

# **Statement of Basis**

**Permit to Construct P-2010.0146  
Project No. 60616**

**Busch Agricultural Resources, LLC  
Idaho Falls Malt Facility  
Idaho Falls, Idaho**

**Facility ID No. 019-00025**

**Final**

**February 11, 2011  
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**The purpose of this Statement of Basis is to satisfy the requirements of IDAPA 58.01.01. et seq, Rules for the Control of Air Pollution in Idaho, for issuing air permits.**

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## ACRONYMS, UNITS, AND CHEMICAL NOMENCLATURE

AAC	acceptable ambient concentrations
AACC	acceptable ambient concentrations for carcinogens
acfm	actual cubic feet per minute
AFS	AIRS Facility Subsystem
AIRS	Aerometric Information Retrieval System
AQCR	Air Quality Control Region
ASTM	American Society for Testing and Materials
BACT	Best Available Control Technology
BMP	best management practices
Btu	British thermal units
CAA	Clean Air Act
CAM	Compliance Assurance Monitoring
CAS No.	Chemical Abstracts Service registry number
CBP	concrete batch plant
CEMS	continuous emission monitoring systems
cfm	cubic feet per minute
CFR	Code of Federal Regulations
CI	compression ignition
CMS	continuous monitoring systems
CO	carbon monoxide
COMS	continuous opacity monitoring systems
DEQ	Department of Environmental Quality
dscf	dry standard cubic feet
EL	screening emission levels
EPA	U.S. Environmental Protection Agency
FEC	Facility Emissions Cap
FIRE	EPA's Factor Information Retrieval
gpm	gallons per minute
gph	gallons per hour
gr	grain (1 lb = 7,000 grains)
HAP	hazardous air pollutants
HMA	hot mix asphalt
hp	horsepower
hr/yr	hours per year
ICE	internal combustion engines
IDAPA	a numbering designation for all administrative rules in Idaho promulgated in accordance with the Idaho Administrative Procedures Act
km	kilometers
lb/hr	pounds per hour
lb/qtr	pound per quarter
m	meters
MACT	Maximum Achievable Control Technology
mg/dscm	milligrams per dry standard cubic meter
MMBtu	million British thermal units
MMscf	million standard cubic feet
NAAQS	National Ambient Air Quality Standard
NAICS	North American Industry Classification System
NESHAP	National Emission Standards for Hazardous Air Pollutants
NO <sub>2</sub>	nitrogen dioxide
NO <sub>x</sub>	nitrogen oxides
NSPS	New Source Performance Standards

O&M	operation and maintenance
PAH	polyaromatic hydrocarbons
PC	permit condition
PCB	polychlorinated biphenyl
PERF	Portable Equipment Relocation Form
PM	particulate matter
PM <sub>10</sub>	particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers
POM	polycyclic organic matter
ppm	parts per million
PSD	Prevention of Significant Deterioration
PTC	permit to construct
PTC/T2	permit to construct and Tier II operating permit
PTE	potential to emit
RAP	recycled asphalt pavement
RFO	reprocessed fuel oil
Rules	Rules for the Control of Air Pollution in Idaho
scf	standard cubic feet
SCL	significant contribution limits
SIC	Standard Industrial Classification
SIP	State Implementation Plan
SM	synthetic minor
SM80	synthetic minor facility with emissions greater than or equal to 80% of a major source threshold
SO <sub>2</sub>	sulfur dioxide
SO <sub>x</sub>	sulfur oxides
T/yr	tons per consecutive 12-calendar month period
T2	Tier II operating permit
TAP	toxic air pollutants
TEQ	toxicity equivalent
T-RACT	Toxic Air Pollutant Reasonably Available Control Technology
U.S.C.	United States Code
UTM	Universal Transverse Mercator
VOC	volatile organic compounds
yd <sup>3</sup>	cubic yards
µg/m <sup>3</sup>	micrograms per cubic meter

## FACILITY INFORMATION

### Description

The Busch Agricultural Resources LLC, Idaho Falls Malt facility produces barley malt from barley grains. The facility has three process unit areas: grains handling, malt production, and utilities operations.

The grains handling area includes equipment for loading and unloading grain, malt, and byproduct materials; equipment for cleaning grain and malt; and equipment for conveying and storing grains and malt. All grains handling at the facility uses baghouses to control PM emissions. The baghouse control systems are identified as System 100 through System 800.

Malt production uses ethyl alcohol to dissolve an additive for malt houses and four indirect-fired natural-gas kilns to dry the green malt.

Utility operations include three natural-gas-fired boilers. The boilers provide steam for the malting process equipment.

Detailed process description and the process flow diagram provided by the applicant can be found in Appendix A

### Permitting History

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

Permit Type	Permit Number	Issue Date	Project	Status	History Explanation
PTC	0260-00025	04/10/89	For malt plant construction/installation	S	
PTC	0260-00025	09/25/90	Modifications to 4/10/89 PTC for barley malt plant	S	9/25/90 PTC was combined with 10/02/90 PTC and became one document.
PTC	0260-00025	10/02/90	Installation of two vacuum cleaning systems	S	
PTC	0260-00025	03/12/91	PTC modifications & exemption for a fire pump	S	
PTC	0260-00025	08/05/93	PTC modification - to make corrections to reflect "as built" conditions & to clarify emission limits for various operations	S	
PTC	0260-00025	12/29/93	PTC modification - correcting errors in previous PTC & adding grain cleaner	S	
PTC	019-00025 (P-010513)	04/30/02	Malt plant expansion project	S	
PTC	P-030506	09/05/03	Modification - to add two burners (pre-heaters) to kilns #3 & #4	S	
PTC	P-030539	10/26/04	Expand loadout capacity for the barley, malt, & byproducts loadout facility (S01 and S02).	S	
PTC	P-040520	03/11/05	To add dust system 800 and kiln #3 vacuum system	A (will be S after this permitting action)	
T1	T1-030512	06/23/2006	Initial T1 permit	A	

## **Application Scope**

This permitting action is for a minor modification at an existing PSD minor facility. The applicant has proposed the following changes:

- Revise Permit Conditions 4.1.1 and 4.1.2 to reflect the changes of the configuration and operation for System 100 - Barley Unloading, Byproduct Loadout, and Rail Malt Loadout (Emission Point- S01) and System 200 - Truck Loadout for Malt and Byproduct (Emission Point S02)
- Revise Permit Condition 4.4 to clarify which emission points are subject to the opacity limit in 40 CFR 60 Subpart DD and which emissions points are subject to 20% opacity limit in IDAPA 58.01.0.625.
- Revise Permit Condition 4.6 to change measuring unit for barley unloading throughput from bushels to tons and to increase the throughput limit from previously permitted 436,400 T/yr to 520,000 T/yr.
- Allow to use a new additive and ethyl alcohol in the germination process of malt production.
  - The new additive speeds the germination process and will result in processing rates increase. The applicant has requested a throughput increase from previously permitted 436,400 T/yr (16 million bushels) to 520,000 T/yr for annual barley unloaded rate at the facility (refer to Permit Condition 4.6).
  - The additive must be dissolved in ethyl alcohol prior to use, and this results in an ethyl alcohol emissions at the Malt Houses. Ethyl alcohol is a volatile organic compound and a toxic air pollutant (TAP) as listed in IDAPA 58.01.01.585. The proposed operation results ethyl alcohol emissions less than its screening emission levels (EL) and less than 10% of VOC significant level.
- Revise Table 4.2 of the existing PTC. DEQ staff does not make the requested change. Refer to discussions under Permit Conditions Review section for Permit Conditions 4.3 and 4.4 for details.
- Include the existing diesel fired engine that powers the emergency fire pump and the requirements of 40 CFR Part 63, Subpart ZZZZ in the permit.

## **Application Chronology**

November 1, 2010	DEQ received an application and an application fee.
November 10 – November 25, 2010	DEQ provided an opportunity to request a public comment period on the application and proposed permitting action.
November 15, December 1, December 17, December 27, 2010, and January 14, February 7, 2011	DEQ received supplemental information from the applicant through emails with signed cover letters.
November 29, 2010	DEQ determined that the application was complete.
December 30, 2010	DEQ made available the draft permit and statement of basis for peer and regional office review.
January 5, 2011	DEQ made available the draft permit and statement of basis for applicant review.
January 21, 2011	DEQ received the permit processing fee.
January 26, 2011	DEQ made available the draft permit and statement of basis for applicant review regarding the fire pump engine and the requirements of 40 CFR 63 Subpart ZZZZ in the permit.

**TECHNICAL ANALYSIS**

***Emissions Units and Control Devices***

The applicant emailed DEQ the following information on December 27, 2010 and February 7, 2011 with signed cover letters.

**Table 1 EMISSIONS UNIT AND CONTROL DEVICE INFORMATION**

ID No.	Source Description	Control Equipment Description	Emissions Point ID No. and Description
S01	<p><u>Emissions Unit Name:</u>  <u>Dust System #1 - Loading and Unloading</u>                      Manufacturer: Various                      Model: N/A                      Manufacture Date: Unknown                      Max. production:                      Barley Unloading: 180 T/hr                      By-Product Loadout: 180 T/hr</p>	<p><u>Control Device Name:</u>  <u>Dust System #1 Baghouse</u>                      Manufacturer: Torit Day                      Model: RF-376                      Type: Fabric Filter                      Number of bags: 376                      Air to Cloth ratio: 10 to 1                      PM<sub>10</sub> control efficiency: 99%</p>	<p>Exit height: 35 ft (10.7 m)                      Exit diameter: 4.33 ft (1.32 m)                      Exit flow rate: 48,000 acfm                      Exit temperature: 70 °F (21.1 °C)</p>
S02	<p><u>Emissions Unit Name:</u>  <u>Dust System # 2 - Loading and Unloading</u>                      Manufacturer: Various                      Model: N/A                      Manufacture Date: Unknown                      Max. production:                      By-product Loadout: 180 T/hr                      Malt Loadout: 260 T/hr                      Barley Transfer: 240 T/hr                      Malt Transfer: 170 T/hr</p>	<p><u>Control Device Name:</u>  <u>Dust System #2 Baghouse</u>                      Manufacturer: Torit Day                      Model: RF-276                      Type: Fabric Filter                      Number of bags: 276                      Air to Cloth ratio: 10 to 1                      PM<sub>10</sub> control efficiency: 99%</p>	<p>Exit height: 40 ft (12.2 m)                      Exit diameter: 4.33 ft (1.32 m)                      Exit flow rate: 39,500 acfm                      Exit temperature: 70 °F (21.1 °C)</p>
S03	<p><u>Emissions Unit Name:</u>  <u>Dust System #3– In House Handling of Barley and Malt</u>                      Manufacturer: Various                      Model: N/A                      Manufacture Date: Unknown                      Max. production:                      Barley Handling: 240T/hr                      Malt Handling: 170 T/hr</p>	<p><u>Control Device Name:</u>  <u>Dust System #3 Baghouse</u>                      Manufacturer: Torit Day                      Model: RF-276                      Type: Fabric Filter                      Number of bags: 276                      Air to Cloth ratio: 10 to 1                      PM<sub>10</sub> control efficiency: 97%</p>	<p>Exit height: 231 ft (70.4 m)                      Exit diameter: 3.67 ft (1.1 m)                      Exit flow rate: 28,100 acfm                      Exit temperature: 70 °F (21.1 °C)</p>
S04	<p><u>Emissions Unit Name:</u>  <u>Dust System #4 – Barley Cleaning, Grading, and Associated Handling</u>                      Manufacturer: Various                      Model: N/A                      Manufacture Date: Unknown                      Max. production: 164 T/hr</p>	<p><u>Control Device Name:</u>  <u>Dust System #4 Baghouse</u>                      Manufacturer: Torit Day                      Model: RF-276                      Type: Fabric Filter                      Number of bags: 232                      Air to Cloth ratio: 10 to 1                      PM<sub>10</sub> control efficiency: 97%</p>	<p>Exit height: 30 ft (9.1 m)                      Exit diameter: 4.21 ft (1.28 m)                      Exit flow rate: 29,000 acfm                      Exit temperature: 70 °F (21.1 °C)</p>

S05	<u>Emissions Unit Name:</u> <u>Dust System #5 – Graded Barley Transfer to Malt House</u> Manufacturer: Various Model: N/A Manufacture Date: Unknown Max. production: 140 T/hr	<u>Control Device Name:</u> <u>Dust System #5 Baghouse</u> Manufacturer: Torit Day Model: RF-232 Type: Fabric Filter Number of bags: 232 Air to Cloth ratio: 10 to 1 PM <sub>10</sub> control efficiency: 97%	Exit height: 30 ft (9.1 m) Exit diameter: 3.67 ft (1.1 m) Exit flow rate: 29,000 acfm Exit temperature: 70 °F (21.1 °C)
S06	<u>Emissions Unit Name:</u> <u>Dust System #6 – Malt Cleaning, Grading, and Associated Handling</u> Manufacturer: Various Model: N/A Manufacture Date: Unknown Max. production: 213 T/hr	<u>Control Device Name:</u> <u>Dust System #6 Baghouse</u> Manufacturer: Torit Day Model: RF-276 Type: Fabric Filter Number of bags: 276 Air to Cloth ratio: 10 to 1 PM <sub>10</sub> control efficiency: 97%	Exit height: 40 ft (12.2 m) Exit diameter: 4.37 ft (1.33 m) Exit flow rate: 40,650 acfm Exit temperature: 70 °F (21.1 °C)
S07	<u>Emissions Unit Name:</u> <u>Dust System #7 – Transfer of Dust</u> Manufacturer: Various Model: N/A Manufacture Date: Unknown Max. production: 2.5 T/hr	<u>Control Device Name:</u> <u>Dust System #7 Baghouse (inherent to the process)</u> Manufacturer: Torit Day Model: RF-48 Type: Fabric Filter Number of bags: 48 Air to Cloth ratio: 10 to 1 PM <sub>10</sub> control efficiency: 97%	Exit height: 163 ft (49.7 m) Exit diameter: 1.21 ft (0.37 m) Exit flow rate: 1,980 acfm Exit temperature: 70 °F (21.1 °C)
DS8	<u>Emissions Unit Name:</u> <u>Dust System #8 – Barley and Malt Handling</u> Manufacturer: Various Model: N/A Manufacture Date: Unknown Max. production: Barley: 121 T/hr Malt: 189 T/hr	<u>Control Device Name: NA</u> Manufacturer: Donaldson Model: 72 RFW 10 AW Type: Fabric Filter Number of bags: 72 Air to Cloth ratio: 7.5 to 1 PM <sub>10</sub> control efficiency: 99.5%	Exit height: 18 ft (5.5 m) Exit diameter: 2 ft (0.61 m) Exit flow rate: 7,000 acfm Exit temperature: 70 °F (21.1 °C)
S08	<u>Emissions Unit Name:</u> <u>Kiln #1</u> Manufacturer: Custom Built Model: N/A Burner Model: Unknown Manufacture Date: Unknown Heat input rating: 68 MMBtu/hr Max. production: Drying Malt: N/A T/hr (Batch) Sulfuring Malt: 0.018 T/hr Fuel: Natural Gas Fuel consumption: 0.068 MMscf/hr	None	<u>Process Exhaust:</u> Exit height: 95 ft (29 m) Exit diameter: 15.9 ft (4.8 m) Exit flow rate: 565,000 acfm Exit temperature: 70 °F (21.1 °C)  <u>Heater Exhaust:</u> Exit height: 95 ft (29 m) Exit diameter: 3 ft (0.9 m) Exit flow rate: 20,000 acfm Exit temperature: 300 °F (149 °C)
S09	<u>Emissions Unit Name:</u> <u>Kiln #2</u> Manufacturer: Custom Built Model: N/A Burner Model: Unknown Manufacture Date: Unknown Heat input rating: 68 MMBtu/hr Max. production: Drying Malt: N/A T/hr (Batch Process) Sulfuring Malt: 0.018 T/hr Fuel: Natural Gas Fuel consumption: 0.068 MMscf/hr	None	<u>Process Exhaust:</u> Exit height: 95 ft (29 m) Exit diameter: 15.9 ft (4.8 m) Exit flow rate: 565,000 acfm Exit temperature: 70 °F (21.1 °C)  <u>Heater Exhaust:</u> Exit height: 95 ft (29 m) Exit diameter: 3 ft (0.9 m) Exit flow rate: 20,000 acfm Exit temperature: 300 °F (149 °C)

S10	<u>Emissions Unit Name: Boilers #1 - #3</u> Manufacturer: Cleaver Brooks Model: CB#700-700 Burner Model: CB#700-700 Manufacture Date: Unknown Heat input rating: 90 MMBtu/hr (Total) Max. production: N/A T/hr Fuel: Natural Gas Fuel consumption: 0.090 MMscf/hr	None	Exit height: 102 ft (31.1 m) Exit diameter: 3.5 ft (1.1 m) Exit flow rate: 24,000 acfm Exit temperature: 120 °F (48.9 °C)
S11	<u>Emissions Unit Name: Head House Vacuum System</u> Manufacturer: MAC Model: 96AVR14-3 Manufacture Date: Unknown Max. production: 2 T/hr	<u>Control Device Name: Head House Vacuum Baghouse (inherent to the process)</u> Manufacturer: Lampton Model: 96AVR14-3 Type: Fabric Filter Number of bags: 14 Air to Cloth ratio: 10 to 1 PM <sub>10</sub> control efficiency: 99%	Exit height: 162 ft (49.4 m) Exit diameter: 0.5 ft (0.15 m) Exit flow rate: 1,000 acfm Exit temperature: 70 °F (21.1 °C)
S12	<u>Emissions Unit Name: Kiln House Vacuum System</u> Manufacturer: Hoffman Model: HPC14-84 Manufacture Date: Unknown Max. production: 2 T/hr	<u>Control Device Name: NA (Inherent to the process)</u> Manufacturer: Hoffman Model: HPC14-84 Type: Fabric Filter Number of bags: 14 Air to Cloth ratio: 3 to 1 PM <sub>10</sub> control efficiency: 99%	Exit height: 65 ft (19.8 m) Exit diameter: 0.5 ft (0.15 m) Exit flow rate: 1,000 acfm Exit temperature: 70 °F (21.1 °C)
S13	<u>Emissions Unit Name: Kiln 3 Vacuum System</u> Manufacturer: MAC Model: 96 AVR 14-STY3 Manufacture Date: Unknown Max. production: 2 T/hr	<u>Control Device Name: NA (Inherent to the process)</u> Manufacturer: MAC Model: 96 AVR 14-STY3 Type: Fabric Filter Number of bags: 14 Air to Cloth ratio: 3 to 1 PM <sub>10</sub> control efficiency: 99%	Exit height: 10 ft (3.05 m) Exit diameter: 0.5 ft (0.15 m) Exit flow rate: 1,000 acfm Exit temperature: 110 °F (43.3 °C)
S21	<u>Emissions Unit Name: Kiln #3</u> Manufacturer: Custom Model: N/A Burner Model: Unknown Manufacture Date: Unknown Heat input rating: 81.6 MMBtu/hr Max. production: Drying Malt: N/A T/hr (Batch Process) Sulfuring Malt: 0.032 T/hr Fuel: Natural Gas Fuel consumption: 0.082 MMscf/hr	None	<u>Process Exhaust:</u> Exit height: 72 ft (22 m) Exit diameter: 32 ft (9.7 m) Exit flow rate: 900,000 acfm Exit temperature: 70 °F (21.1 °C)  <u>Heater Exhaust (3 identical stacks):</u> Exit height: 78 ft (23.8 m) Exit diameter: 1.8 ft (0.55 m) Exit flow rate: 4,160 acfm Exit temperature: 131 °F (55 °C)
S22	<u>Emissions Unit Name: Kiln #4</u> Manufacturer: Custom Model: N/A Burner Model: Unknown Manufacture Date: Unknown Heat input rating: 81.6 MMBtu/hr Max. production: Drying Malt: N/A T/hr (Batch Process) Sulfuring Malt: 0.032 T/hr Fuel: Natural Gas Fuel consumption: 0.082 MMscf/hr	None	<u>Process Exhaust:</u> Exit height: 72 ft (22 m) Exit diameter: 32 ft (9.7 m) Exit flow rate: 900,000 acfm Exit temperature: 70 °F (21.1 °C)  <u>Heater Exhaust (3 identical stacks):</u> Exit height: 78 ft (23.8 m) Exit diameter: 1.8 ft (0.55 m) Exit flow rate: 4,160 acfm Exit temperature: 131 °F (55 °C)
MH1&2	<u>Emissions Unit Name: Malt Germination – Malt House 1 &amp; 2</u> Manufacturer: Custom Model: N/A Manufacture Date: Unknown Max. production: N/A T/hr (Batch Process)	None	Four identical stacks: Exit height: 80 ft (24.3 m) Exit diameter: 6 x 6 ft (1.8 x 1.8 m) Exit flow rate: 129,000 acfm each Exit temperature: 70 °F (21.1 °C)

MH3	<u>Emissions Unit Name: Malt Germination – Malt House 3</u> Manufacturer: Custom Model: N/A Manufacture Date: Unknown Max. production: N/A T/hr (Batch Process)	None	Two identical stacks: Exit height: 120 ft (36.6 m) Exit diameter: 15 x 28 ft (4.6 x 8.5 m) Exit flow rate: 258,000 acfm each Exit temperature: 70 °F (21.1 °C)
	<u>Emissions Unit Name: Emergency Fire Pump Engine (diesel fired)</u> Manufacturer: Detroit Diesel Model: DDFP T6At 7015 Manufacture Date: 1990 Max. production: 315 HP	None	Exit height: 15 ft (4.57 m) Exit diameter: 6 in. (0.15 m) Exit flow rate: 1,900 acfm Exit temperature: 1,050 °F (566 °C)

### **Emissions Inventories**

The applicant submitted the emissions inventory (EI). DEQ staff reviewed and verified the parts affected by this permitting action (i.e., S01 through S07, DS8, the fire pump engine, and germination of malt/addition of alcohol at malt houses). The emissions estimation method used in the applicant’s EI spreadsheet for the affected parts is consistent with DEQ’s emissions estimation approach. Summaries of the estimated controlled emissions of criteria pollutants from the facility are provided in Table 2. Facility-wide PTE can be found in Appendix B. Refer to applicant’s EI spreadsheet for more details.

### **Change in Potential to Emit**

The following table presents the pre- and post-project potential to emit for criteria pollutants from all emissions units (non-fugitive sources) at the facility as submitted by the applicant.

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

**Table 2 CHANGES IN POTENTIAL TO EMIT FOR CRITERIA POLLUTANTS**

PTE	PM	PM <sub>10</sub>	NO <sub>x</sub>	CO	SO <sub>x</sub>	VOC
<b>Pre-project</b>	146.9	113.2	116.6	97.7	95.7	6.4
<b>Post-project</b>	147.0	113.4	116.6	97.7	95.7	8.1
<b>Changes in PTE</b>	0.17	0.21	0.00	0.00	0.00	1.65

### **Non-Carcinogenic TAP Emissions**

The estimated uncontrolled non-carcinogenic TAP emissions increase, as a result of this permitting action, is provided in the following table.

The emissions estimation is based on the information provided in the application: an alcohol usage of 800 ml per malt house with total three malt houses at the facility and a maximum usage of 500 gallons of alcohol per year. The estimated ethyl alcohol emissions are 4.2 lb/hr and 1.65 T/yr.

Pre- and post-project, as well as the change in, non-carcinogenic TAP emissions are presented in the following table:



Therefore in accordance with 40 CFR 52.21(a)(2), PSD requirements are not applicable to this permitting action.

### **NSPS Applicability (40 CFR 60)**

This permitting action does not trigger any new NSPS requirements.

The facility is currently subject to 40 CFR 60 Subpart Dc and Subpart DD. The applicability determinations of these regulations were made in the previous permitting actions (i.e., PTC issued on March 11, 2005 and Tier I issued on June 23, 2006.) They are summarized in the following:

#### Subpart Dc -Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units

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

Boilers No. 1, 2, and 3 were constructed, modified, or reconstructed after June 9, 1989, and each was rated at 30 MMBtu/hr. Therefore, Subpart Dc is applicable to the boilers.

#### 40 CFR 60 Subpart DD - Standards of Performance for Grain Elevators

*§60.300 (a) The provisions of this subpart apply to each affected facility at any grain terminal elevator or any grain storage elevator, except as provided under §60.304(b). The affected facilities are each truck unloading station, truck loading station, barge and ship unloading station, barge and ship loading station, railcar loading station, railcar unloading station, grain dryer, and all grain handling operations.*

*§60.300 (b) Any facility under paragraph (a) of this section which commences construction, modification, or reconstruction after August 3, 1978, is subject to the requirements of this part.*

*§60.301 (a) Grain means corn, wheat, sorghum, rice, oats, barley, and soybeans.*

*§60.301 (b) Grain elevator means any plant or installation at which grain is unloaded, handled, cleaned, dried, stored, or loaded.*

As discussed in the SOB for the previous permitting action, this facility handles barley, which is a grain, and is a grain elevator constructed after August 3, 1978; therefore, 40 CFR 60 Subpart DD applies. EPA has determined that malt is not considered to be grain, and equipment which process malt exclusively are not subject to 40 CFR 60 Subpart DD. All equipment that processes both malt and barley, not malt exclusively, is subject to 40 CFR 60 Subpart DD because barley is a grain and there is no way to separate the malt part of the emissions from the barley part.

The following sources do not handle barley and are not subject to 40 CFR 60 Subpart DD:

- S06 – Malt cleaning, storage, and handling
- S12 – Kiln vacuum
- S13 – Kiln vacuum

### **NESHAP Applicability (40 CFR 61)**

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

### **MACT Applicability (40 CFR 63)**

The facility is subject to 40 CFR 63 Subpart ZZZZ—National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines.

The Busch Agricultural Resources, LLC Idaho Falls Malt Facility is an area source of hazardous air pollutants that operates a 315 hp compression ignition reciprocating internal combustion engine to power an emergency fire pump. The engine is subject to this subpart.

Detailed regulatory analysis can be found in Appendix E.

### ***CAM Applicability (40 CFR 64)***

The facility addressed DEQ's comments on the calculation for CAM and emailed the revised one in its application supplement on December 17, 2010 followed with hardcopy. DEQ reviewed and concurred with the revised CAM calculation. The facility is not subject to CAM because the uncontrolled PM<sub>10</sub> emissions from each emission unit are less than 100 T/yr. Refer to CAM worksheet in applicant's EI spreadsheet for more details.

### ***Permit Conditions Review***

This section describes those permit conditions that have been added, revised, modified or deleted as a result of this permitting action. The new text is in **bold** and the deleted text is ~~struck-out~~.

#### Permit Conditions 1.1 to 1.4

Permit Condition 1.1 states the purpose of this permitting action. Permit Condition 1.2 states that the revised permit conditions are identified by a date citation located directly under the permit condition and on the right hand margin. Permit Condition 1.3 states which PTC is replaced by this new PTC. Permit Condition 1.4 lists the emissions sources regulated by this permit – Section 5 regarding the existing diesel fired engine for the emergency fire pump is added to Table 1.

#### Permit Conditions 4.1.1 and 4.1.2

Permit Conditions 4.1.1 and 4.1.2 are revised to reflect the changes of the configuration and operation for System 100 - Barley Unloading, Byproduct Loadout, and Rail Malt Loadout (Emission Point- S01) and System 200 - Truck Loadout for Malt and Byproduct (Emission Point S02.)

They are revised as the following:

#### “4.1.1 Stack S01 - System 100 - Barley Unloading, ~~and Byproduct Loadout,~~ and Rail Malt Loadout

Barley is delivered to the plant by truck or railcar. For truck deliveries, the truck is driven into the shipping and receiving building, and the grain is dumped into the truck-receiving hopper. During and after dumping the grain, a drag conveyor removes the grain from the truck-receiving hopper to an elevator from which it is transferred to the storage silos. For rail receiving, the car is moved into position over the rail-receiving hopper and the grain is discharged into the hopper. Drag conveyors transport the grain to an elevator system which ties into the silo-loading system.

**The majority of the malt is loaded into closed-hopper railcars using system 100 (emissions point S01), and the remaining malt is loaded into trucks using system 200 (emissions point S02.)**

Byproducts are transported from storage silos to the load-out conveyors. Most of the byproducts are loaded onto trucks using a large hood to control emissions. A small amount of byproducts are loaded into closed hopper railcars.

#### 4.1.2 Stack S02 - System 200 – Truck Loadout for Malt and Byproduct

System 200 includes the malt, **byproduct**, and barley conveyors, elevators and spouts. Clean malt and byproducts are transported by conveyor from the storage silos to the ~~railear and~~ truck loading conveyors. ~~The majority of the malt is loaded into closed hopper railcars, and the remaining malt is loaded into trucks.~~ This system also serves several elevators, elevator boots, and drag conveyors.”

## Permit Conditions 4.3 and 4.4

EPA states that malt is not grain and is not subject to 40 CFR 60 Subpart DD. EPA's applicability determination can be found in [EPA applicability determination index](#). (note: press Ctrl and click the underlined text to open the related EPA webpage.)

The facility has requested to revise Permit Conditions 4.3 and 4.4 to identify emissions sources that are subject to requirements in 40 CFR 60 Subpart DD and sources that are not subject to the NSPS requirements.

The point sources that are not subject to visible emissions limit in the NSPS are subject to 20% opacity limit in accordance with IDAPA 58.01.01.625.

The sources that are subject to NSPS requirements are defined in Permit Condition 4.3 in accordance with 40 CFR 60.301 and 302. The specific emissions points subject to the NSPS requirements are listed in the following:

- S01 – Barley and byproduct loadout
- S02 – Barley, malt, and byproduct handling
- S03 – Barley and malt handling
- S04 – Barley cleaning and handling
- S05 – Barley transfer
- DS8 – Barley and malt transfer

Emission point S11 (head house vacuum) is not subject to NSPS Subpart DD as it is not a listed affected facility in accordance with 40 CFR 60.302(b). A vacuum system is a small housekeeping system that is designed for general dust cleanup, but will also be occasionally used for vacuuming up barley spills in the headhouse. However, vacuum systems do not fall under the definition of "grain handling operations" under the Subpart as they are not bucket elevators or legs, scale hoppers and surge bins, turn heads, scalpels, cleaners, trippers, or the headhouse or other such structures. It is clear from the definition that the Subpart is targeting systems that move bulk quantities of grain, not housekeeping tools, such as a vacuum cleaning system.

Emission Point S07 - dust transfer from malt and barley handling operations - is not subject to NSPS Subpart DD since it handles only grain dust, dirt, etc which is not considered as a grain by EPA.

Permit Conditions 4.3 and 4.4 are revised and read as the following:

### “4.3 Emissions Limits

- **40 CFR 60 Subpart DD - § 60.302 Standard for particulate matter**

In accordance with 40 CFR ~~Subpart DD~~**60.302(b)**, the PM emissions from the truck unloading station, truck loading station, railcar loading station, railcar unloading station and all grain handling operations as defined by 40 CFR 60.301 shall not exceed 0.01 gr/dscf.

**In accordance with 40 CFR 60.301(l), grain handling operations include bucket elevators or legs (excluding legs used to unload barges or ships), scale hoppers and surge bins (garners), turn heads, scalpels, cleaners, trippers, and the headhouse and other such structures.**

- PM and PM<sub>10</sub> shall not exceed any applicable emission rate limit listed in the values listed in Table 4.2...”

“4.4 Opacity Limit

- **40 CFR 60 Subpart DD - § 60.302 Standard for particulate matter**

**In accordance with 40 CFR 60.302(b), point sources of visible emissions from grain handling operations as defined in 40 CFR 60.301, truck loading and unloading of grain, railcar loading and unloading of grain shall not exceed 0% opacity in accordance with 40 CFR 60 Subpart DD. Opacity shall be determined by the procedures contained in 40 CFR 60.303 Subpart DD.**

- **In accordance with IDAPA 58.01.01.625, for point sources that are not subject to requirements in 40 CFR 60.302(b), the permittee shall not discharge any air pollutant to the atmosphere from any point of emission for a period or periods aggregating more than three minutes in any 60-minute period which is greater than 20% opacity as determined by procedures contained in IDAPA 58.01.01.625.**

The applicant has requested to use EFs in AP-42, 9.9.1, rev. 5/2003 to estimate emissions from emissions points S04, S06, and S07 instead of EFs in EPA’s Factor Information Retrieval (FIRE) database because the information in FIRE is outdated. The increase of barley unloading throughput also affects the emissions from emissions point S04. The overall estimated emissions from the affected emissions points decrease.

The applicant has requested to revise Table 4.2 of the PTC to reflect the emissions decrease from S04, S06, and S07 as shown in the following table. However, emissions from S04, S06, and S07 in Table 4.2 of the PTC are kept as they are because the facility was modeled out at these higher rates in the existing PTC at the previous permitting actions. Emissions from S03 and S05 increase slightly (i.e., from 0.77 to 0.85 T/yr for S03 and from 0.40 to 0.48 T/yr for S05) as a result of the throughput increase. These changes are made to Table 4.2 in the permit.

**BARLEY AND MALT HANDLING EMISSIONS RATES**

Source Description	PM <sub>10</sub>	
	lb/hr	T/yr <sup>1</sup>
S04	0.466 <del>2.21</del>	0.74 <del>2.95</del>
S06	0.61 <del>3.48</del>	0.58 <del>2.73</del>
S07	0.0036 <del>0.01</del>	0.02 <del>0.02</del>

Permit Condition 4.6

- The applicant requested to change measuring unit for barley throughput limit from million bushels to tons because other material handling limits in the permit, such as the maximum quantity of malt dried in the kilns, are based on tons of material.

The applicant has provided the conversion information. Based upon daily analyses of barley shipments received at the facility, the applicant has estimated that barley has a unit weight of 54.55 pounds of barley per bushel. At this conversion rate, the annual barley throughput limit of 16 million bushels per 12-month period in the old PTC is equivalent to 436,400 tons per 12-month period.

- The applicant has also requested to increase the barley unloaded throughput from 436,400 T/yr to 520,000 T/yr. This increase impact emissions at other locations because the barley unloaded at S01 is also handled at the following sources:

- S02 – Barley transfer
- S03 – In-house handling of barley
- S04 – Barley cleaning and associated handling
- S05 – Graded barley transfer to malt house
- DS8 – Barley elevator to daybin

Emissions increase from emissions units S03 and S05 are included in Table 4.2 of the permit.

The revised Permit Condition 4.6 reads as the following:

“The maximum annual barley unloaded at the facility shall not exceed **520,000 tons**~~16 million bushels~~ per any consecutive 12-month period.”

Malt Production

The facility intends to begin using a new additive in the water spray in Malt Houses 1, 2, and 3. To incorporate the additive into the spray water, operators will first dissolve the material in a small amount of ethyl alcohol, and the resulting solution will be blended into the spray water. The alcohol, which is a volatile organic compound (VOC) and a TAP as listed in IDAPA 58.01.01.585, will evaporate and be emitted to the atmosphere. The additive will be blended into the alcohol by hand in small quantities and be consumed by the malting process. Therefore, the use of this additive will not affect emissions of PM or PM<sub>10</sub>.

The malt production is not included in the permit because based on the information provided in the application, the ethyl alcohol emissions are well below its EL and are below 10% of VOC significant level. No specific permit conditions are needed to demonstrate compliance with the standard.

Old Section 5 - Summary of Emissions Limits

Old section 5 contains an emissions limits summary table, Table 5.1. It duplicates the information in the permit and conflicts with new information (i.e., new ethyl alcohol emissions counts as VOC) and is removed.

~~1. SUMMARY OF EMISSIONS LIMITS~~

~~Table 5.1 provides a summary of all emissions limits required by this permit:~~

**Table 5.1 SUMMARY OF EMISSIONS LIMITS**  
**Busch Agricultural Resources, Inc.**  
**Idaho Falls Malt Plant**  
**Emissions Limits<sup>a</sup>—Hourly (lb/hr) and Annual<sup>b</sup> (T/yr)**

Source Description	PM		PM <sub>10</sub> <sup>c</sup>		SO <sub>2</sub>		NO <sub>x</sub>		VOC		CO	
	lb/hr	T/yr <sup>f</sup>	lb/hr	T/yr <sup>f</sup>	lb/hr	T/yr <sup>f</sup>	lb/hr	T/yr <sup>f</sup>	lb/hr	T/yr <sup>f</sup>	lb/hr	T/yr <sup>f</sup>
S03	0.75	0.77	0.42	0.43								
S04	2.49	10.89	2.21	2.95								
S05	0.16	0.40	0.09	0.22								
S06	3.48	15.26	3.48	2.73								
S07	0.05	0.20	0.01	0.02								
S10 (Boilers 1-3)	0.68	1.08	0.68	1.08	0.05	0.08	9.00	14.15	0.50	0.78	7.56	11.89

Kilns 1, 2, 3 East, and 3 West NG <sup>d</sup>	2.28	7.76	2.28	7.76	0.18	0.60	29.92	102.0	1.65	5.60	25.13	85.7
Kilns 1, 2, 3 East, and 3 West Process <sup>e</sup>	17.1	74.9	15.3	67.0	192.0	95.0						
<b>Totals</b>	<b>27.0</b>	<b>111.24</b>	<b>24.43</b>	<b>82.19</b>	<b>192.2</b>	<b>95.7</b>	<b>38.9</b>	<b>116.2</b>	<b>2.15</b>	<b>6.39</b>	<b>32.73</b>	<b>97.6</b>

<sup>a</sup> As determined by a pollutant-specific EPA reference method, DEQ-approved alternative, or as determined by DEQ's emissions estimation methods used in this permit analysis.

<sup>b</sup> As determined by multiplying the actual or allowable (if actual is not available) pound-per-hour emissions rate by the allowable hours per year that the process(es) may operate(s), or by actual annual production rates. The permittee shall not exceed the T/yr listed based on any consecutive 12-month period.

<sup>c</sup> Includes condensibles.

<sup>d</sup> Limits are for all kiln burner natural gas combustion emissions combined.

<sup>e</sup> Limits are for all kiln process emissions combined.

<sup>f</sup> The permittee shall not exceed the T/yr listed based on any consecutive 12-month period.

### New Section 5 - Diesel Engine for Fire Pump

The 315 hp compression ignition reciprocating internal combustion engine is used to power the emergency fire pump. It is subject to 40 CFR 63 Subpart ZZZZ. Section 5 includes requirements in the Subpart that apply to the engine. Detailed discussions and regulatory analysis can be found in Appendix E.

The engine is subject to 20% opacity limit in accordance with IDAPA 58.01.01.625. This limit is not included in Section 5 because it has already been included in the facility's Tier I operating permit as a facility-wide permit condition.

### General Provision

The general provision is replaced with the one taken from the current PTC template.

## **PUBLIC REVIEW**

### ***Public Comment Opportunity***

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

## **APPENDIX A – PROCESS DESCRIPTION AND THE PROCESS FLOW DIAGRAM**

(Taken from the application supplement materials submitted on January 14 and December 1, 2010 and the facility comments on the draft permit submitted on February 7, 2011)

# Busch Agricultural Resources, LLC

## Idaho Falls Malt Facility

### Process Description

The Busch Agricultural Resources, LLC (Busch) Idaho Falls Malt Facility (facility) produces barley malt from barley grains. Figure 1 presents the layout of the facility. The facility has three process unit areas; grains handling, malt production and utilities operations. Regulated pollutants are emitted from the grain handling areas, the malt production areas (malt drying) and utilities operations.

The PTC application includes the following requested modifications to the facility's Permit to Construct (PTC):

1. Implementation of the use of a new additive which speeds the germination process, and will result in an increase in processing rates over the next several years. Busch projects that the increase will not affect the facility's compliance with most existing throughput limits (e.g., limits on malt dried in kilns, natural gas combustion, etc.), but will require an increase in the throughput limit for barley unloading. The additive must be dissolved in alcohol prior to use, so the change will also result in a small increase in emissions of volatile organic compounds (VOCs) at the Malt Houses.
2. Modifications to the description of the configuration and operation of S01 and S02. The description was accurate when the original PTC was issued, however the configuration was changed in 2003. The correct configuration is described in the process description below.

The process description below was presented in Busch's Tier 1 operating permit application, submitted in June, 2005. Changes to the process since this submittal are shown in underline/strikeout format in the process description. The process flow diagram for the grain handling and malt production operations at the facility is shown on Figure 2.

#### 1 Grains Handling

The grains handling area includes equipment for loading and unloading grain, malt and byproduct materials, equipment for cleaning grain and malt, and equipment for conveying and storing grain and malt. The grain received by the facility is unloaded and conveyed to cleaners and storage bins prior to being conveyed to the malting process areas. All grain handling equipment at the facility has been carefully designed to limit damage to the grain. This is accomplished by limiting the size and number of transfer points, the number of times grain is handled and fall distances for grain.

Malt produced at the plant is conveyed to cleaners and storage bins prior to being loaded for shipment. By-products handling at the plant includes the conveying, storage and loadout of grain which does not meet facility specifications, malt, sprouts, and grain dust.

The handling and storage of the grains, malts and by-products generates particulate matter (PM). All grains handling at the facility includes the use of baghouse control devices to minimize PM emissions. The baghouse control devices are identified as System 100 through System 800. The descriptions of the processes each system controls are provided below.

##### 1.1 System 100 – Barley Unloading, ~~and~~ Byproduct Loadout, and Rail Malt Loadout (Emission Point – S01)

Barley is delivered to the plant by truck or railcar. For truck deliveries, the truck is driven into the shipping and receiving building, and the grain is dumped into the truck-receiving hopper. During and after dumping the grain, a drag conveyor removes the grain from the truck-receiving hopper to an elevator from which it is transferred to the storage silos. For rail receiving, the car is moved into position over the rail receiving hopper and the grain is discharged into the hopper. Drag conveyors transport the grain to an elevator system, which ties into the silo loading system. Via this request to modify the PTC, Busch is requesting an increase in the barley unloading limit at this source from 436,400 tons per 12-month period of barley throughput to 520,000 tons per 12-month period.

The majority of the malt is loaded into closed-hopper railcars at S01, and the remaining malt is loaded into trucks at S02.

By-products are transported from storage silos to the load-out conveyors. The byproducts are loaded onto trucks using a large hood to control emissions. A small amount of byproducts are loaded into closed hopper railcars.

#### 1.2 System 200 – ~~Malt and Byproduct~~ Truck Loadout for Malt and Byproduct (Emission Point – S02)

System 200 includes the malt, byproduct and barley conveyors, elevators and spouts. Clean malt and by-products are transported by conveyor from the storage silos to the ~~railear~~ and truck loading conveyors and loaded on to trucks. ~~The majority of the malt is loaded into closed hopper railcars, and the remaining malt is loaded into trucks.~~ This system also serves several elevators, elevator boots and drag conveyors.

#### 1.3 System 300 – In-House Handling of Barley and Malt (Emission Point – S03)

System 300 controls emissions from the malt and barley conveyance within the facility by a series of enclosed conveyors, elevators and spouts. This includes the storage silo loading system, the silos, the kiln malt storage bins and the shipping malt storage bin.

#### 1.4 System 400 – Barley Cleaning, Grading, and Associated Handling (Emission Point – S04)

System 400 controls emissions from the barley cleaning system and associated handling. The barley cleaning system receives barley from storage silos via an enclosed elevator. The cleaning and grading system is headed by a garner grain bin, which is filled from the elevator leg. From the garner bin the grain drops to a grain cleaner. The cleaner screens off shorts that are discharged to a portable open container. The cleaner also aspirates dusts and separates chaff and other materials. From the grain cleaner, the grain is directed to cylinder separators for length grading. The barley is elevated to steeping or to storage. The by-products are routed to the feed bins and are removed from the facility via the malt load-out system.

#### 1.5 System 500 – Graded Barley Transfer to Malt House (Emission Point – S05)

System 500 controls emissions from the graded barley transfer to germination where steeping and germination processes occur. Barley transfer to steeping is accomplished by one of two elevators. From the garner, barley is discharged through aspirators to one of two conveyors, which feed grain to the steep tanks. A manually operated diverter determines which tank will receive the barley.

#### 1.6 System 600 – Dry Malt Cleaning, Storage, and Associated Handling (Emission Point – S06)

System 600 controls emissions from malt cleaning, storage and malt handling. In these processes, kiln malt is delivered by enclosed conveyors from the kiln to the kiln malt hopper. From this hopper, the malt is spouted to two malt cleaners to remove the sprouts. The cleaned malt is spouted to an elevator, which delivers it to the storage silos.

#### 1.7 System 700 – Pneumatic Transfer of Dust from Baghouse (Emission Point – S07)

System 700 controls emissions from the pneumatic transfer system used to transport the dust collected by the dust collection systems (System 100 through 600) and the facility sprout cleaning system.

#### 1.8 System 800 – Germination Towers Barley Handling and Kiln 3 Malt Handling (Emission Point – DS8)

System 800 controls emissions from the handling of graded barley at the germination towers and Kiln 3 (east and west) and the handling of malt from Kiln 3 (east and west) back to the headhouse for storage/cleaning. Emissions due to the transfer of graded barley from the daybin elevator to the barley daybin located at the germination towers are controlled by this dust system.

In addition, emissions due to the transfer of barley from the barley daybin to the barley washer via screw conveyor are controlled by System 800. System 800 also controls emissions from the transfer of malt from Kiln 3 (east and west) to the malt leg transfer conveyor via the kiln unloading drag conveyor. Emissions from the

transfer of malt from the Kiln 3 (east and west) malt leg transfer conveyor to the kiln malt daybin and the transfer out of the daybin to the headhouse return conveyor are also controlled by System 800.

### 1.9 Vacuum Systems (Emission Points – S11, S12, S13)

The facility has three vacuum systems at the plant used for cleaning of grain handling area. The first is for cleaning the head house and the second is located in Kiln (1 and 2) building. The third vacuum system was installed near the Kiln 3 (east and west) building for housekeeping around Kiln 3, the daybins, and the conveyor bridge. The vacuum systems are controlled using baghouses similar to the other dust control systems used at the facility.

## 2 Malt Production

### 2.1 Steeping

The malting process begins with the transfer of cleaned barley grains to steeping tanks. In the steeping process, the water content of the grain is increased using a controlled heated water soak. The soak is accomplished through a carefully controlled process of filling, skimming and aeration. The steeping process takes approximately two days and consists of repeatedly submerging the barley in controlled temperature water. During the steeping process the volume of barley increases with increasing moisture content. When the barley moisture content reaches specifications, steeping is complete and the grain becomes green malt and is transferred to germination beds.

### 2.2 Germination

During the germinating process, the barley is turned and sprayed with water. The moisture content of the barley is maintained at specified levels. In the germination beds, the green malt is allowed to germinate (grow) while cool, humid air is drawn through the beds. The air is used to ensure proper moisture levels and temperatures are maintained in the beds during the germination process.

To accelerate the germination process, Busch proposes to apply an additive to the germinating malt. To incorporate the additive into the spray water, operators will first dissolve the material in a small amount of ethyl alcohol, and the resulting solution will be blended into the spray water. The alcohol, which is a volatile organic compound (VOC), will evaporate and be emitted to the atmosphere. The additive will be blended into the alcohol by hand in small quantities, and will be consumed by the malting process.

Upon completion of the germination process, the green malt is transferred to a kiln.

### 2.3 Kiln Drying

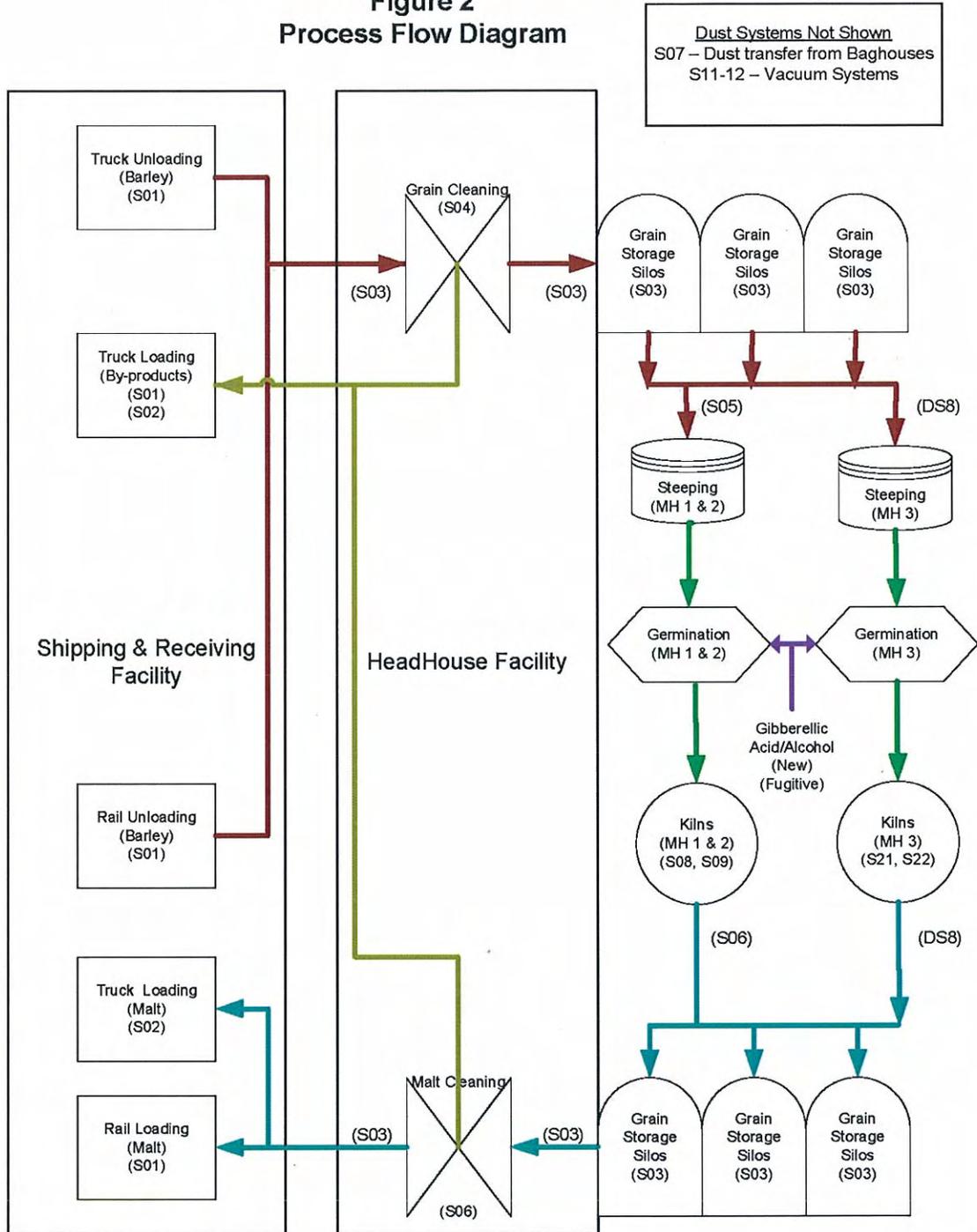
In the kiln, the green malt is dried. The kilns are heated using indirect fired natural gas burners. Heated air is recovered after passing through the kilns using a heat recovery unit. The drying process is a batch process requiring approximately 24 hours for completion of the drying cycle. Each batch of green malt undergoes a sulfuring treatment once during the drying cycle. The sulfuring treatment process bleaches and brightens the malt kernel. Sulfuring is accomplished by burning sulfur and allowing the SO<sub>2</sub> formed to contact the malt during the drying process. Emissions from the steeping, germination and drying process include particulate handling, all criteria pollutants from burning natural gas and SO<sub>2</sub> from sulfuring.

## 3 Utilities

Utility operations include the operation of three natural gas fired boilers. The boilers provide steam for the malting process equipment. There is also an emergency fire water pump powered by a 315-HP diesel engine.

**Busch Agricultural Resources, LLC  
Idaho Falls Malt Plant  
Application for Permit to Construct**

**Figure 2  
Process Flow Diagram**



## APPENDIX B – EMISSIONS INVENTORIE

(Taken from the revised EI spreadsheet submitted on February 7, 2011)

Source Type	Emission Unit #	Source Name	Description	Permitted Limits		Potential Emissions (tons/year)							
				Annual Throughput	Throughput Units	PM	PM <sub>10</sub>	NO <sub>x</sub>	CO	SO <sub>x</sub>	VOC		
Grain Handling	SO1	Dust System #1	Barley Unloading/Conveying	520,000	tons	18.0	18.0						
Grain Handling	SO1	Dust System #1	By-Product Load-out	32,730	tons								
Grain Handling	SO2	Dust System #2	By-Product Load-out	32,730	tons	14.8	14.8						
Grain Handling	SO2	Dust System #2	Malt Load-out	404,700	tons								
Grain Handling	SO2	Dust System #2	Barley Transfer	520,000	tons								
Grain Handling	SO2	Dust System #2	Malt Transfer	404,700	tons								
Grain Handling	SO3	Dust System #3	In-house Handling of Barley	520,000	tons	0.48	0.27						
Grain Handling	SO3	Dust System #3	In-house Handling of Malt	404,700	tons	0.37	0.21						
Grain Handling	SO4	Dust System #4	Barley Cleaning, Grading and Associated Handling	520,000	tons	10.89	0.74						
Grain Handling	SO5	Dust System #5	Graded Barley Transfer to Malt House	520,000	tons	0.48	0.27						
Grain Handling	SO6	Dust System #6	Dry Malt Cleaning, Storage and Associated Handling	404,700	tons	15.26	0.58						
Grain Handling	SO7	Dust System #7	Transfer of Dust from Dust Systems Nos. 1, 2, 4, 5 & 6	21,900	tons	0.20	0.02						
Grain Handling	DS8	Dust System #8	Barley Handling	520,000	tons	2.6	2.6						
Grain Handling	DS8	Dust System #8	Malt Handling	404,700	tons								
Fuel Burning	S08	Kiln #1	Kiln #1	510	MMscf	1.94	1.94	25.50	21.42	0.15	1.40		
Process	S08	Kiln #1	Drying of Malt	101,175	tons	18.72	16.75						
Process	S08	Kiln #1	Sulfuring (introduction of SO <sub>2</sub> to malt)	47,500	lbs					23.75			
Fuel Burning	S09	Kiln #2	Kiln #2	510	MMscf	1.94	1.94	25.50	21.42	0.15	1.40		
Process	S09	Kiln #2	Drying of Malt	101,175	tons	18.72	16.75						
Process	S09	Kiln #2	Sulfuring (introduction of SO <sub>2</sub> to malt)	47,500	lbs					23.75			
Fuel Burning	S10	Boilers	3 Boilers @ 30 MMBtu/hr (Natural Gas fired)	283	MMscf	1.08	1.08	14.15	11.89	0.08	0.78		
Grain Handling	S11	Head House	Vacuum system for head house	17,520	tons	0.05	0.004						



## APPENDIX C – FACILITY DRAFT COMMENTS

**The following comments were received from the facility on January 14, and February 7, 2011:**

- Facility Comment:** Submitted regulatory analysis on 40 CFR 63 Subpart ZZZZ for the engine that powers emergency fire pump on January 14, 2011.
- DEQ Response:** New Section 5 includes the requirements in 40 CFR 63 Subpart ZZZZ for the engine.
- Facility Comment:** Emission point S11 (head house vacuum) and emission point S07 (dust transfer from malt and barley handling operations) are not subject to NSPS Subpart DD.
- DEQ Response:** Agree. Changes are made to the SOB, Permit Conditions Review Section, Permit Conditions 4.3 and 4.4. Detailed discussions can be found there.
- Facility Comment:** Remove reference to the specific additive because it is not a regulated air pollutant.
- DEQ Response:** Removed.
- Facility Comment:** Emissions from S03 and S05 increase slightly. Table 4.2 should be modified to include these slight increases in S03 and S05 emissions.
- DEQ Response:** Changes are made to Table 4.2 of the permit.
- Facility Comment:** Add the following to Application Scope Section in the SOB and Purpose Section in the permit:
- Include the diesel fired emergency fire pump engine and the requirements of 40 CFR Part 63, Subpart ZZZZ in the permit.
- DEQ Response:** Added.
- Facility Comment:** Add fire pump information to Table 1 of the SOB.
- DEQ Response:** Added.
- Facility Comment:** Remove the original proposed lower limits from the table titled "BARLEY AND MALT HANDLING EMISSIONS RATES" In the SOB.
- DEQ Response:** The table has been revised. It intends to show the new lower rates as a result of this permitting action. The paragraph above the table is revised to clarify the intent.
- Facility Comment:** The applicant requested to remove information on alcohol usage.
- DEQ Response:** The information on alcohol usage is used to estimate emissions. It is emissions related information and is used in the SOB.
- The entire malt production section in the draft permit is removed because based on the information provided in the application, the ethyl alcohol emissions are well below its EL and are below 10% of VOC significant level. No specific permit conditions are needed to demonstrate compliance with the standard.

## APPENDIX D – PROCESSING FEE

In accordance with IDAPA 58.01.01.225, the PTC processing fee is \$2,500 because the total emissions increase is within the range of one to 10 tons per year.

Emissions Inventory			
Pollutant	PTE - current (T/yr)	PTE - proposed (T/yr)	Annual Emissions Change (T/yr)
NO <sub>x</sub>	116.6	116.6	0.0
SO <sub>2</sub>	95.7	95.7	0.0
CO	97.7	97.7	0.0
PM <sub>10</sub>	113.2	113.4	0.2
VOC	6.4	8.1	1.7
TAPS/HAPS <sup>a</sup>	2.2	2.2	0.0
<b>Total:</b>	<b>431.8</b>	<b>433.7</b>	<b>1.9</b>
<b>Fee Due</b>	<b>\$2500.0</b>		

a. Ethyl alcohol increase is counted towards VOC emissions increase and is not counted towards TAP emissions increase.

## APPENDIX E – REGULATORY ANALYSIS FOR 40 CFR 63 SUBPART ZZZZ

**e-CFR Data is current as of January 10, 2011**

### Title 40: Protection of Environment

[PART 63—NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS FOR SOURCE CATEGORIES \(CONTINUED\)](#)

[Browse Next](#)

### **Subpart ZZZZ—National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines**

Source: 69 FR 33506, June 15, 2004, unless otherwise noted.

#### **What This Subpart Covers**

#### **§ 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.

[73 FR 3603, Jan. 18, 2008]

#### **§ 63.6585 Am I subject to this subpart?**

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

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

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

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

(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.

[69 FR 33506, June 15, 2004, as amended at 73 FR 3603, Jan. 18, 2008]

The Busch Agricultural Resources, LLC Idaho Falls Malt Facility is an area source of hazardous air pollutants that operates a 315-HP compression ignition engine to power an emergency fire pump. Therefore the engine is subject to this subpart.

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

This subpart applies to each affected source.

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

##### **(1) Existing stationary RICE.**

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

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

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

## The engine commenced construction before June 12, 2006, and therefore is an existing stationary RICE

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

(vi) Existing residential emergency stationary RICE located at an area source of HAP emissions;

(vii) Existing commercial emergency stationary RICE located at an area source of HAP emissions; or

(viii) Existing institutional emergency stationary RICE located at an area source of HAP emissions.

## The engine is an existing emergency stationary RICE at an area source. However, the facility is not a residential, commercial, or institutional facility, so this limited exemption does not apply.

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

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

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

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

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

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

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

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

[69 FR 33506, June 15, 2004, as amended at 73 FR 3604, Jan. 18, 2008; 75 FR 9674, Mar. 3, 2010; 75 FR 37733, June 30, 2010; 75 FR 51588, Aug. 20, 2010]

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

(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.

**The engine is an existing stationary RICE located at an area source. The compliance date is May 3, 2013.**

(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.

(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.

(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.

(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.

(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.

(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.

(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.

(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.

[69 FR 33506, June 15, 2004, as amended at 73 FR 3604, Jan. 18, 2008; 75 FR 9675, Mar. 3, 2010; 75 FR 51589, Aug. 20, 2010]

## **Emission and Operating Limitations**

### **§ 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.

[73 FR 3605, Jan. 18, 2008, as amended at 75 FR 9675, Mar. 3, 2010]

### **§ 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.

[73 FR 3605, Jan. 18, 2008, as amended at 75 FR 9675, Mar. 3, 2010; 75 FR 51589, Aug. 20, 2010]

### **§ 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?**

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.

[75 FR 51589, Aug. 20, 2010]

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

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

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

The engine is subject to the work practice standards of Table 2d. The requirements in Table 2d that apply are:

- Change oil and filter every 500 hours of operation or annually, whichever comes first,
- Inspect air cleaner every 1000 hours of operation or annually, whichever comes first,
- Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.

None of the operating limitations in Table 2b apply to the engine.

(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.

[75 FR 9675, Mar. 3, 2010, as amended at 75 FR 51589, Aug. 20, 2010]

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

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

[75 FR 51589, Aug. 20, 2010]

## **General Compliance Requirements**

### **§ 63.6605 What are my general requirements for complying with this subpart?**

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

(b) At all times you must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require you to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

The engine will be in compliance by May 3, 2013, and will operate in compliance with this subpart at all times after that date.

[75 FR 9675, Mar. 3, 2010]

## **Testing and Initial Compliance Requirements**

### **§ 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.
- (1) The test must have been conducted using the same methods specified in this subpart, and these methods must have been followed correctly.
  - (2) The test must not be older than 2 years.
  - (3) The test must be reviewed and accepted by the Administrator.
  - (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.
  - (5) The test must be conducted at any load condition within plus or minus 10 percent of 100 percent load.

[69 FR 33506, June 15, 2004, as amended at 73 FR 3605, Jan. 18, 2008]

### **§ 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**

### **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.

[73 FR 3605, Jan. 18, 2008, as amended at 75 FR 51589, Aug. 20, 2010]

### **§ 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.

(1) The test must have been conducted using the same methods specified in this subpart, and these methods must have been followed correctly.

(2) The test must not be older than 2 years.

(3) The test must be reviewed and accepted by the Administrator.

(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.

[75 FR 9676, Mar. 3, 2010, as amended at 75 FR 51589, Aug. 20, 2010]

### **§ 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.

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

(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.

(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:

$$\frac{C_i - C_o}{C_i} \times 100 = R \quad (\text{Eq. 1})$$

Where:

$C_i$  = concentration of CO or formaldehyde at the control device inlet,

$C_o$  = concentration of CO or formaldehyde at the control device outlet, and

R = percent reduction of CO or formaldehyde emissions.

(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.

(i) Calculate the fuel-specific  $F_v$  value for the fuel burned during the test using values obtained from Method 19, section 5.2, and the following

equation:

$$F_o = \frac{0.209 F_d}{F_c} \quad (\text{Eq. 2})$$

Where:

$F_o$  = Fuel factor based on the ratio of oxygen volume to the ultimate  $\text{CO}_2$  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,  $\text{dsm}^3 / \text{J}$  ( $\text{dscf}/10^6$  Btu).

$F_c$  = Ratio of the volume of  $\text{CO}_2$  produced to the gross calorific value of the fuel from Method 19,  $\text{dsm}^3 / \text{J}$  ( $\text{dscf}/10^6$  Btu).

(ii) Calculate the  $\text{CO}_2$  correction factor for correcting measurement data to 15 percent oxygen, as follows:

$$X_{\text{CO}_2} = \frac{5.9}{F_o} \quad (\text{Eq. 3})$$

Where:

$X_{\text{CO}_2}$  =  $\text{CO}_2$  correction factor, percent.

5.9 = 20.9 percent  $\text{O}_2$  - 15 percent  $\text{O}_2$ , the defined  $\text{O}_2$  correction value, percent.

(iii) Calculate the  $\text{NO}_x$  and  $\text{SO}_2$  gas concentrations adjusted to 15 percent  $\text{O}_2$  using  $\text{CO}_2$  as follows:

$$C_{\text{adj}} = C_d \frac{X_{\text{CO}_2}}{\% \text{CO}_2} \quad (\text{Eq. 4})$$

Where:

$\% \text{CO}_2$  = Measured  $\text{CO}_2$  concentration measured, dry basis, percent.

(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.

(1) Identification of the specific parameters you propose to use as operating limitations;

(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;

(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;

(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

(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.

(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;

(2) A discussion of the relationship, if any, between changes in the parameters and changes in HAP emissions;

(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;

- (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;
- (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;
- (6) For the parameters, a discussion identifying the frequency and methods for recalibrating the instruments you could use to monitor them; and
- (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 accuracy in percentage of true value must be provided.

[69 FR 33506, June 15, 2004, as amended at 75 FR 9676, Mar. 3, 2010]

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

- (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.
  - (1) Each CEMS must be installed, operated, and maintained according to the applicable performance specifications of 40 CFR part 60, appendix B.
  - (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.
  - (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.
  - (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 (8) of this section.
  - (1) The CPMS must complete a minimum of one cycle of operation for each successive 15-minute period. You must have a minimum of four successive cycles of operation to have a valid hour of data.
  - (2) Except for monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), you must conduct all monitoring in continuous operation at all times that the unit 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.
  - (3) For purposes of calculating data averages, you must not use data recorded during monitoring malfunctions, associated repairs, out of control periods, or required quality assurance or control activities. You must use all the data collected during all other periods in assessing compliance. Any 15-minute period for which the monitoring system is out-of-control and data are not available for required calculations constitutes a deviation from the monitoring requirements.
  - (4) Determine the 3-hour block average of all recorded readings, except as provided in paragraph (b)(3) of this section.
  - (5) Record the results of each inspection, calibration, and validation check.
  - (6) You must develop a site-specific monitoring plan that addresses paragraphs (b)(6)(i) through (vi) of this section.
    - (i) Installation of the CPMS sampling probe or other interface at the appropriate location to obtain representative measurements;
    - (ii) Performance and equipment specifications for the sample interface, parametric signal analyzer, and the data collection and reduction systems;
    - (iii) Performance evaluation procedures and acceptance criteria ( e.g., calibrations);
    - (iv) Ongoing operation and maintenance procedures in accordance with the general requirements of §63.8(c)(1), (c)(3), and (c)(4)(ii);
    - (v) Ongoing data quality assurance procedures in accordance with the general requirements of §63.8(d); and
    - (vi) Ongoing recordkeeping and reporting procedures in accordance with the general requirements of §63.10(c), (e)(1), and (e)(2)(i).
  - (7) You must conduct a performance evaluation of each CPMS in accordance with your site-specific monitoring plan.
  - (8) You must operate and maintain the CPMS in continuous operation according to the 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:

(1) An existing stationary RICE with a site rating of less than 100 HP located at a major source of HAP emissions;

(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;

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

(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;

(5) An existing non-emergency, non-black start 2SLB stationary RICE located at an area source of HAP emissions;

(6) An existing non-emergency, non-black start landfill or digester gas stationary RICE located at an area source of HAP emissions;

(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;

(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;

(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

(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.

**The engine is subject to this requirement, and the facility will operate the engine according to the manufacturer's emission-related written instructions or will develop its own maintenance plan by the compliance date of May 3, 2013.**

(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.

**The engine will be equipped with an hour meter by the compliance date of May 3, 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 (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.

(1) Install a closed crankcase ventilation system that prevents crankcase emissions from being emitted to the atmosphere, or

(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.

(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.

**The facility will operate the engine in accordance with this requirement.**

(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.

(k) If you have an operating limitation that requires the use of a temperature measurement device, you must meet the requirements in paragraphs (k)(1) through (4) of this section.

(1) Locate the temperature sensor and other necessary equipment in a position that provides a representative temperature.

(2) Use a temperature sensor with a minimum tolerance of 2.8 degrees Celsius (5 degrees Fahrenheit), or 1.0 percent of the temperature value, whichever is larger, for a noncryogenic temperature range.

(3) Use a temperature sensor with a minimum tolerance of 2.8 degrees Celsius (5 degrees Fahrenheit), or 2.5 percent of the temperature value, whichever is larger, for a cryogenic temperature range.

(4) Conduct a temperature measurement device calibration check at least every 3 months.

[69 FR 33506, June 15, 2004, as amended at 73 FR 3606, Jan. 18, 2008; 75 FR 9676, Mar. 3, 2010; 75 FR 51589, Aug. 20, 2010]

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

(a) You must demonstrate initial compliance with each emission and operating limitation that applies to you according to Table 5 of this subpart.

**There are no requirements for this engine in Table 5 of this Subpart.**

(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.

## **Continuous Compliance Requirements**

### **§ 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, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), you must monitor continuously at all times that the stationary RICE is operating.

(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.

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

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

**The facility must operate in continuous compliance with the operating limitations in Table 2d, according to the methods in Table 6. The applicable requirements in Table 6 are:**

- Operate and maintain the stationary RICE according to the manufacturer's emission-related operation and maintenance instructions; or
- Develop and follow 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.

(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.

The facility will report each instance in which it did not meet the emission limitations. The emissions limitations for this engine are work practice standards.

(c) [Reserved]

(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.

Table 8 is the Applicability of General Provisions to Subpart ZZZZ. This facility will report any non-compliance with this Table.

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

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

(ii) You may operate your emergency stationary RICE for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by Federal, State or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours per year. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency RICE beyond 100 hours per year.

(iii) You may operate your emergency stationary RICE up to 50 hours per year in non-emergency situations, but those 50 hours are counted towards the 100 hours per year provided for maintenance and testing. The 50 hours per year for non-emergency situations cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity; except that owners and operators may operate the emergency engine for a maximum of 15 hours per year as part of a demand response program if the regional transmission organization or equivalent balancing authority and transmission operator has determined there are emergency conditions that could lead to a potential electrical blackout, such as unusually low frequency, equipment overload, capacity or energy deficiency, or unacceptable voltage level. The engine may not be operated for more than 30 minutes prior to the time when the emergency condition is expected to occur, and the engine operation must be terminated immediately after the facility is notified that the emergency condition is no longer imminent. The 15 hours per year of demand response operation are counted as part of the 50 hours of operation per year provided for non-emergency situations. The supply of emergency power to another entity or entities pursuant to financial arrangement is not limited by this paragraph (f)(1)(iii), as long as the power provided by the financial arrangement is limited to emergency power.

The facility will operate the engine in accordance with the requirements of this section by May 3, 2013.

(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.

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

(ii) You may operate your emergency stationary RICE for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by 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.

(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.

## **Notifications, Reports, and Records**

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

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

- (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.
- (2) An existing stationary RICE located at an area source of HAP emissions.
- (3) A stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions.
- (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.
- (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.

**The engine is an existing stationary emergency RICE, so the notifications in this section are not required.**

- (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).
- (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.
- (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).

[73 FR 3606, Jan. 18, 2008, as amended at 75 FR 9677, Mar. 3, 2010; 75 FR 51591, Aug. 20, 2010]

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

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

(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.

(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.

(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.

(8) For annual Compliance reports, each subsequent Compliance report must cover the annual reporting period from January 1 through December 31.

(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.

(1) Company name and address.

(2) Statement by a responsible official, with that official's name, title, and signature, certifying the accuracy of the content of the report.

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

(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.

(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.

(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.

(1) The total operating time of the stationary RICE at which the deviation occurred during the reporting period.

(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.

(1) The date and time that each malfunction started and stopped.

(2) The date, time, and duration that each CMS was inoperative, except for zero (low-level) and high-level checks.

(3) The date, time, and duration that each CMS was out-of-control, including the information in §63.8(c)(8).

(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.

(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.

(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.

(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.

(8) An identification of each parameter and pollutant (CO or formaldehyde) that was monitored at the stationary RICE.

(9) A brief description of the stationary RICE.

(10) A brief description of the CMS.

(11) The date of the latest CMS certification or audit.

(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.

### This facility will report any deviation in the semiannual monitoring report as required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A).

(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.

(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.

(2) The operating limits provided in your federally enforceable permit, and any deviations from these limits.

(3) Any problems or errors suspected with the meters.

[69 FR 33506, June 15, 2004, as amended at 75 FR 9677, Mar. 3, 2010]

## § 63.6655 What records must I keep?

(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.

(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).

(2) Records of the occurrence and duration of each malfunction of operation ( *i.e.*, process equipment) or the air pollution control and monitoring equipment.

### The facility is required to maintain these records.

(3) Records of performance tests and performance evaluations as required in §63.10(b)(2)(viii).

(4) Records of all required maintenance performed on the air pollution control and monitoring equipment.

(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.

(1) Records described in §63.10(b)(2)(vi) through (xi).

(2) Previous ( *i.e.*, superseded) versions of the performance evaluation plan as required in §63.8(d)(3).

(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.

### The facility is required to maintain these records.

(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:

(1) An existing stationary RICE with a site rating of less than 100 brake HP located at a major source of HAP emissions.

(2) An existing stationary emergency RICE.

(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.

### The facility is required to maintain these records because the engine is an existing stationary emergency RICE, and is subject to management practices in Table 2d.

(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.

(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.

(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 facility is required to maintain the records described in this section.

[69 FR 33506, June 15, 2004, as amended at 75 FR 9678, Mar. 3, 2010; 75 FR 51592, Aug. 20, 2010]

### **§ 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 facility is subject to these recordkeeping requirements for the engine.

[69 FR 33506, June 15, 2004, as amended at 75 FR 9678, Mar. 3, 2010]

## **Other Requirements and Information**

### **§ 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.

[75 FR 9678, Mar. 3, 2010]

### **§ 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:

- (1) Approval of alternatives to the non-opacity emission limitations and operating limitations in §63.6600 under §63.6(g).
- (2) Approval of major alternatives to test methods under §63.7(e)(2)(ii) and (f) and as defined in §63.90.
- (3) Approval of major alternatives to monitoring under §63.8(f) and as defined in §63.90.
- (4) Approval of major alternatives to recordkeeping and reporting under §63.10(f) and as defined in §63.90.
- (5) Approval of a performance test which was conducted prior to the effective date of the rule, as specified in §63.6610(b).

### **§ 63.6675 What definitions apply to this subpart?**

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:

*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.

*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 of 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.

*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.

*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.

*ISO standard day conditions* means 288 degrees Kelvin (15 degrees Celsius), 60 percent relative humidity and 101.3 kilopascals pressure.

*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>.

*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 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.

**This engine is a Stationary RICE as defined in this Subpart.**

*Stationary RICE test cell/stand* means an engine test cell/stand, as defined in subpart P P P P P 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 Z Z Z Z.

*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.

[69 FR 33506, June 15, 2004, as amended at 71 FR 20467, Apr. 20, 2006; 73 FR 3607, Jan. 18, 2008; 75 FR 9679, Mar. 3, 2010; 75 FR 51592, Aug. 20, 2010]

**Table 1ato Subpart ZZZZ of Part 63— Emission Limitations for Existing, New, and Reconstructed Spark Ignition, 4SRB Stationary RICE >500 HP Located at a Major Source of HAP Emissions**

As stated in §§63.6600 and 63.6640, you must comply with the following emission limitations at 100 percent load plus or minus 10 percent for existing, new and reconstructed 4SRB stationary RICE >500 HP located at a major source of HAP emissions:

For each . . .	You must meet the following emission limitation, except during periods of startup . . .	During periods of startup you must . . .
1. 4SRB stationary RICE	a. Reduce formaldehyde emissions by 76 percent or more. If you commenced construction or reconstruction between December 19, 2002 and June 15, 2004, you may reduce formaldehyde emissions by 75 percent or more until June 15, 2007 or	Minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. <sup>1</sup>
	b. Limit the concentration of formaldehyde in the stationary RICE exhaust to 350 ppbvd or less at 15 percent O <sub>2</sub>	

<sup>1</sup>Sources can petition the Administrator pursuant to the requirements of 40 CFR 63.6(g) for alternative work practices.

[75 FR 9679, Mar. 3, 2010, as amended at 75 FR 51592, Aug. 20, 2010]

**Table 1bto Subpart ZZZZ of Part 63—Operating Limitations for Existing, New, and Reconstructed Spark Ignition 4SRB Stationary RICE >500 HP Located at a Major Source of HAP Emissions and Existing Spark Ignition 4SRB Stationary RICE >500 HP Located at an Area Source of HAP Emissions**

As stated in §§63.6600, 63.6630 and 63.6640, you must comply with the following operating limitations for existing, new and reconstructed 4SRB stationary RICE >500 HP located at a major source of HAP emissions and existing 4SRB stationary RICE >500 HP located at an area source of HAP emissions that operate more than 24 hours per calendar year:

For each . . .	You must meet the following operating limitation . . .
1. 4SRB stationary RICE complying with the requirement to reduce formaldehyde emissions by	a. maintain your catalyst so that the pressure drop across the catalyst does not change by more than 2 inches of water at 100

76 percent or more (or by 75 percent or more, if applicable) and using NSCR; or	percent load plus or minus; 10 percent from the pressure drop across the catalyst measured during the initial performance test and
4SRB stationary RICE complying with the requirement to limit the concentration of formaldehyde in the stationary RICE exhaust to 350 ppbvd or less at 15 percent O <sub>2</sub> and using NSCR; or	b. maintain the temperature of your stationary RICE exhaust so the catalyst inlet temperature is greater than or equal to 750 °F and less than or equal to 1250 °F.
4SRB stationary RICE complying with the requirement to limit the concentration of formaldehyde in the stationary RICE exhaust to 2.7 ppmvd or less at 15 percent O <sub>2</sub> and using NSCR.	
2. 4SRB stationary RICE complying with the requirement to reduce formaldehyde emissions by 76 percent or more (or by 75 percent or more, if applicable) and not using NSCR; or	Comply with any operating limitations approved by the Administrator.
4SRB stationary RICE complying with the requirement to limit the concentration of formaldehyde in the stationary RICE exhaust to 350 ppbvd or less at 15 percent O <sub>2</sub> and not using NSCR; or	
4SRB stationary RICE complying with the requirement to limit the concentration of formaldehyde in the stationary RICE exhaust to 2.7 ppmvd or less at 15 percent O <sub>2</sub> and using NSCR.	

[75 FR 51592, Aug. 20, 2010]

**Table 2a to Subpart ZZZZ of Part 63—Emission Limitations for New and Reconstructed 2SLB and Compression Ignition Stationary RICE >500 HP and New and Reconstructed 4SLB Stationary RICE ≥250 HP Located at a Major Source of HAP Emissions**

As stated in §§63.6600 and 63.6640, you must comply with the following emission limitations for new and reconstructed lean burn and new and reconstructed compression ignition stationary RICE at 100 percent load plus or minus 10 percent:

For each . . .	You must meet the following emission limitation, except during periods of startup . . .	During periods of startup you must . . .
1. 2SLB stationary RICE	a. Reduce CO emissions by 58 percent or more; or b. Limit concentration of formaldehyde in the stationary RICE exhaust to 12 ppmvd or less at 15 percent O <sub>2</sub> . If you commenced construction or reconstruction between December 19, 2002 and June 15, 2004, you may limit concentration of formaldehyde to 17 ppmvd or less at 15 percent O <sub>2</sub> until June 15, 2007	Minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. <sup>1</sup>

2. 4SLB stationary RICE	a. Reduce CO emissions by 93 percent or more; or	
	b. Limit concentration of formaldehyde in the stationary RICE exhaust to 14 ppmvd or less at 15 percent O <sub>2</sub>	
3. CI stationary RICE	a. Reduce CO emissions by 70 percent or more; or	
	b. Limit concentration of formaldehyde in the stationary RICE exhaust to 580 ppbvd or less at 15 percent O <sub>2</sub>	

<sup>1</sup>Sources can petition the Administrator pursuant to the requirements of 40 CFR 63.6(g) for alternative work practices.

[75 FR 9680, Mar. 3, 2010]

**Table 2b to Subpart ZZZZ of Part 63— Operating Limitations for New and Reconstructed 2SLB and Compression Ignition Stationary RICE >500 HP Located at a Major Source of HAP Emissions, New and Reconstructed 4SLB Stationary RICE ≥250 HP Located at a Major Source of HAP Emissions, Existing Compression Ignition Stationary RICE >500 HP, and Existing 4SLB Stationary RICE >500 HP Located at an Area Source of HAP Emissions**

As stated in §§63.6600, 63.6601, 63.6630, and 63.6640, you must comply with the following operating limitations for new and reconstructed 2SLB and compression ignition stationary RICE located at a major source of HAP emissions; new and reconstructed 4SLB stationary RICE ≥250 HP located at a major source of HAP emissions; existing compression ignition stationary RICE >500 HP; and existing 4SLB stationary RICE >500 HP located at an area source of HAP emissions that operate more than 24 hours per calendar year:

For each . . .	You must meet the following operating limitation . . .
1. 2SLB and 4SLB stationary RICE and CI stationary RICE complying with the requirement to reduce CO emissions and using an oxidation catalyst; or 2SLB and 4SLB stationary RICE and CI stationary RICE complying with the requirement to limit the concentration of formaldehyde in the stationary RICE exhaust and using an oxidation catalyst; or 4SLB stationary RICE and CI stationary RICE complying with the requirement to limit the concentration of CO in the stationary RICE exhaust and using an oxidation catalyst	a. maintain your catalyst so that the pressure drop across the catalyst does not change by more than 2 inches of water at 100 percent load plus or minus 10 percent from the pressure drop across the catalyst that was measured during the initial performance test; and b. maintain the temperature of your stationary RICE exhaust so that the catalyst inlet temperature is greater than or equal to 450 °F and less than or equal to 1350 °F. <sup>1</sup>
2. 2SLB and 4SLB stationary RICE and CI stationary RICE complying with the requirement to reduce CO emissions and not using an oxidation catalyst; or 2SLB and 4SLB stationary RICE and CI stationary RICE complying with the requirement to limit the concentration of formaldehyde in the stationary RICE exhaust and not using an oxidation catalyst; or 4SLB stationary RICE and CI stationary RICE complying with the requirement to limit the concentration of CO in the stationary RICE exhaust and	Comply with any operating limitations approved by the Administrator.

not using an oxidation catalyst	
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<sup>1</sup>Sources can petition the Administrator pursuant to the requirements of 40 CFR 63.8(g) for a different temperature range.

[75 FR 51593, Aug. 20, 2010]

**Table 2cto Subpart ZZZZ of Part 63—Requirements for Existing Compression Ignition Stationary RICE Located at a Major Source of HAP Emissions and Existing Spark Ignition Stationary RICE ≤500 HP Located at a Major Source of HAP Emissions**

As stated in §§63.6600, 63.6602, and 63.6640, you must comply with the following requirements for existing compression ignition stationary RICE located at a major source of HAP emissions and existing spark ignition stationary RICE ≤500 HP located at a major source of HAP emissions:

For each . . .	You must meet the following requirement, except during periods of startup . . .	During periods of startup you must . . .
1. Emergency stationary CI RICE and black start stationary CI RICE. <sup>1</sup>	a. Change oil and filter every 500 hours of operation or annually, whichever comes first; <sup>2</sup> b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first; c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary. <sup>3</sup>	Minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. <sup>3</sup>
2. Non-Emergency, non-black start stationary CI RICE <100 HP	a. Change oil and filter every 1,000 hours of operation or annually, whichever comes first; <sup>2</sup>	
	b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first;	
	c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary. <sup>3</sup>	
3. Non-Emergency, non-black start CI stationary RICE 100≤HP≤300 HP	Limit concentration of CO in the stationary RICE exhaust to 230 ppmvd or less at 15 percent O <sub>2</sub>	
4. Non-Emergency, non-black start CI stationary RICE 300<HP≤500	a. Limit concentration of CO in the stationary RICE exhaust to 49 ppmvd or less at 15 percent O <sub>2</sub> ; or	
	b. Reduce CO emissions by 70	

	percent or more.	
5. Non-Emergency, non-black start stationary CI RICE >500 HP	a. Limit concentration of CO in the stationary RICE exhaust to 23 ppmvd or less at 15 percent O <sub>2</sub> ; or	
	b. Reduce CO emissions by 70 percent or more.	
6. Emergency stationary SI RICE and black start stationary SI RICE. <sup>1</sup>	a. Change oil and filter every 500 hours of operation or annually, whichever comes first; <sup>2</sup>	
	b. Inspect spark plugs every 1,000 hours of operation or annually, whichever comes first;	
	c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary. <sup>3</sup>	
7. Non-Emergency, non-black start stationary SI RICE <100 HP that are not 2SLB stationary RICE	a. Change oil and filter every 1,440 hours of operation or annually, whichever comes first; <sup>2</sup>	
	b. Inspect spark plugs every 1,440 hours of operation or annually, whichever comes first;	
	c. Inspect all hoses and belts every 1,440 hours of operation or annually, whichever comes first, and replace as necessary. <sup>3</sup>	
8. Non-Emergency, non-black start 2SLB stationary SI RICE <100 HP	a. Change oil and filter every 4,320 hours of operation or annually, whichever comes first; <sup>2</sup>	
	b. Inspect spark plugs every 4,320 hours of operation or annually, whichever comes first;	
	c. Inspect all hoses and belts every 4,320 hours of operation or annually, whichever comes first, and replace as necessary. <sup>3</sup>	
9. Non-emergency, non-	Limit concentration of CO in the	

black start 2SLB stationary RICE 100≤HP≤500	stationary RICE exhaust to 225 ppmvd or less at 15 percent O <sub>2</sub>	
10. Non-emergency, non-black start 4SLB stationary RICE 100≤HP≤500	Limit concentration of CO in the stationary RICE exhaust to 47 ppmvd or less at 15 percent O <sub>2</sub>	
11. Non-emergency, non-black start 4SRB stationary RICE 100≤HP≤500	Limit concentration of formaldehyde in the stationary RICE exhaust to 10.3 ppmvd or less at 15 percent O <sub>2</sub>	
12. Non-emergency, non-black start landfill or digester gas-fired stationary RICE 100≤HP≤500	Limit concentration of CO in the stationary RICE exhaust to 177 ppmvd or less at 15 percent O <sub>2</sub>	

<sup>1</sup>If an emergency engine is operating during an emergency and it is not possible to shut down the engine in order to perform the work practice requirements on the schedule required in Table 2c of this subpart, or if performing the work practice on the required schedule would otherwise pose an unacceptable risk under Federal, State, or local law, the work practice can be delayed until the emergency is over or the unacceptable risk under Federal, State, or local law has abated. The work practice should be performed as soon as practicable after the emergency has ended or the unacceptable risk under Federal, State, or local law has abated. Sources must report any failure to perform the work practice on the schedule required and the Federal, State or local law under which the risk was deemed unacceptable.

<sup>2</sup>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 in Table 2c of this subpart.

<sup>3</sup>Sources can petition the Administrator pursuant to the requirements of 40 CFR 63.6(g) for alternative work practices.

[75 FR 51593, Aug. 20, 2010]

**Table 2d to Subpart ZZZZ of Part 63— Requirements for Existing Stationary RICE Located at Area Sources of HAP Emissions**

As stated in §§63.6603 and 63.6640, you must comply with the following requirements for existing stationary RICE located at area sources of HAP emissions:

For each . . .	You must meet the following requirement, except during periods of startup . . .	During periods of startup you must . . .
1. Non-Emergency, non-black start CI stationary RICE ≤300 HP	a. Change oil and filter every 1,000 hours of operation or annually, whichever comes first; <sup>1</sup>	Minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply.
	b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first;	

	c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.	
2. Non-Emergency, non-black start CI stationary RICE 300<HP≤500	a. Limit concentration of CO in the stationary RICE exhaust to 49 ppmvd at 15 percent O <sub>2</sub> ; or	
	b. Reduce CO emissions by 70 percent or more.	
3. Non-Emergency, non-black start CI stationary RICE >500 HP	a. Limit concentration of CO in the stationary RICE exhaust to 23 ppmvd at 15 percent O <sub>2</sub> ; or	
	b. Reduce CO emissions by 70 percent or more.	
4. Emergency stationary CI RICE and black start stationary CI RICE. <sup>2</sup>	a. Change oil and filter every 500 hours of operation or annually, whichever comes first; <sup>1</sup>	
	b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first; and	
	c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.	
5. Emergency stationary SI RICE; black start stationary SI RICE; non-emergency, non-black start 4SLB stationary RICE >500 HP that operate 24 hours or less per calendar year; non-emergency, non-black start 4SRB stationary RICE >500 HP that operate 24 hours or less per calendar year. <sup>2</sup>	a. Change oil and filter every 500 hours of operation or annually, whichever comes first; <sup>1</sup> b. Inspect spark plugs every 1,000 hours of operation or annually, whichever comes first; and c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.	

6. Non-emergency, non-black start 2SLB stationary RICE	a. Change oil and filter every 4,320 hours of operation or annually, whichever comes first; <sup>1</sup>	
	b. Inspect spark plugs every 4,320 hours of operation or annually, whichever comes first; and	
	c. Inspect all hoses and belts every 4,320 hours of operation or annually, whichever comes first, and replace as necessary.	
7. Non-emergency, non-black start 4SLB stationary RICE ≤500 HP	a. Change oil and filter every 1,440 hours of operation or annually, whichever comes first; <sup>1</sup>	
	b. Inspect spark plugs every 1,440 hours of operation or annually, whichever comes first; and	
	c. Inspect all hoses and belts every 1,440 hours of operation or annually, whichever comes first, and replace as necessary.	
8. Non-emergency, non-black start 4SLB stationary RICE >500 HP	a. Limit concentration of CO in the stationary RICE exhaust to 47 ppmvd at 15 percent O <sub>2</sub> ; or	
	b. Reduce CO emissions by 93 percent or more.	
9. Non-emergency, non-black start 4SRB stationary RICE ≤500 HP	a. Change oil and filter every 1,440 hours of operation or annually, whichever comes first; <sup>1</sup>	
	b. Inspect spark plugs every 1,440 hours of operation or annually, whichever comes first; and	
	c. Inspect all hoses and	

	belts every 1,440 hours of operation or annually, whichever comes first, and replace as necessary.	
10. Non-emergency, non-black start 4SRB stationary RICE >500 HP	a. Limit concentration of formaldehyde in the stationary RICE exhaust to 2.7 ppmvd at 15 percent O <sub>2</sub> ; or	
	b. Reduce formaldehyde emissions by 76 percent or more.	
11. Non-emergency, non-black start landfill or digester gas-fired stationary RICE	a. Change oil and filter every 1,440 hours of operation or annually, whichever comes first; <sup>1</sup>	
	b. Inspect spark plugs every 1,440 hours of operation or annually, whichever comes first; and	
	c. Inspect all hoses and belts every 1,440 hours of operation or annually, whichever comes first, and replace as necessary.	

<sup>1</sup>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 in Table 2d of this subpart.

<sup>2</sup>If an emergency engine is operating during an emergency and it is not possible to shut down the engine in order to perform the management practice requirements on the schedule required in Table 2d of this subpart, or if performing the management practice on the required schedule would otherwise pose an unacceptable risk under Federal, State, or local law, the management practice can be delayed until the emergency is over or the unacceptable risk under Federal, State, or local law has abated. The management practice should be performed as soon as practicable after the emergency has ended or the unacceptable risk under Federal, State, or local law has abated. Sources must report any failure to perform the management practice on the schedule required and the Federal, State or local law under which the risk was deemed unacceptable.

[75 FR 51595, Aug. 20, 2010]

### **Table 3 to Subpart ZZZZ of Part 63—Subsequent Performance Tests**

As stated in §§63.6615 and 63.6620, you must comply with the following subsequent performance test requirements:

<b>For each . . .</b>	<b>Complying with the requirement to . . .</b>	<b>You must . . .</b>
1. New or reconstructed 2SLB stationary RICE with a brake horsepower >500 located at major sources; new or reconstructed 4SLB stationary RICE with a brake horsepower ≥250 located at major sources; and new or reconstructed CI stationary RICE with a	Reduce CO emissions and not using a CEMS	Conduct subsequent performance tests semiannually. <sup>1</sup>

brake horsepower >500 located at major sources		
2. 4SRB stationary RICE with a brake horsepower $\geq 5,000$ located at major sources	Reduce formaldehyde emissions	Conduct subsequent performance tests semiannually. <sup>1</sup>
3. Stationary RICE with a brake horsepower >500 located at major sources and new or reconstructed 4SLB stationary RICE with a brake horsepower $250 \leq HP \leq 500$ located at major sources	Limit the concentration of formaldehyde in the stationary RICE exhaust	Conduct subsequent performance tests semiannually. <sup>1</sup>
4. Existing non-emergency, non-black start CI stationary RICE with a brake horsepower >500 that are not limited use stationary RICE; existing non-emergency, non-black start 4SLB and 4SRB stationary RICE located at an area source of HAP emissions with a brake horsepower >500 that are operated more than 24 hours per calendar year that are not limited use stationary RICE	Limit or reduce CO or formaldehyde emissions	Conduct subsequent performance tests every 8,760 hrs. or 3 years, whichever comes first.
5. Existing non-emergency, non-black start CI stationary RICE with a brake horsepower >500 that are limited use stationary RICE; existing non-emergency, non-black start 4SLB and 4SRB stationary RICE located at an area source of HAP emissions with a brake horsepower >500 that are operated more than 24 hours per calendar year and are limited use stationary RICE	Limit or reduce CO or formaldehyde emissions	Conduct subsequent performance tests every 8,760 hrs. or 5 years, whichever comes first.

<sup>1</sup>After you have demonstrated compliance for two consecutive tests, you may reduce the frequency of subsequent performance tests to annually. If the results of any subsequent annual performance test indicate the stationary RICE is not in compliance with the CO or formaldehyde emission limitation, or you deviate from any of your operating limitations, you must resume semiannual performance tests.

[75 FR 51596, Aug. 20, 2010]

#### **Table 4 to Subpart ZZZZ of Part 63—Requirements for Performance Tests**

As stated in §§63.6610, 63.6611, 63.6612, 63.6620, and 63.6640, you must comply with the following requirements for performance tests for stationary RICE:

For each . . .	Complying with the requirement to . . .	You must . . .	Using . . .	According to the following requirements . . .
1. 2SLB, 4SLB, and CI stationary RICE	a. Reduce CO emissions	i. Measure the O <sub>2</sub> at the inlet and outlet of the control device; and	(1) Portable CO and O <sub>2</sub> analyzer	(a) Using ASTM D6522–00 (2005) <sup>a</sup> (incorporated by reference, see §63.14). Measurements to determine O <sub>2</sub> must be made at the same time as the measurements for CO concentration.
		ii. Measure the CO at the inlet and the outlet of the control	(1) Portable CO and O <sub>2</sub> analyzer	(a) Using ASTM D6522–00 (2005) <sup>ab</sup> (incorporated by reference, see §63.14) or

		device		Method 10 of 40 CFR appendix A. The CO concentration must be at 15 percent O <sub>2</sub> , dry basis.
2. 4SRB stationary RICE	a. Reduce formaldehyde emissions	i. Select the sampling port location and the number of traverse points; and	(1) Method 1 or 1A of 40 CFR part 60, appendix A §63.7(d)(1)(i)	(a) Sampling sites must be located at the inlet and outlet of the control device.
		ii. Measure O <sub>2</sub> at the inlet and outlet of the control device; and	(1) Method 3 or 3A or 3B of 40 CFR part 60, appendix A, or ASTM Method D6522-00m (2005)	(a) Measurements to determine O <sub>2</sub> concentration must be made at the same time as the measurements for formaldehyde concentration.
		iii. Measure moisture content at the inlet and outlet of the control device; and	(1) Method 4 of 40 CFR part 60, appendix A, or Test Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348-03	(a) Measurements to determine moisture content must be made at the same time and location as the measurements for formaldehyde concentration.
		iv. Measure formaldehyde at the inlet and the outlet of the control device	(1) Method 320 or 323 of 40 CFR part 63, appendix A; or ASTM D6348-03, provided in ASTM D6348-03 Annex A5 (Analyte Spiking Technique), the percent R must be greater than or equal to 70 and less than or equal to 130	(a) Formaldehyde concentration must be at 15 percent O <sub>2</sub> , dry basis. Results of this test consist of the average of the three 1-hour or longer runs.
3. Stationary RICE	a. Limit the concentration of formaldehyde or CO in the stationary RICE exhaust	i. Select the sampling port location and the number of traverse points; and	(1) Method 1 or 1A of 40 CFR part 60, appendix A §63.7(d)(1)(i)	(a) If using a control device, the sampling site must be located at the outlet of the control device.
		ii. Determine the O <sub>2</sub> concentration of the stationary RICE exhaust at the sampling port location; and	(1) Method 3 or 3A or 3B of 40 CFR part 60, appendix A, or ASTM Method D6522-00 (2005)	(a) Measurements to determine O <sub>2</sub> concentration must be made at the same time and location as the measurements for formaldehyde concentration.
		iii. Measure moisture content of the stationary RICE exhaust at the sampling port location; and	(1) Method 4 of 40 CFR part 60, appendix A, or Test Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348-03	(a) Measurements to determine moisture content must be made at the same time and location as the measurements for formaldehyde concentration.

		iv. Measure formaldehyde at the exhaust of the stationary RICE; or	(1) Method 320 or 323 of 40 CFR part 63, appendix A; or ASTM D6348-03, <sup>c</sup> provided in ASTM D6348-03 Annex A5 (Analyte Spiking Technique), the percent R must be greater than or equal to 70 and less than or equal to 130	(a) Formaldehyde concentration must be at 15 percent O <sub>2</sub> , dry basis. Results of this test consist of the average of the three 1-hour or longer runs.
		v. Measure CO at the exhaust of the stationary RICE	(1) Method 10 of 40 CFR part 60, appendix A, ASTM Method D6522-00 (2005), <sup>a</sup> Method 320 of 40 CFR part 63, appendix A, or ASTM D6348-03	(a) CO Concentration must be at 15 percent O <sub>2</sub> , dry basis. Results of this test consist of the average of the three 1-hour longer runs.

<sup>a</sup>You may also use Methods 3A and 10 as options to ASTM-D6522-00 (2005). You may obtain a copy of ASTM-D6522-00 (2005) from at least one of the following addresses: American Society for Testing and Materials, 100 Barr Harbor Drive, West Conshohocken, PA 19428-2959, or University Microfilms International, 300 North Zeeb Road, Ann Arbor, MI 48106. ASTM-D6522-00 (2005) may be used to test both CI and SI stationary RICE.

<sup>b</sup>You may also use Method 320 of 40 CFR part 63, appendix A, or ASTM D6348-03.

<sup>c</sup>You may obtain a copy of ASTM-D6348-03 from at least one of the following addresses: American Society for Testing and Materials, 100 Barr Harbor Drive, West Conshohocken, PA 19428-2959, or University Microfilms International, 300 North Zeeb Road, Ann Arbor, MI 48106.

[75 FR 51597, Aug. 20, 2010]

**Table 5 to Subpart ZZZZ of Part 63—Initial Compliance With Emission Limitations and Operating Limitations**

As stated in §§63.6612, 63.6625 and 63.6630, you must initially comply with the emission and operating limitations as required by the following:

For each . . .	Complying with the requirement to . . .	You have demonstrated initial compliance if . . .
1. New or reconstructed non-emergency 2SLB stationary RICE >500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE ≥250 HP located at a major source of HAP, non-emergency stationary CI RICE >500 HP located at a major source of HAP, existing non-emergency stationary CI RICE >500 HP located at an area source of HAP, and existing non-emergency 4SLB stationary RICE >500 HP located at an area source of HAP that are operated more than 24 hours per calendar year	a. Reduce CO emissions and using oxidation catalyst, and using a CPMS	i. The average reduction of emissions of CO determined from the initial performance test achieves the required CO percent reduction; and ii. You have installed a CPMS to continuously monitor catalyst inlet temperature according to the requirements in §63.6625(b); and iii. You have recorded the catalyst pressure drop and catalyst inlet temperature during the initial performance test.
2. New or reconstructed non-emergency 2SLB stationary RICE >500 HP located at a major source of HAP, new or reconstructed non-	a. Reduce CO emissions and not using oxidation	i. The average reduction of emissions of CO determined from the initial performance test achieves the required CO

<p>emergency 4SLB stationary RICE <math>\geq</math>250 HP located at a major source of HAP, non-emergency stationary CI RICE &gt;500 HP located at a major source of HAP, existing non-emergency stationary CI RICE &gt;500 HP located at an area source of HAP, and existing non-emergency 4SLB stationary RICE &gt;500 HP located at an area source of HAP that are operated more than 24 hours per calendar year</p>	<p>catalyst</p>	<p>percent reduction; and  ii. You have installed a CPMS to continuously monitor operating parameters approved by the Administrator (if any) according to the requirements in §63.6625(b); and  iii. You have recorded the approved operating parameters (if any) during the initial performance test.</p>
<p>3. New or reconstructed non-emergency 2SLB stationary RICE &gt;500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE <math>\geq</math>250 HP located at a major source of HAP, non-emergency stationary CI RICE &gt;500 HP located at a major source of HAP, existing non-emergency stationary CI RICE &gt;500 HP located at an area source of HAP, and existing non-emergency 4SLB stationary RICE &gt;500 HP located at an area source of HAP that are operated more than 24 hours per calendar year</p>	<p>a. Reduce CO emissions, and using a CEMS</p>	<p>i. You have installed a CEMS to continuously monitor CO and either O<sub>2</sub> or CO<sub>2</sub> at both the inlet and outlet of the oxidation catalyst according to the requirements in §63.6625(a); and  ii. You have conducted a performance evaluation of your CEMS using PS 3 and 4A of 40 CFR part 60, appendix B; and  iii. The average reduction of CO calculated using §63.6620 equals or exceeds the required percent reduction. The initial test comprises the first 4-hour period after successful validation of the CEMS. Compliance is based on the average percent reduction achieved during the 4-hour period.</p>
<p>4. Non-emergency 4SRB stationary RICE &gt;500 HP located at a major source of HAP, and existing non-emergency 4SRB stationary RICE &gt;500 HP located at an area source of HAP that are operated more than 24 hours per calendar year</p>	<p>a. Reduce formaldehyde emissions and using NSCR</p>	<p>i. The average reduction of emissions of formaldehyde determined from the initial performance test is equal to or greater than the required formaldehyde percent reduction; and  ii. You have installed a CPMS to continuously monitor catalyst inlet temperature according to the requirements in §63.6625(b); and  iii. You have recorded the catalyst pressure drop and catalyst inlet temperature during the initial performance test.</p>
<p>5. Non-emergency 4SRB stationary RICE &gt;500 HP located at a major source of HAP, and existing non-emergency 4SRB stationary RICE &gt;500 HP located at an area source of HAP that are operated more than 24 hours per calendar year</p>	<p>a. Reduce formaldehyde emissions and not using NSCR</p>	<p>i. The average reduction of emissions of formaldehyde determined from the initial performance test is equal to or greater than the required formaldehyde percent reduction; and  ii. You have installed a CPMS to continuously monitor operating parameters approved by the Administrator (if any) according to the requirements in §63.6625(b); and  iii. You have recorded the approved</p>

		operating parameters (if any) during the initial performance test.
6. New or reconstructed non-emergency stationary RICE >500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE $250 \leq \text{HP} \leq 500$ located at a major source of HAP, and existing non-emergency 4SRB stationary RICE >500 HP	a. Limit the concentration of formaldehyde in the stationary RICE exhaust and using oxidation catalyst or NSCR	i. The average formaldehyde concentration, corrected to 15 percent O <sub>2</sub> , dry basis, from the three test runs is less than or equal to the formaldehyde emission limitation; and ii. You have installed a CPMS to continuously monitor catalyst inlet temperature according to the requirements in §63.6625(b); and iii. You have recorded the catalyst pressure drop and catalyst inlet temperature during the initial performance test.
7. New or reconstructed non-emergency stationary RICE >500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE $250 \leq \text{HP} \leq 500$ located at a major source of HAP, and existing non-emergency 4SRB stationary RICE >500 HP	a. Limit the concentration of formaldehyde in the stationary RICE exhaust and not using oxidation catalyst or NSCR	i. The average formaldehyde concentration, corrected to 15 percent O <sub>2</sub> , dry basis, from the three test runs is less than or equal to the formaldehyde emission limitation; and ii. You have installed a CPMS to continuously monitor operating parameters approved by the Administrator (if any) according to the requirements in §63.6625(b); and iii. You have recorded the approved operating parameters (if any) during the initial performance test.
8. Existing non-emergency stationary RICE $100 \leq \text{HP} \leq 500$ located at a major source of HAP, and existing non-emergency stationary CI RICE $300 < \text{HP} \leq 500$ located at an area source of HAP	a. Reduce CO or formaldehyde emissions	i. The average reduction of emissions of CO or formaldehyde, as applicable determined from the initial performance test is equal to or greater than the required CO or formaldehyde, as applicable, percent reduction.
9. Existing non-emergency stationary RICE $100 \leq \text{HP} \leq 500$ located at a major source of HAP, and existing non-emergency stationary CI RICE $300 < \text{HP} \leq 500$ located at an area source of HAP	a. Limit the concentration of formaldehyde or CO in the stationary RICE exhaust	i. The average formaldehyde or CO concentration, as applicable, corrected to 15 percent O <sub>2</sub> , dry basis, from the three test runs is less than or equal to the formaldehyde or CO emission limitation, as applicable.

[75 FR 51598, Aug. 20, 2010]

**Table 6 to Subpart ZZZZ of Part 63—Continuous Compliance With Emission Limitations, Operating Limitations, Work Practices, and Management Practices**

As stated in §63.6640, you must continuously comply with the emissions and operating limitations and work or management practices as required by the following:

For each . . .	Complying with the requirement to . . .	You must demonstrate continuous compliance by . . .
<p>1. New or reconstructed non-emergency 2SLB stationary RICE &gt;500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE <math>\geq</math>250 HP located at a major source of HAP, and new or reconstructed non-emergency CI stationary RICE &gt;500 HP located at a major source of HAP</p>	<p>a. Reduce CO emissions and using an oxidation catalyst, and using a CPMS</p>	<p>i. Conducting semiannual performance tests for CO to demonstrate that the required CO percent reduction is achieved;<sup>a</sup>and  ii. Collecting the catalyst inlet temperature data according to §63.6625(b); and  iii. Reducing these data to 4-hour rolling averages; and  iv. Maintaining the 4-hour rolling averages within the operating limitations for the catalyst inlet temperature; and</p>
		<p>v. Measuring the pressure drop across the catalyst once per month and demonstrating that the pressure drop across the catalyst is within the operating limitation established during the performance test.</p>
<p>2. New or reconstructed non-emergency 2SLB stationary RICE &gt;500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE <math>\geq</math>250 HP located at a major source of HAP, and new or reconstructed non-emergency CI stationary RICE &gt;500 HP located at a major source of HAP</p>	<p>a. Reduce CO emissions and not using an oxidation catalyst, and using a CPMS</p>	<p>i. Conducting semiannual performance tests for CO to demonstrate that the required CO percent reduction is achieved;<sup>a</sup>and  ii. Collecting the approved operating parameter (if any) data according to §63.6625(b); and  iii. Reducing these data to 4-hour rolling averages; and  iv. Maintaining the 4-hour rolling averages within the operating limitations for the operating parameters established during the performance test.</p>
<p>3. New or reconstructed non-emergency 2SLB stationary RICE &gt;500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE <math>\geq</math>250 HP located at a major source of HAP, new or reconstructed non-emergency stationary CI RICE &gt;500 HP located at a major source of HAP, existing non-emergency stationary CI RICE &gt;500 HP, existing non-emergency 4SLB stationary RICE &gt;500 HP located at an area source of HAP that are operated more than 24 hours per calendar year</p>	<p>. Reduce CO emissions and using a CEMS</p>	<p>i. Collecting the monitoring data according to §63.6625(a), reducing the measurements to 1-hour averages, calculating the percent reduction of CO emissions according to §63.6620; and  ii. Demonstrating that the catalyst achieves the required percent reduction of CO emissions over the 4-hour averaging period; and  iii. Conducting an annual RATA of your CEMS using PS 3 and 4A 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,</p>

		procedure 1.
4. Non-emergency 4SRB stationary RICE >500 HP located at a major source of HAP	a. Reduce formaldehyde emissions and using NSCR	i. Collecting the catalyst inlet temperature data according to §63.6625(b); and ii. Reducing these data to 4-hour rolling averages; and
		iii. Maintaining the 4-hour rolling averages within the operating limitations for the catalyst inlet temperature; and
		iv. Measuring the pressure drop across the catalyst once per month and demonstrating that the pressure drop across the catalyst is within the operating limitation established during the performance test.
5. Non-emergency 4SRB stationary RICE >500 HP located at a major source of HAP	a. Reduce formaldehyde emissions and not using NSCR	i. Collecting the approved operating parameter (if any) data according to §63.6625(b); and ii. Reducing these data to 4-hour rolling averages; and
		iii. Maintaining the 4-hour rolling averages within the operating limitations for the operating parameters established during the performance test.
6. Non-emergency 4SRB stationary RICE with a brake HP $\geq 5,000$ located at a major source of HAP	a. Reduce formaldehyde emissions	Conducting semiannual performance tests for formaldehyde to demonstrate that the required formaldehyde percent reduction is achieved. <sup>a</sup>
7. New or reconstructed non-emergency stationary RICE >500 HP located at a major source of HAP and new or reconstructed non-emergency 4SLB stationary RICE $250 \leq \text{HP} \leq 500$ located at a major source of HAP	a. Limit the concentration of formaldehyde in the stationary RICE exhaust and using oxidation catalyst or NSCR	i. Conducting semiannual performance tests for formaldehyde to demonstrate that your emissions remain at or below the formaldehyde concentration limit; <sup>a</sup> and ii. Collecting the catalyst inlet temperature data according to §63.6625(b); and
		iii. Reducing these data to 4-hour rolling averages; and
		iv. Maintaining the 4-hour rolling averages within the operating limitations for the catalyst inlet temperature; and
		v. Measuring the pressure drop across the catalyst once per month and

		demonstrating that the pressure drop across the catalyst is within the operating limitation established during the performance test.
8. New or reconstructed non-emergency stationary RICE >500 HP located at a major source of HAP and new or reconstructed non-emergency 4SLB stationary RICE $250 \leq \text{HP} \leq 500$ located at a major source of HAP	a. Limit the concentration of formaldehyde in the stationary RICE exhaust and not using oxidation catalyst or NSCR	i. Conducting semiannual performance tests for formaldehyde to demonstrate that your emissions remain at or below the formaldehyde concentration limit; <sup>a</sup> and ii. Collecting the approved operating parameter (if any) data according to §63.6625(b); and
		iii. Reducing these data to 4-hour rolling averages; and
		iv. Maintaining the 4-hour rolling averages within the operating limitations for the operating parameters established during the performance test.
9. Existing emergency and black start stationary RICE $\leq 500$ HP located at a major source of HAP, existing non-emergency stationary RICE <100 HP located at a major source of HAP, existing emergency and black start stationary RICE located at an area source of HAP, existing non-emergency stationary CI RICE $\leq 300$ HP located at an area source of HAP, existing non-emergency 2SLB stationary RICE located at an area source of HAP, existing non-emergency landfill or digester gas stationary SI RICE located at an area source of HAP, existing non-emergency 4SLB and 4SRB stationary RICE $\leq 500$ HP located at an area source of HAP, existing non-emergency 4SLB and 4SRB stationary RICE >500 HP located at an area source of HAP that operate 24 hours or less per calendar year	a. Work or Management practices	i. Operating and maintaining the stationary RICE according to the manufacturer's emission-related operation and maintenance instructions; or ii. Develop and follow 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.
10. Existing stationary CI RICE >500 HP that are not limited use stationary RICE, and existing 4SLB and 4SRB stationary RICE >500 HP located at an area source of HAP that operate more than 24 hours per calendar year and are not limited use stationary RICE	a. Reduce CO or formaldehyde emissions, or limit the concentration of formaldehyde or CO in the stationary RICE exhaust, and using oxidation catalyst or NSCR	i. Conducting performance tests every 8,760 hours or 3 years, whichever comes first, for CO or formaldehyde, as appropriate, to demonstrate that the required CO or formaldehyde, as appropriate, percent reduction is achieved or that your emissions remain at or below the CO or formaldehyde concentration limit; and

		ii. Collecting the catalyst inlet temperature data according to §63.6625(b); and
		iii. Reducing these data to 4-hour rolling averages; and
		iv. Maintaining the 4-hour rolling averages within the operating limitations for the catalyst inlet temperature; and
		v. Measuring the pressure drop across the catalyst once per month and demonstrating that the pressure drop across the catalyst is within the operating limitation established during the performance test.
11. Existing stationary CI RICE >500 HP that are not limited use stationary RICE, and existing 4SLB and 4SRB stationary RICE >500 HP located at an area source of HAP that operate more than 24 hours per calendar year and are not limited use stationary RICE	a. Reduce CO or formaldehyde emissions, or limit the concentration of formaldehyde or CO in the stationary RICE exhaust, and not using oxidation catalyst or NSCR	i. Conducting performance tests every 8,760 hours or 3 years, whichever comes first, for CO or formaldehyde, as appropriate, to demonstrate that the required CO or formaldehyde, as appropriate, percent reduction is achieved or that your emissions remain at or below the CO or formaldehyde concentration limit; and
		ii. Collecting the approved operating parameter (if any) data according to §63.6625(b); and
		iii. Reducing these data to 4-hour rolling averages; and
		iv. Maintaining the 4-hour rolling averages within the operating limitations for the operating parameters established during the performance test.
12. Existing limited use CI stationary RICE >500 HP and existing limited use 4SLB and 4SRB stationary RICE >500 HP located at an area source of HAP that operate more than 24 hours per calendar year	a. Reduce CO or formaldehyde emissions or limit the concentration of formaldehyde or CO in the stationary RICE exhaust, and using an oxidation catalyst or NSCR	i. Conducting performance tests every 8,760 hours or 5 years, whichever comes first, for CO or formaldehyde, as appropriate, to demonstrate that the required CO or formaldehyde, as appropriate, percent reduction is achieved or that your emissions remain at or below the CO or formaldehyde concentration limit; and
		ii. Collecting the catalyst inlet temperature data according to

		§63.6625(b); and
		iii. Reducing these data to 4-hour rolling averages; and
		iv. Maintaining the 4-hour rolling averages within the operating limitations for the catalyst inlet temperature; and
		v. Measuring the pressure drop across the catalyst once per month and demonstrating that the pressure drop across the catalyst is within the operating limitation established during the performance test.
13. Existing limited use CI stationary RICE >500 HP and existing limited use 4SLB and 4SRB stationary RICE >500 HP located at an area source of HAP that operate more than 24 hours per calendar year	a. Reduce CO or formaldehyde emissions or limit the concentration of formaldehyde or CO in the stationary RICE exhaust, and using an oxidation catalyst or NSCR	i. Conducting performance tests every 8,760 hours or 5 years, whichever comes first, for CO or formaldehyde, as appropriate, to demonstrate that the required CO or formaldehyde, as appropriate, percent reduction is achieved or that your emissions remain at or below the CO or formaldehyde concentration limit; and
		ii. Collecting the approved operating parameter (if any) data according to §63.6625(b); and
		iii. Reducing these data to 4-hour rolling averages; and
		iv. Maintaining the 4-hour rolling averages within the operating limitations for the operating parameters established during the performance test.

<sup>a</sup>After you have demonstrated compliance for two consecutive tests, you may reduce the frequency of subsequent performance tests to annually. If the results of any subsequent annual performance test indicate the stationary RICE is not in compliance with the CO or formaldehyde emission limitation, or you deviate from any of your operating limitations, you must resume semiannual performance tests.

[75 FR 51600, Aug. 20, 2010]

### **Table 7 to Subpart ZZZZ of Part 63—Requirements for Reports**

**These reports are not required for the engine.**

As stated in §63.6650, you must comply with the following requirements for reports:

<b>For each ...</b>	<b>You must submit a ...</b>	<b>The report must contain ...</b>	<b>You must submit the report ...</b>
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<p>1. Existing non-emergency, non-black start stationary RICE <math>100 \leq \text{HP} \leq 500</math> located at a major source of HAP; existing non-emergency, non-black start stationary CI RICE <math>&gt;500</math> HP located at a major source of HAP; existing non-emergency 4SRB stationary RICE <math>&gt;500</math> HP located at a major source of HAP; existing non-emergency, non-black start stationary CI RICE <math>&gt;300</math> HP located at an area source of HAP; existing non-emergency, non-black start 4SLB and 4SRB stationary RICE <math>&gt;500</math> HP located at an area source of HAP and operated more than 24 hours per calendar year; new or reconstructed non-emergency stationary RICE <math>&gt;500</math> HP located at a major source of HAP; and new or reconstructed non-emergency 4SLB stationary RICE <math>250 \leq \text{HP} \leq 500</math> located at a major source of HAP</p>	<p>Compliance report</p>	<p>a. If there are no deviations from any emission limitations or operating limitations that apply to you, a statement that there were no deviations from the emission limitations or operating limitations during the reporting period. If there were no periods during which the CMS, including CEMS and CPMS, was out-of-control, as specified in §63.8(c)(7), a statement that there were not periods during which the CMS was out-of-control during the reporting period; or  b. If you had a deviation from any emission limitation or operating limitation during the reporting period, the information in §63.6650(d). If there were periods during which the CMS, including CEMS and CPMS, was out-of-control, as specified in §63.8(c)(7), the information in §63.6650(e); or  c. If you had a malfunction during the reporting period, the information in §63.6650(c)(4)</p>	<p>i. Semiannually according to the requirements in §63.6650(b)(1)–(5) for engines that are not limited use stationary RICE subject to numerical emission limitations; and  ii. Annually according to the requirements in §63.6650(b)(6)–(9) for engines that are limited use stationary RICE subject to numerical emission limitations.  i. Semiannually according to the requirements in §63.6650(b).  i. Semiannually according to the requirements in §63.6650(b).</p>
<p>2. New or reconstructed non-emergency stationary RICE that combusts landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis</p>	<p>Report</p>	<p>a. The fuel flow rate of each fuel and the heating values that were used in your calculations, and you must demonstrate that the percentage of heat input provided by landfill gas or digester gas, is equivalent to 10 percent or more of the gross heat input on an annual basis; and</p>	<p>i. Annually, according to the requirements in §63.6650.</p>
		<p>b. The operating limits provided in your federally enforceable permit, and any deviations from these limits; and</p>	<p>i. See item 2.a.i.</p>
		<p>c. Any problems or errors suspected with the meters.</p>	<p>i. See item 2.a.i.</p>

[75 FR 51603, Aug. 20, 2010]

**Table 8 to Subpart ZZZZ of Part 63—Applicability of General Provisions to Subpart ZZZZ.**

As stated in §63.6665, you must comply with the following applicable general provisions.

General provisions citation	Subject of citation	Applies to subpart	Explanation
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§63.1	General applicability of the General Provisions	Yes.	
§63.2	Definitions	Yes	Additional terms defined in §63.6675.
§63.3	Units and abbreviations	Yes.	
§63.4	Prohibited activities and circumvention	Yes.	
§63.5	Construction and reconstruction	Yes.	
§63.6(a)	Applicability	Yes.	
§63.6(b)(1)–(4)	Compliance dates for new and reconstructed sources	Yes.	
§63.6(b)(5)	Notification	Yes.	
§63.6(b)(6)	[Reserved]		
§63.6(b)(7)	Compliance dates for new and reconstructed area sources that become major sources	Yes.	
§63.6(c)(1)–(2)	Compliance dates for existing sources	Yes.	
§63.6(c)(3)–(4)	[Reserved]		
§63.6(c)(5)	Compliance dates for existing area sources that become major sources	Yes.	
§63.6(d)	[Reserved]		
§63.6(e)	Operation and maintenance	No.	
§63.6(f)(1)	Applicability of standards	No.	
§63.6(f)(2)	Methods for determining compliance	Yes.	
§63.6(f)(3)	Finding of compliance	Yes.	
§63.6(g)(1)–(3)	Use of alternate standard	Yes.	
§63.6(h)	Opacity and visible emission standards	No	Subpart ZZZZ does not contain opacity or visible emission standards.
§63.6(i)	Compliance extension procedures	Yes.	

	and criteria		
§63.6(j)	Presidential compliance exemption	Yes.	
§63.7(a)(1)–(2)	Performance test dates	Yes	Subpart ZZZZ contains performance test dates at §§63.6610, 63.6611, and 63.6612.
§63.7(a)(3)	CAA section 114 authority	Yes.	
§63.7(b)(1)	Notification of performance test	Yes	Except that §63.7(b)(1) only applies as specified in §63.6645.
§63.7(b)(2)	Notification of rescheduling	Yes	Except that §63.7(b)(2) only applies as specified in §63.6645.
§63.7(c)	Quality assurance/test plan	Yes	Except that §63.7(c) only applies as specified in §63.6645.
§63.7(d)	Testing facilities	Yes.	
§63.7(e)(1)	Conditions for conducting performance tests	No.	Subpart ZZZZ specifies conditions for conducting performance tests at §63.6620.
§63.7(e)(2)	Conduct of performance tests and reduction of data	Yes	Subpart ZZZZ specifies test methods at §63.6620.
§63.7(e)(3)	Test run duration	Yes.	
§63.7(e)(4)	Administrator may require other testing under section 114 of the CAA	Yes.	
§63.7(f)	Alternative test method provisions	Yes.	
§63.7(g)	Performance test data analysis, recordkeeping, and reporting	Yes.	
§63.7(h)	Waiver of tests	Yes.	
§63.8(a)(1)	Applicability of monitoring requirements	Yes	Subpart ZZZZ contains specific requirements for monitoring at §63.6625.
§63.8(a)(2)	Performance specifications	Yes.	
§63.8(a)(3)	[Reserved]		
§63.8(a)(4)	Monitoring for control devices	No.	

§63.8(b)(1)	Monitoring	Yes.	
§63.8(b)(2)–(3)	Multiple effluents and multiple monitoring systems	Yes.	
§63.8(c)(1)	Monitoring system operation and maintenance	Yes.	
§63.8(c)(1)(i)	Routine and predictable SSM	Yes.	
§63.8(c)(1)(ii)	SSM not in Startup Shutdown Malfunction Plan	Yes.	
§63.8(c)(1)(iii)	Compliance with operation and maintenance requirements	Yes.	
§63.8(c)(2)–(3)	Monitoring system installation	Yes.	
§63.8(c)(4)	Continuous monitoring system (CMS) requirements	Yes	Except that subpart ZZZZ does not require Continuous Opacity Monitoring System (COMS).
§63.8(c)(5)	COMS minimum procedures	No	Subpart ZZZZ does not require COMS.
§63.8(c)(6)–(8)	CMS requirements	Yes	Except that subpart ZZZZ does not require COMS.
§63.8(d)	CMS quality control	Yes.	
§63.8(e)	CMS performance evaluation	Yes	Except for §63.8(e)(5)(ii), which applies to COMS.
		Except that §63.8(e) only applies as specified in §63.6645.	
§63.8(f)(1)–(5)	Alternative monitoring method	Yes	Except that §63.8(f)(4) only applies as specified in §63.6645.
§63.8(f)(6)	Alternative to relative accuracy test	Yes	Except that §63.8(f)(6) only applies as specified in §63.6645.
§63.8(g)	Data reduction	Yes	Except that provisions for COMS are not applicable. Averaging periods for demonstrating compliance are specified at §§63.6635 and 63.6640.
§63.9(a)	Applicability and State delegation of notification requirements	Yes.	

§63.9(b)(1)–(5)	Initial notifications	Yes	Except that §63.9(b)(3) is reserved.
		Except that §63.9(b) only applies as specified in §63.6645.	
§63.9(c)	Request for compliance extension	Yes	Except that §63.9(c) only applies as specified in §63.6645.
§63.9(d)	Notification of special compliance requirements for new sources	Yes	Except that §63.9(d) only applies as specified in §63.6645.
§63.9(e)	Notification of performance test	Yes	Except that §63.9(e) only applies as specified in §63.6645.
§63.9(f)	Notification of visible emission (VE)/opacity test	No	Subpart ZZZZ does not contain opacity or VE standards.
§63.9(g)(1)	Notification of performance evaluation	Yes	Except that §63.9(g) only applies as specified in §63.6645.
§63.9(g)(2)	Notification of use of COMS data	No	Subpart ZZZZ does not contain opacity or VE standards.
§63.9(g)(3)	Notification that criterion for alternative to RATA is exceeded	Yes	If alternative is in use.
		Except that §63.9(g) only applies as specified in §63.6645.	
§63.9(h)(1)–(6)	Notification of compliance status	Yes	Except that notifications for sources using a CEMS are due 30 days after completion of performance evaluations. §63.9(h)(4) is reserved.
			Except that §63.9(h) only applies as specified in §63.6645.
§63.9(i)	Adjustment of submittal deadlines	Yes.	
§63.9(j)	Change in previous information	Yes.	
§63.10(a)	Administrative provisions for recordkeeping/reporting	Yes.	
§63.10(b)(1)	Record retention	Yes.	
§63.10(b)(2)(i)–(v)	Records related to SSM	No.	

§63.10(b)(2)(vi)–(xi)	Records	Yes.	
§63.10(b)(2)(xii)	Record when under waiver	Yes.	
§63.10(b)(2)(xiii)	Records when using alternative to RATA	Yes	For CO standard if using RATA alternative.
§63.10(b)(2)(xiv)	Records of supporting documentation	Yes.	
§63.10(b)(3)	Records of applicability determination	Yes.	
§63.10(c)	Additional records for sources using CEMS	Yes	Except that §63.10(c)(2)–(4) and (9) are reserved.
§63.10(d)(1)	General reporting requirements	Yes.	
§63.10(d)(2)	Report of performance test results	Yes.	
§63.10(d)(3)	Reporting opacity or VE observations	No	Subpart ZZZZ does not contain opacity or VE standards.
§63.10(d)(4)	Progress reports	Yes.	
§63.10(d)(5)	Startup, shutdown, and malfunction reports	No.	
§63.10(e)(1) and (2)(i)	Additional CMS Reports	Yes.	
§63.10(e)(2)(ii)	COMS-related report	No	Subpart ZZZZ does not require COMS.
§63.10(e)(3)	Excess emission and parameter exceedances reports	Yes.	Except that §63.10(e)(3)(i) (C) is reserved.
§63.10(e)(4)	Reporting COMS data	No	Subpart ZZZZ does not require COMS.
§63.10(f)	Waiver for recordkeeping/reporting	Yes.	
§63.11	Flares	No.	
§63.12	State authority and delegations	Yes.	
§63.13	Addresses	Yes.	
§63.14	Incorporation by reference	Yes.	
§63.15	Availability of information	Yes.	

