  
Caribou County, Soda Springs, Idaho**

**March 2013**

**Project # 0167507**



---

**Name**  
**Dave Jordan, P.E.**  
*Principal-in-Charge*



---

**Bernard Evans, P.E.**  
*Project Manager*

**Environmental Resources Management**  
700 W. Virginia St. Suite 601

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- B     *Emission Source Parameters***

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- 4-1    *SIL Modeling Analysis Results for Annual and 1-hr NO<sub>2</sub>***
- 4-2    *Full Facility Modeling Results for 1-hr NO<sub>2</sub>***

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- 2-1    *Aerial View of the Facility***
- 3-1    *Receptor Grid for Ambient Air Quality Impact Analyses***

**INTRODUCTION**

P4 Production, LLC (P4) is submitting an air permit to construct (PTC) application for the Smith Pond generator at the South Rasmussen Mine. The South Rasmussen Mine is a phosphorous ore mine located in Caribou County, 18 miles northeast of Soda Springs, Idaho. The UTM coordinates at the approximate center of the property are 471,500 meters E, 4,744,410 meters N (NAD 83, Zone 12). An aerial view of the facility is provided in Figure 1-1.

P4 is planning to install an engine generator that will be used to run evaporation devices at the Smith Pond site during the summer months. The proposed generator is not an emergency generator. As part of the PTC application, P4 has performed air quality impact analyses for nitrogen dioxide (NO<sub>2</sub>) resulting from the addition of the engine generator to ensure that ambient air concentrations comply with the National Ambient Air Quality Standards (NAAQS) 1-hour and annual NO<sub>2</sub> standards. The analyses include atmospheric dispersion modeling using a U.S. EPA approved model to simulate the downwind transport and predicted off-site concentrations of nitrogen dioxide.

Section 2.0 presents a description of the generator. Section 3.0 provides a description of the dispersion model protocol, including databases, characterization of the study area, and an emissions inventory for the air quality impacts assessment. Section 4.0 reports the results of the ambient air quality impact analysis and provides interpretation, analysis, and comparison of the predicted concentrations with the applicable AAC. Section 5.0 summarizes the results of the air quality impact analyses.

**DESCRIPTION OF THE NEW ENGINE GENERATOR**

P4 is proposing to install a 100 kilowatt (kW) diesel-fired engine generator at the South Rasmussen phosphorus ore mine in Caribou County, Idaho. The generator will be used to run evaporation devices at the Smith Pond during the summer months. The proposed generator is not an emergency generator. Emissions from the new source will be vented to the atmosphere through a vertical stack. Emission rates and source location for the New Smith Pond Generator are summarized in Table 2-1. Emissions from the New Smith Pond Generator were estimated based on emission factors obtained from the engine vendor and calculations are provided in Appendix A.

**Table 2-1  
New and Existing Sources Emissions Inventory**

Source Description	Source ID	Coordinates (m)		NO <sub>x</sub> Emission Rates (lb/hr)
		Eastings (X)	Northings (Y)	
New Smith Pond Generator	NEWGEN	469,977.00	4,745,078.00	0.908

Figure 2-1 shows the location where the new engine generator is anticipated to occur, the location of existing engine generators, and the ambient air boundary which is defined by a fence. This ambient air boundary was previously approved for the P4 Horseshoe Pond Generator Project in 2011.

**Figure 2-1.**  
**Aerial View of the Facility and Location of New Emission Source**



### 3.0

## ***DISPERSION MODEL, DATABASES, AND ANALYSES FOR AIR QUALITY IMPACT EVALUATION***

Air quality modeling analyses were performed to assess the ambient air quality impact of the proposed installation of an engine generator. Criteria pollutants need to be modeled if their potential to emit (PTE) exceeds applicable Idaho Department of Environmental Quality (DEQ) modeling thresholds contained in Table 2 of the State of Idaho Guideline for Performing Air Quality Impact Analyses. Any toxic air pollutants (TAPs) will be modeled if their potential to emit exceeds the screening emission levels (EL) as described in Idaho Administrative Procedure Act (IDAPA) 58.01.01.585.

There are two levels of modeling thresholds as summarized in Table 2 of the State of Idaho Guideline for performing Air Quality Impact Analyses: Level I Thresholds, which are thresholds emission rates below which modeling analysis will not be required, except in unique situations, and Level II Thresholds, which are the conditional thresholds that are applied on a case-by-case basis. Based on this determination, modeling analysis is required only for Annual NO<sub>2</sub> and 1-hr NO<sub>2</sub> because hourly and annual NO<sub>x</sub> PTE from the new source exceed the applicable Level I Threshold. Modeling analysis for TAP is not required as concentrations of TAPs from the proposed engine generator are below the screening levels.

Dispersion modeling analyses were performed using AERMOD to demonstrate compliance with the primary and secondary NAAQS levels for annual and 1-hour NO<sub>2</sub>. A detailed description of the modeling approach and data requirements for the assessment of the air quality impact is included in this section.

### 3.1

## ***DESCRIPTION OF AIR QUALITY DISPERSION MODEL***

The modeling was performed using the American Meteorological Society/Environmental Protection Agency Regulatory Model (AERMOD), version 12345. AERMOD is an EPA-approved, steady state Gaussian plume model capable of modeling multiple sources in simple and complex terrain. AERMOD is the model currently approved for industrial sources. Regulatory default settings were used, including the following:

- receptor elevations and hill scales;

- boundary layer parameters calculated by AERMET;
- regulatory default model parameters, including:
  - calm and missing data treatment
  - buoyancy induced dispersion
  - stack-tip downwash
  - direction specific building downwash.

Elevated emission sources at the plant may be influenced by aerodynamic downwash if buildings are present nearby. Downwash effects were not included in this analysis as there were no nearby buildings.

## 3.2 *DATABASES FOR AIR QUALITY EVALUATION*

The databases required for input to the dispersion model included emission source parameters, meteorological data, receptor points, and terrain heights for all sources, buildings, and receptors.

### 3.2.1 *Emission Source Parameters*

The emission inventory of the proposed engine generator and existing engine generators on site is presented in Table 3-1. Emission calculations for the New Smith Pond Generator are provided in Appendix A. Emissions from the existing Horseshoe Generators were obtained from previous modeling analyses performed for this site. Summary of emission source parameters are contained in Appendix B.

**Table 3-1  
New and Existing Sources Emissions Inventory**

Source Description	Source ID	Coordinates (m)		NO <sub>x</sub> Emission Rates (lb/hr)
		Eastings (X)	Northings (Y)	
New Smith Pond Generator	NEWGEN	469,977.00	4,745,078.00	0.908
Existing Horseshoe Generator - 1	GEN1	470,244.54	4,745,373.55	0.992
Existing Horseshoe Generator - 2	GEN2	470,869.11	4,745,275.98	3.333
Existing Horseshoe Generator - 3	GEN3	470,869.11	4,745,275.98	3.333
Existing Horseshoe Generator - 4	GEN4	470,869.11	4,745,275.98	0.351

**3.2.2 Meteorological Data**

The meteorological data used in the dispersion modeling analyses consisted of 5 years (2004-2008) of on-site surface observations (supplemented by nearby Pocatello, Idaho surface data) and coincident upper air observations from the Boise Air Terminal, Idaho National Weather Service site. This data was provided by DEQ and processed with AERMET version 11059.

**3.2.3 Receptor Grids**

The dispersion modeling analyses were performed using a receptor grid consisting of 6,058 receptors that were used for previous modeling analyses for this facility. The proposed receptors extend to 4,500 meters (m) to the north and south from the facility's center point and 6,000 m to the east and west from the facility center point.

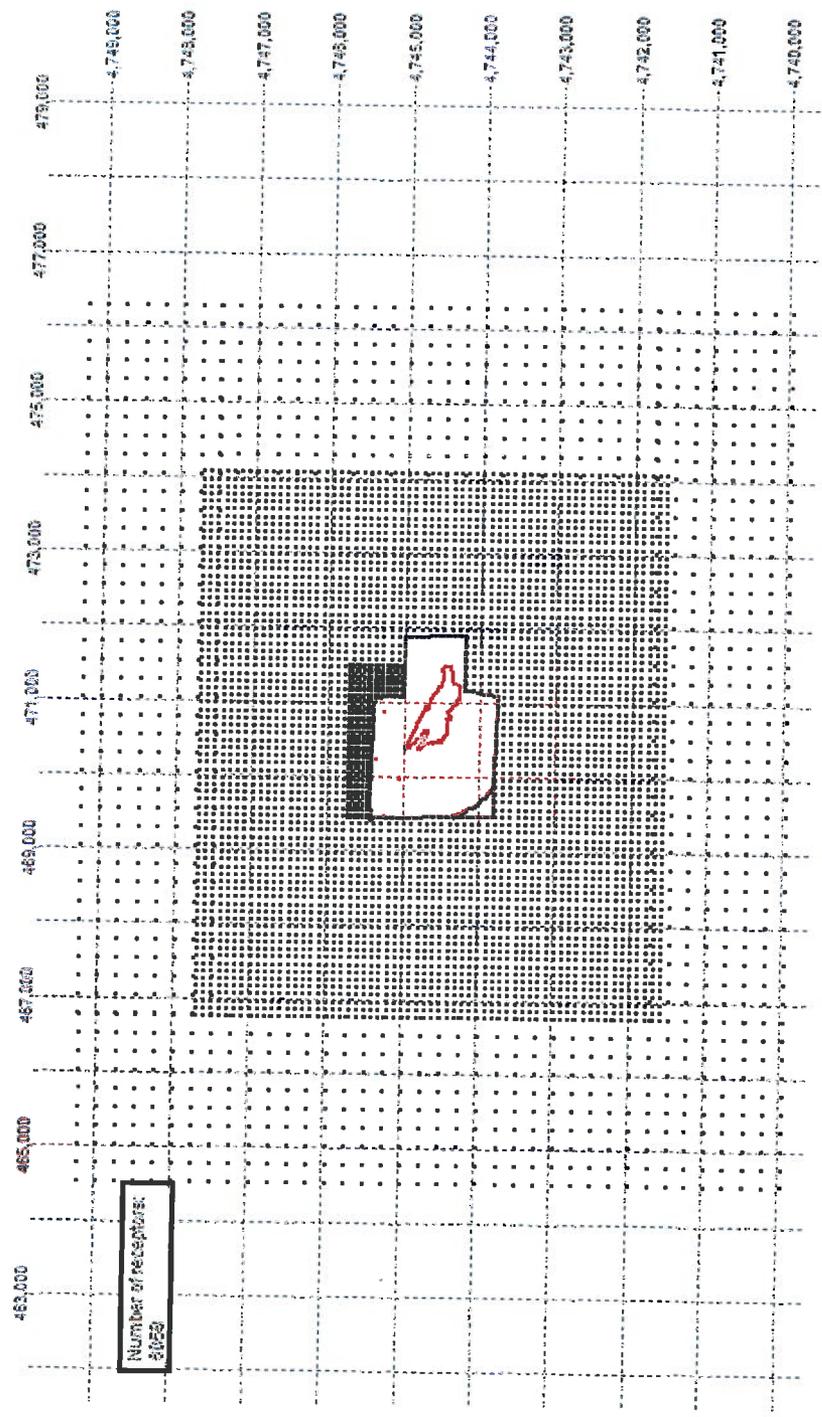
The receptor spacing is as follows:

1. 50 m spacing along the facility fence-line;
2. 100 m spacing fence-line to 3,750 m east-west and to 3,000 m north-south from the facility center point;

3. 250 m spacing from 3,750 m to 6,000 m east-west and to 3,000 m to 4,500m north-south from the facility center point; and
4. 50-m spacing for extra receptors placed near the north facility fenceline.

The complete receptor grid is shown in Figure 3-1. The latest version of the AERMAP program (version 11103), with terrain National Elevation Dataset (NED) TIF files was used to develop hill scale and terrain elevation inputs for each receptor. All coordinates were based on the NAD83 datum.

**Figure 3-1.  
Receptor Grid for Ambient Air Quality Impact Analyses**



### 3.3

#### *METHODOLOGY FOR AIR QUALITY MODELING*

The emissions from the new source were modeled to determine maximum predicted off-site concentrations at each receptor in the model. The maximum annual and 1-hour average NO<sub>2</sub> concentrations predicted using 5 years of meteorology will be compared against EPA's significant impact level (SIL).

A full impact analysis, including all emissions from the full facility for the applicable pollutant, is required if maximum predicted concentrations in SIL modeling exceed the applicable SIL thresholds. Predicted maximum impacts from full facility modeling will be compared to the applicable NAAQS levels.

Air quality dispersion modeling analyses for the proposed project are presented below. A compact disc of the model input and output was provided to the Idaho DEQ for their records.

## 4.1

**SUMMARY OF MODELING RESULTS**

Table 4-1 presents the SIL modeling results for the new engine generator. The maximum predicted annual average NO<sub>2</sub> concentration is 0.7 µg/m<sup>3</sup>. Because the predicted maximum impact for annual NO<sub>2</sub> is below the applicable SIL of 1.0 µg/m<sup>3</sup>, no further modeling analyses are required for annual NO<sub>2</sub>.

**Table 4-1  
SIL Modeling Analysis Results for 1-hr and Annual NO<sub>2</sub>**

Averaging Period	SIL (µg/m <sup>3</sup> )	Maximum Predicted Concentration (µg/m <sup>3</sup> )	Exceeds SIL?	Easting (m)	Northing (m)
Annual, 1 <sup>st</sup> Highest	1.0	0.7	No	470,007.55	4,745,450.65
1-Hour, 8 <sup>th</sup> Highest	7.5	11.6	Yes	470,020.29	4,745,442.82

The maximum predicted 1-hour NO<sub>2</sub> concentration is 11.6 µg/m<sup>3</sup> which exceeds the SIL of 7.5 µg/m<sup>3</sup>. Therefore, a full impact analysis, which includes all new and existing emissions from the facility, was performed for 1-hour NO<sub>2</sub> to demonstrate compliance with NAAQS. Table 4-2 presents the full facility modeling results. The maximum predicted 1-hour NO<sub>2</sub> impact is lower than the applicable NAAQS.

**Table 4-2  
Full Facility Modeling Results for 1-hr NO<sub>2</sub>**

Averaging Period	NAAQS (µg/m <sup>3</sup> )	Maximum Predicted Concentration (µg/m <sup>3</sup> )	Easting (m)	Northing (m)
1-Hour, 8 <sup>th</sup> Highest	188	180.7	470,922.29	4,745,411.76

**SUMMARY AND CONCLUSIONS**

Air quality modeling analyses were required to assess the ambient air quality impact of the proposed New Smith Pond engine generator at P4's South Rasmussen Mine. Dispersion modeling analyses using AERMOD were performed to demonstrate compliance with the applicable NO<sub>2</sub> NAAQS for 1-hour and annual averaging period.

SIL modeling predicted maximum annual NO<sub>2</sub> concentrations for the proposed engine generator below the applicable SIL threshold. SIL modeling predicted maximum NO<sub>2</sub> concentrations above the 1-hr NO<sub>2</sub> SIL, so a full impact analysis was required. The full impact analysis predicted maximum 1-hr NO<sub>2</sub> concentrations for full facility below the NAAQS. Therefore, the proposed engine generator project is in compliance with annual and 1-hr NO<sub>2</sub> NAAQS.

*Appendix A*

*Emission Calculations*

### New Smith Pond Generator Emission Rate Calculations

Pollutant	Engine Capacity (hp)	Emission Factor (g/kWh)	Emission Rates	
			(lb/hr)	(tpy)
NOx	156.9	3.520	0.908	3.98

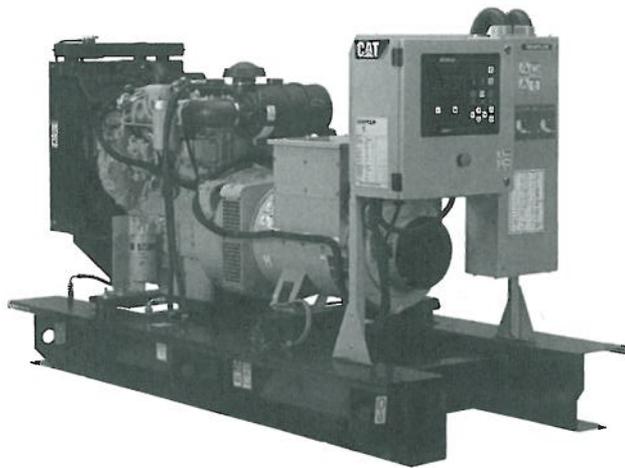
*Appendix B*

*Emission Source Parameters*

### Emission Source Parameters

Source ID	Easting (X) (m)	Northing (Y) (m)	Base Elevation (m)	Stack Height (m)	Temperature (K)	Flowrate (acfm)	Exit Velocity (m/s)	Stack Diameter (m)	NO <sub>2</sub> (lb/hr)
GEN1	470244.54	4745373.55	2,133.00	94.0	796.48	963	56.69	0.101	0.992
GEN2	470869.11	4745275.98	2,076.86	94.0	800.93	1,351	79.55	0.101	3.333
GEN3	470869.11	4745275.98	2,076.86	94.0	800.93	1,351	79.55	0.101	3.333
GEN4	470869.11	4745275.98	2,076.86	67.0	790.37	350	53.04	0.063	0.351
NEWGEN	469977.00	4745078.00	2,133.00	73.0	795.37	618	63.96	0.0762	0.908

**APPENDIX D**  
**Engine Specifications**



**STANDBY**                    **80-100 kW**  
**PRIME**                        **72-90 kW**  
**60 Hz**

Model	Standby kW (kVA)	Prime kW (kVA)
D80-6	80 (100)	72 (90)
D80-2S	80 (80)	72 (72)
D100-6	100 (125)	90 (112.5)
D100-6S	100 (100)	90 (90)

Tier 3 EPA Approved, Emissions Certified

## FEATURES

### GENERATOR SET

- Complete system designed and built at ISO 9001 certified facilities
- Factory tested to design specifications at full load conditions

### ENGINE

- Governor, electronic
- Electrical system, 12 VDC
- Cartridge type filters
- Battery rack and cables
- Coolant and lube drains piped to edge of base

### GENERATOR

- Insulation system, class H
- Drip proof generator air intake (NEMA 2, IP23)
- Electrical design in accordance with BS5000 Part 99, EN61000-6, IEC60034-1, NEMA MG-1.33

### CONTROL SYSTEM

- EMCP 3.1 digital control panel
- Vibration isolated NEMA 1 enclosure with lockable hinged door
- DC and AC wiring harnesses

### MOUNTING ARRANGEMENT

- Heavy-duty fabricated steel base with lifting points
- Anti-vibration pads to ensure vibration isolation
- Complete OSHA guarding
- Stub-up pipe ready for connection to silencer pipework
- Flexible fuel lines to base with NPT connections

### COOLING SYSTEM

- Radiator and cooling fan complete with protective guards
- Standard ambient temperatures up to 50° C (122° F)

### CIRCUIT BREAKER

- UL/CSA listed
- 3-pole with solid neutral
- NEMA 1 steel enclosure, vibration isolated
- Electrical stub-up area directly below circuit breaker

### AUTOMATIC VOLTAGE REGULATOR

- Voltage within  $\pm 0.5\%$  3-phase and  $\pm 1.0\%$  single phase at steady state from no load to full load
- Provides fast recovery from transient load changes

### EQUIPMENT FINISH

- All electroplated hardware
- Anticorrosive paint protection
- High gloss polyurethane paint for durability and scuff resistance

### QUALITY STANDARDS

- BS4999, BS5000, BS5514, EN61000-6, IEC60034, NEMA MG-1.33, NFPA 110 (with optional equipment)

### DOCUMENTATION

- Operation and maintenance manuals provided
- Wiring diagrams included

### WARRANTY

- All equipment carries full manufacturer's warranty.

**OPTIONAL EQUIPMENT\***

**ENCLOSURE**

- B Series weather protective enclosure (includes internal silencer system)
  - Single point lift
  - Panel viewing window
  - External emergency stop pushbutton
- Sound attenuated enclosure (includes internal silencer system)

**SILENCER SYSTEM – OPEN UNIT**

- Level 1 silencer
- Level 2 silencer
- Level 3 silencer
- Mounting kit
- Through-wall installation kits

**ENGINE**

- Battery heater
- Lube oil drain pump
- High lube oil temperature shutdown
- Lube oil sump heater

**CIRCUIT BREAKER**

- Auxiliary voltfree contacts
- Shunt trip (100+ amp breakers)

**GENERATOR**

- Anti-condensation heater
- Permanent magnet generator
- AREP excitation system (3-Phase only)
- Generator upgrade 1 size (3-Phase only)

**CONTROL SYSTEM**

- No control system
- EMCP 3.2 digital control panel

**MOUNTING ACCESSORIES**

- Seismic (Zone 4) vibration isolators

**FUEL SYSTEM**

- UL listed closed top-diked skid-mounted fuel tank base (12/24-hour capacity) with fuel alarm (low level/leak detected)
- Critical high fuel alarm
- Critical low fuel level shutdown

**COOLING SYSTEM**

- Coolant heater
- Low coolant temperature alarm
- Low coolant level shutdown
- Radiator transition flange

**REMOTE ANNUNCIATORS**

- 16-channel remote annunciator panel (supplied loose)

**MISCELLANEOUS ACCESSORIES**

- Toolkit
- Additional operator's manual pack
- Special enclosure color
- UL listing
- CSA certification
- French or Spanish language labels

**EXTENDED SERVICE CONTRACTS**

- Extended Service Coverage available

**TESTING**

- Factory test and report at both 1.0 pf and 0.8 pf

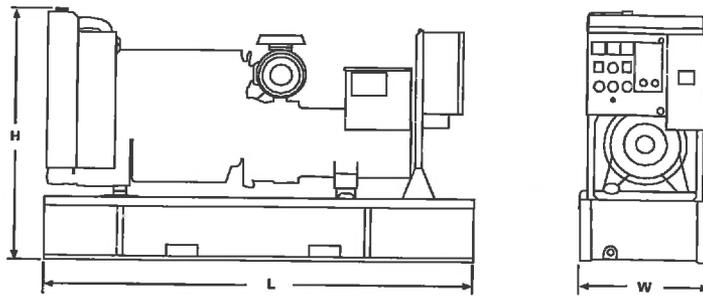
\* Some options may not be available on all models. Not all options are listed.

**STANDBY**  
**PRIME**  
**60 Hz**

**80-100 kW**  
**72-90 kW**



**GENERATOR SET DIMENSIONS AND WEIGHTS**



Model	Length mm (in)	Width mm (in)	Height mm (in)	Weight kg (lb)*
D80-6	2400 (94.5)	838 (32.9)	1400 (55.1)	960 (2,116)
D80-2S	2400 (94.5)	838 (32.9)	1400 (55.1)	934 (2,059)
D100-6	2400 (94.5)	838 (32.9)	1400 (55.1)	1389 (3,062)
D100-6S	2400 (94.5)	838 (32.9)	1400 (55.1)	1066 (2,350)

**NOTE:** General configuration not to be used for installation. See specific dimensional drawings for detail.

\*Includes oil and coolant



**STANDBY 80-100 kW**  
**PRIME 72-90 kW**  
**60 Hz**



**D80-6 (3-Phase)**

Materials and specifications are subject to change without notice.

Generator Set Technical Data – 1800 rpm/60 Hz				Standby		Prime	
Power Rating		kW	kVA	80	100	72	90
<b>Lubricating System</b> Type: full pressure Oil filter: spin-on, full flow Oil cooler: watercooled Oil type required: API CH4 Total oil capacity Oil pan		L L	U.S. gal U.S. gal	8 7	2.1 1.9	8 7	2.1 1.9
<b>Fuel System</b> Generator set fuel consumption 100% load 75% load 50% load		L/hr L/hr L/hr	gal/hr gal/hr gal/hr	24.7 19.7 14.6	6.5 5.2 3.9	22.7 18.2 13.5	6 4.8 3.6
<b>Engine Electrical System</b> Voltage/ground: 12/negative Battery charging generator ampere rating		amps		65		65	
<b>Cooling System</b> Water pump type: centrifugal Radiator system capacity incl. engine Maximum coolant static head Coolant flow rate Minimum temperature to engine Temperature rise across engine Heat rejected to coolant at rated power Total heat radiated to room at rated power Radiator fan load		L m H <sub>2</sub> O L/hr °C °C kW kW kW	U.S. gal ft H <sub>2</sub> O U.S. gal/hr °F °F Btu/min Btu/min hp	17.0 10.2 10 140 70 7 53.6 15.9 4.8	4.5 33.5 2,679 158 44.6 3,051 905 6.4	17.0 10.2 10 140 70 7 50.2 9.3 4.8	4.5 33.5 2,679 158 44.6 2,857 529 6.4
<b>Air Requirements</b> Combustion air flow Maximum air cleaner restriction Radiator cooling air (zero restriction) Generator cooling air Allowable air flow restriction (after radiator) Cooling airflow (@ rated speed) Rate with restriction		m <sup>3</sup> /min kPa m <sup>3</sup> /min m <sup>3</sup> /min kPa m <sup>3</sup> /min	cfm in H <sub>2</sub> O cfm cfm in H <sub>2</sub> O cfm	7.6 8 230 26.4 0.120 192	268 32 8,135 933 0.48 6,780	7.7 8 230 26.4 0.120 192	272 32 8,135 933 0.48 6,780
<b>Exhaust System</b> Maximum allowable backpressure Exhaust flow at rated kW Exhaust temperature at rated kW – Dry exhaust		kPa m <sup>3</sup> /min °C	in/mercury cfm °F	15 18.77 522	4.4 663 972	15 16 524	4.4 572 975
<b>Generator Set Noise Rating*</b> (without attenuation) at 1 m (3 ft)		dB(A)		97		97	

Generator Technical Data		277/480V	266/460V	127/220V	120/240V 120/208V	347/600V
<b>Motor Starting Capability:</b> (kVA) (30% voltage dip)	Self excited	239	223	207	188	239
	PM excited**	311	291	270	247	311
	AREP excited	311	291	270	247	311
<b>Full Load Efficiencies:</b>	Standby	91.7	91.6	91.4	90.9	91.7
	Prime	91.9	91.8	91.7	91.3	91.8
<b>Reactances (per unit):</b>  Reactances shown are applicable to the standby rating.	X <sub>d</sub>	2.69	2.93	3.21	3.58	2.69
	X' <sub>d</sub>	0.09	0.10	0.11	0.12	0.09
	X'' <sub>d</sub>	0.045	0.049	0.053	0.060	0.045
	X <sub>e</sub>	1.62	1.76	1.92	2.15	1.62
	X'' <sub>e</sub>	0.056	0.061	0.066	0.074	0.056
	X <sub>2</sub>	0.051	0.056	0.061	0.068	0.051
	X <sub>0</sub>	0.005	0.005	0.006	0.007	0.005
<b>Time Constants:</b>	t' <sub>d</sub> 50 ms	t' <sub>d</sub> 5 ms	t' <sub>do</sub> 1480 ms	t <sub>s</sub> 8 ms		

\* dB(A) levels are for guidance only

\*\* With PMG Excited Option AVR12

**STANDBY 80-100 kW**  
**PRIME 72-90 kW**  
**60 Hz**



**D80-2S (1-Phase)**

Materials and specifications are subject to change without notice.

Generator Set Technical Data - 1800 rpm/60 Hz			Standby		Prime	
<b>Power Rating (at 240V)</b>	kW	kVA	80	80	72	72
<b>Lubricating System</b>						
Type: full pressure						
Oil filter: spin-on, full flow						
Oil cooler: watercooled						
Oil type required: API CH4						
Total oil capacity	L	U.S. gal	8	2.1	8	2.1
Oil pan	L	U.S. gal	7	1.9	7	1.9
<b>Fuel System</b>						
Generator set fuel consumption						
100% load	L/hr	gal/hr	24.7	6.5	22.7	6.0
75% load	L/hr	gal/hr	19.7	5.2	18.2	4.8
50% load	L/hr	gal/hr	14.6	3.9	13.5	3.6
<b>Engine Electrical System</b>						
Voltage/ground: 12/negative						
Battery charging generator ampere rating						
			amps		65	
<b>Cooling System</b>						
Water pump type: centrifugal						
Radiator system capacity incl. engine	L	U.S. gal	17.0	4.5	17.0	4.5
Maximum coolant static head	m H <sub>2</sub> O	ft H <sub>2</sub> O	10.2	33.5	10.2	33.5
Coolant flow rate	L/hr	U.S. gal/hr	10 140	2,679	10 140	2,679
Minimum temperature to engine	°C	°F	70	158	70	158
Temperature rise across engine	°C	°F	7	44.6	7	44.6
Heat rejected to coolant at rated power	kW	Btu/min	53.6	3,051	50.2	2,857
Total heat radiated to room at rated power	kW	Btu/min	15.9	905	9.3	529
Radiator fan load	kW	hp	4.8	6.4	4.8	6.4
<b>Air Requirements</b>						
Combustion air flow	m <sup>3</sup> /min	cfm	7.6	268	7.7	271
Maximum air cleaner restriction	kPa	in H <sub>2</sub> O	8	32	8	32
Radiator cooling air (zero restriction)	m <sup>3</sup> /min	cfm	230	8,135	230	8,135
Generator cooling air	m <sup>3</sup> /min	cfm	26.4	933	26.4	933
Allowable air flow restriction (after radiator)	kPa	in H <sub>2</sub> O	0.120	0.48	0.120	0.48
Cooling airflow (@ rated speed)						
Rate with restriction	m <sup>3</sup> /min	cfm	192	6,780	192	6,780
<b>Exhaust System</b>						
Maximum allowable backpressure						
Exhaust flow at rated kW	kPa	in/mercury	15	4.4	15	4.4
Exhaust temperature at rated kW - Dry exhaust	m <sup>3</sup> /min	cfm	18.7	663	16	572
	°C	°F	522	972	524	975
<b>Generator Set Noise Rating*</b>						
(without attenuation) at 1 m (3 ft)						
			dB(A)		97	

Generator Technical Data		120/240V	115/230V	110/220V
<b>Motor Starting Capability: (kVA)</b>				
(30% voltage dip)				
Self excited		150	160	170
PM excited**		150	160	170
<b>Full Load Efficiencies:</b>				
Standby		87.9	88.5	89.1
Prime		88.4	89.0	89.5
<b>Reactances (per unit):</b>				
X <sub>d</sub>		2.14	2.33	2.54
Reactances shown	X' <sub>d</sub>	0.16	0.17	0.19
are applicable to	X'' <sub>d</sub>	0.082	0.089	0.096
the standby rating.	X <sub>d</sub>	1.28	1.40	1.53
	X'' <sub>d</sub>	0.101	0.109	0.120
<b>Time Constants:</b>				
t' <sub>d</sub>		80 ms	t'' <sub>d</sub>	7 ms
			t' <sub>do</sub>	1431 ms
			t <sub>a</sub>	12 ms

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 \*\* With PMG Excited Option AVR12

**STANDBY 80-100 kW**  
**PRIME 72-90 kW**  
**60 Hz**



**D100-6 (3-Phase)**

Materials and specifications are subject to change without notice.

Generator Set Technical Data – 1800 rpm/60 Hz			Standby		Prime	
Power Rating	kW	kVA	100	125.0	90	112.5
<b>Lubricating System</b>						
Type: full pressure						
Oil filter: spin-on, full flow						
Oil cooler: watercooled						
Oil type required: API CH4						
Total oil capacity						
L	L	U.S. gal	8.0	2.1	8.0	2.1
L	L	U.S. gal	7	1.9	7	1.9
<b>Fuel System</b>						
Generator set fuel consumption						
100% load	L/hr	gal/hr	29.8	7.9	26.8	7.1
75% load	L/hr	gal/hr	23.7	6.3	21.9	5.8
50% load	L/hr	gal/hr	17.5	4.6	16.3	4.3
<b>Engine Electrical System</b>						
Voltage/ground: 12/negative						
Battery charging generator ampere rating						
			amps		65	
<b>Cooling System</b>						
Water pump type: centrifugal						
Radiator system capacity incl. engine						
L	m H <sub>2</sub> O	U.S. gal	17.0	4.5	17.0	4.5
Maximum coolant static head						
		U.S. gal/hr	10.2	33.5	10.2	33.5
Coolant flow rate						
	L/hr	U.S. gal/hr	10 140	2,679	10 140	2,679
Minimum temperature to engine						
	°C	°F	70	158	70	158
Temperature rise across engine						
	°C	°F	7	44.6	7	44.6
Heat rejected to coolant at rated power						
	kW	Btu/min	65.6	3,731	59.7	3,396
Total heat radiated to room at rated power						
	kW	Btu/min	20.7	1,177	18.3	1,041
Radiator fan load						
	kW	hp	5.0	6.7	5.0	6.7
<b>Air Requirements</b>						
Combustion air flow						
	m <sup>3</sup> /min	cfm	8.4	297	8.5	300
Maximum air cleaner restriction						
	kPa	in H <sub>2</sub> O	8	32	8	32
Radiator cooling air (zero restriction)						
	m <sup>3</sup> /min	cfm	230	8,135	230	8,135
Generator cooling air						
	m <sup>3</sup> /min	cfm	26.4	933	26.4	933
Allowable air flow restriction (after radiator)						
	kPa	in H <sub>2</sub> O	0.120	0.48	0.120	0.48
Cooling airflow (@ rated speed)						
	m <sup>3</sup> /min	cfm	192	6,780	192	6,780
Rate with restriction						
<b>Exhaust System</b>						
Maximum allowable backpressure						
	kPa	in/mercury	15	4.4	15	4.4
Exhaust flow at rated kW						
	m <sup>3</sup> /min	cfm	17.5	618	16	572
Exhaust temperature at rated kW –						
	°C	°F	522	972	524	975
Dry exhaust						
<b>Generator Set Noise Rating*</b>						
(without attenuation) at 1 m (3 ft)						
			dB(A)		98	
					97	

Generator Technical Data		277/480V	266/460V	127/220V	120/240V 120/208V	347/600V
<b>Motor Starting Capability:</b> (kVA)						
(30% voltage dip)						
	Self excited	206	191	177	160	191
	PM excited**	271	252	233	211	252
	AREP excited	271	252	233	211	252
<b>Full Load Efficiencies:</b>						
	Standby	91.1	90.9	90.6	90.1	91.0
	Prime	91.5	91.3	91.0	90.6	91.4
<b>Reactances (per unit):</b>						
	X <sub>s</sub>	3.68	3.90	4.26	4.77	3.90
	X' <sub>s</sub>	0.14	0.15	0.17	0.19	0.15
	X'' <sub>s</sub>	0.083	0.091	0.099	0.111	0.091
	X <sub>a</sub>	2.15	2.34	2.56	2.86	2.34
	X'' <sub>a</sub>	0.104	0.113	0.123	0.138	0.113
	X <sub>2</sub>	0.094	0.102	0.112	0.125	0.102
	X <sub>0</sub>	0.005	0.005	0.006	0.006	0.005
<b>Time Constants:</b>						
	t' <sub>d</sub>	100 ms	10 ms	2555 ms	t <sub>d</sub>	15 ms

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**STANDBY 80-100 kW**  
**PRIME 72-90 kW**  
**60 Hz**



**D100-6S (1-Phase)**

Materials and specifications are subject to change without notice.

Generator Set Technical Data – 1800 rpm/60 Hz		Standby		Prime	
<b>Power Rating (at 240V)</b>	kW      kVA	100	100	90	90
<b>Lubricating System</b> Type: full pressure Oil filter: spin-on, full flow Oil cooler: watercooled Oil type required: API CH4 Total oil capacity Oil pan	L      U.S. gal L      U.S. gal	8      2.1 7      1.9		8      2.1 7      1.9	
<b>Fuel System</b> Generator set fuel consumption 100% load 75% load 50% load	L/hr      gal/hr L/hr      gal/hr L/hr      gal/hr	29.7      7.8 23.7      6.3 17.6      4.6		27.3      7.2 21.9      5.8 16.3      3	
<b>Engine Electrical System</b> Voltage/ground: 12/negative Battery charging generator ampere rating	amps		65		65
<b>Cooling System</b> Water pump type: centrifugal Radiator system capacity incl. engine Maximum coolant static head Coolant flow rate Minimum temperature to engine Temperature rise across engine Heat rejected to coolant at rated power Total heat radiated to room at rated power Radiator fan load	L      U.S. gal m H <sub>2</sub> O      ft H <sub>2</sub> O L/hr      U.S. gal/hr °C      °F °C      °F kW      Btu/min kW      Btu/min kW      hp	17.0      4.5 10.2      33.5 10 140      2,679 70      158 7      44.6 61.0      3,472 18.0      1,025 4.8      6.4		17.0      4.5 10.2      33.5 10 140      2,679 70      158 7      44.6 57.0      3,244 15.0      854 4.8      6.4	
<b>Air Requirements</b> Combustion air flow Maximum air cleaner restriction Radiator cooling air (zero restriction) Generator cooling air Allowable air flow restriction (after radiator) Cooling airflow (@ rated speed) Rate with restriction	m <sup>3</sup> /min      cfm kPa      in H <sub>2</sub> O m <sup>3</sup> /min      cfm m <sup>3</sup> /min      cfm kPa      in H <sub>2</sub> O m <sup>3</sup> /min      cfm	8.4      297 8      32 230      8,135 26.4      933 0.120      0.48 192      6,780		8.5      300 8      32 230      8,135 26.4      933 0.120      0.48 192      6,780	
<b>Exhaust System</b> Maximum allowable backpressure Exhaust flow at rated kW Exhaust temperature at rated kW – Dry exhaust	kPa      in/mercury m <sup>3</sup> /min      cfm °C      °F	15      4.4 22.5      794 580      1,076		15      4.4 20.0      705 540      1,004	
<b>Generator Set Noise Rating*</b> (without attenuation) at 1 m (3 ft)	dB(A)		98		97

Generator Technical Data	120/240V	115/230V	110/220V	
<b>Motor Starting Capability:</b> (kVA) (30% voltage dip) Self excited PM excited**	187 187	175 175	162 162	
<b>Full Load Efficiencies:</b> Standby Prime	90.5 90.9	90.0 90.4	89.4 89.4	
<b>Reactances (per unit):</b> Reactances shown are applicable to the standby rating.	X <sub>s</sub> X' <sub>s</sub> X'' <sub>s</sub> X <sub>a</sub> X'' <sub>a</sub>	2.67 0.21 0.127 1.60 0.151	2.91 0.23 0.138 1.74 0.164	3.18 0.25 0.151 1.90 0.180
<b>Time Constants:</b>	t' <sub>d</sub> 165 ms	t'' <sub>d</sub> 13 ms	t' <sub>do</sub> 2734 ms	t <sub>a</sub> 20 ms

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