

Inspector Checklist for The RICE Maximum Achievable Control Technologies (MACT)

**National Emission Standards for Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating
Internal Combustion Engines
40 CFR Parts 63.6580 – 63.6675 or Subpart ZZZZ
See Also General Provisions in 40 CFR Part 63**

Summary: This subpart establishes national emission and operating limitations for hazardous air pollutants (HAP) emitted from stationary reciprocating internal combustion engines (RICE) located at major sources of HAP emissions. Requirements to demonstrate initial and continuous compliance with these limitations have also been established.

The stationary RICE source category is divided into 5 subcategories: (1) stationary RICE with a site-rating of 500 brake HP or less, (2) emergency stationary RICE, (3) limited use stationary RICE, (4) stationary RICE that combust landfill gas or digester gas equivalent to 10% or more of the gross heat input on an annual basis, and (5) other stationary RICE. The other stationary RICE category has been further divided into four subcategories: (1) 2SLB stationary RICE, (2) 4SLB stationary RICE, (3) 4SRB stationary RICE and (4) CI stationary RICE.

NOTE: This checklist has not duplicated emission calculations methods, performance tests for add-on devices or specific list of records. They are noted, where needed, to the appropriate Federal Register (FR) or Code of Federal Regulation (CFR) section. Definitions for this subpart, applicability of general provisions and applicability flow charts are included at the end of the checklist.

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I. Pre Site Visit Review

1. What should I do before I visit the facility to be inspected?

- Review any available information on the facility. This can be found in agency files containing construction and/or operating permits, reports, enforcement actions or by contacting facility personnel.

Facility ID/Permit Number(s):	
Facility Name/Address:	
Facility Contact Name:	
Facility Number/E-mail/Fax:	
Facility Contact Address:	

- Review Inspection History

Inspector	Title/Agency	Phone Number	Date of Inspection

- Review any agency or facility specific safety procedures.

II. Applicability

2. Is facility subject to the RICE NESHAP? [63.6585](#)

- Major Source facility for HAP emissions that own or operate a stationary RICE (Reciprocating Internal Combustion Engine)

1. Does this facility own or operate a stationary RICE? Yes No
2. Is this facility a Title V or Major Source? Yes No
3. Is the facility subject to the RICE NESHAP Yes No

NOTE: For facilities subject to this subpart, the primary sources of HAP emissions are exhaust gases from combustion of gaseous fuels and liquid fuels in stationary RICE. The HAP chemicals that are present in significant quantities from stationary RICE include: **Formaldehyde, Acrolein, Methanol** and **Acetaldehyde**

3. If not a major source, what type of records does the facility have to prove its status? 63.1(b)(3) and 63.10(b)(3)

- Records of the total amount of materials used each month, and, if necessary, the HAP content of each material and the calculation of the total HAP consumed each month. Yes No
- Records that began 12 months before the source's compliance date. Yes No
- Records are kept for 5 years after they are created. Yes No

4. What engines at the facility are subject to the RICE NESHAP? 63.6590

- Does the facility have any existing, new or reconstructed stationary reciprocating internal combustion engines with a site-rating of more than 500 brake horsepower? Yes No
 - New: construction of the source commenced on or after December 19, 2002
 - Existing: construction or reconstruction of the source commenced before December 19, 2002
 - Reconstructed: as defined in 40 CFR 63.2, where reconstruction commenced on or after Dec 19 2002.

5. Of the engines subject to the RICE NESHAP are any excluded or subject to limited requirements? 63.6585 & 63.6590

- Excluded – A stationary RICE being tested at a stationary RICE test cell/stand.
- Limited requirements – For the **existing stationary RICE** listed below, the facility does not have to meet the requirements of this subpart and of the general provisions subpart A (40 CFR 63). No initial notification is necessary. Check if applicable:
 - An existing stationary RICE that is a spark ignition 2 stroke lean burn (2SLB)
 - An existing stationary RICE that is a spark ignition 4 stroke lean burn (4SLB)
 - An existing compression ignition (CI) stationary RICE
 - An existing emergency stationary RICE
 - An existing limited use stationary RICE
 - An existing stationary RICE that combusts landfill gas or digester gas equivalent to 10% or more of the gross heat input on an annual basis
- Limited requirements – For the stationary RICE listed below, meet only initial notification requirements of 63.6645(d). Check if applicable:
 - A stationary RICE that is a new or reconstructed emergency stationary RICE
 - A stationary RICE that is a new or reconstructed limited use stationary RICE
- Limited requirements – For the stationary RICE listed below, meet only initial notifications requirements of 63.6645(d) and the requirements of 63.6625(c) [daily fuel use monitoring], 63.6650(g) [annual reporting per Table 7 in this subpart], and 63.6655(c) [record keeping]. Check if applicable:
 - A new or reconstructed stationary RICE that combusts landfill or digester gas equivalent to 10% or more of the gross heat input on an annual basis

6. Depending on the type of stationary RICE, has the facility met the compliance date for emissions and operating limitations? (See Section X) 63.6595

- Existing stationary RICE: Affected source must comply by June 15, 2007. Yes No NA
- New or reconstructed stationary RICE started up before August 16, 2004: Affected source must comply by August 16, 2004. Yes No NA
- New or reconstructed stationary RICE started up after August 16, 2004: Affected source must comply upon startup. Yes No NA
- Area sources that become major sources: Yes No NA
 - Stationary RICE constructed or reconstructed after the area source becomes a major source: Affected source must comply upon startup
 - Stationary RICE constructed or reconstructed before area source becomes a major source: Affected source must comply within 3 years after facility became a major source.
- Notification requirements of 63.6645 and of the general provisions (40 CFR 63, Subpart A) met by owner/operators of affected sources. [\(See Section VII\)](#) Yes No NA

III. Emissions and Operating Limitations

7. Has the facility met the applicable emissions limitations? 63.6600

Reminder: Owner/operators of **existing 2SLB stationary RICE, existing 4SLB stationary RICE, existing CI RICE, a stationary RICE that combusts landfill gas or digester gas** equivalent to 10% or more of the gross heat input on an annual basis, **an emergency stationary RICE, or a limited use stationary RICE** do not need to comply with the emissions limitations in Tables 1A and 2A of this subpart.

Emissions Limitations for Existing, New and Reconstructed RICE (At 100% Load plus/minus 10%) See Subpart ZZZZ Tables 1A and 2A				
Stationary RICE Source	Emission Limitations (One of the following for each source type must be met)	Limits Met?		
		Y	N	NA
4SRB RICE	76% or more formaldehyde emissions reduction (a 75% reduction allowed until 6/15/2007 if construction or reconstruction commenced between 12/19/2002 and 6/15/2007); or			
	Limit concentration of formaldehyde in the RICE exhaust to 350 ppbvd or less at 15% O ₂ .			
2SLB Stationary Rice – Lean Burn	58% or more CO emissions reduction; or			
	Limit formaldehyde concentration in exhaust to 12 ppmvd or less at 15% O ₂ . (17 ppmvd or less at 15% O ₂ allowed until 6/15/2007, if construction or reconstruction commenced between 12/19/2002 and 6/15/2007).			
4SLB Stationary Rice – Lean Burn	93% or more CO emissions reduction; or			
	Limit formaldehyde concentration in the exhaust to 14ppmvd or less at 15 % O ₂ .			
CI – Compression Ignition Stationary RICE	70% or more CO emissions reduction; or			
	Limit formaldehyde concentration in exhaust to 580 ppbvd or less at 15% O ₂ .			

8. Has the facility met applicable operating limitations? 63.6600

Reminder: Owner/operators of **existing 2SLB stationary RICE, existing 4SLB stationary RICE, existing CI RICE, a stationary RICE that combusts landfill gas or digester gas** equivalent to 10% or more of the gross heat input on an annual basis, **an emergency stationary RICE, or a limited use stationary RICE** do not need to comply with operating limitations in Tables 1B and 2B.

Operating Limitations for Existing, New and Reconstructed Stationary Rice (See Subpart ZZZZ, Tables 1B and 2B)				
Stationary RICE	Operating Limitations (All operating limitations must be met)	Limits Met?		
		Y	N	NA
4SRB complying with the requirement to reduce formaldehyde emissions by 76% or more (or by 75% or more if applicable) and using NSCR; or 4SRB complying with the requirement to limit formaldehyde concentration in the exhaust to 350 ppbvd or less at 15% O ₂ and using NSCR.	Maintain the catalyst so that the pressure drop across the catalyst does not change by more than two inches of water at 100 percent load plus or minus 10 percent from the pressure drop across the catalyst measured during the initial performance test; and			
	Maintain the temperature of source exhaust so that the catalyst inlet temperature is greater than or equal to 750°F and less than or equal to 1250°F.			
4SRB complying with the requirement to reduce formaldehyde emissions by 76% or more (or by 75% or more if applicable) and not using NSCR; or 4SRB complying with the requirement to limit formaldehyde concentration in the exhaust to 350 ppbvd or less at 15% O ₂ and not using NSCR.	Comply with any operating limitations approved by the Administrator.			
2SLB, 4SLB and CI complying with the requirement to reduce CO emissions and using an oxidation catalyst; or 2SLB, 4SLB and CI complying with the requirement to limit formaldehyde concentration in the RICE exhaust and using an oxidation catalyst.	Maintain catalyst so that the pressure drop across the catalyst does not change by more than two inches of water at 100 % load plus or minus 10 % from the pressure drop across the catalyst that was measured during the initial performance test; and			
	Maintain the temperature of the source exhaust so that the catalyst inlet temperature is greater than or equal to 450°F and less than or equal to 1350°F.			
2SLB, 4SLB and CI complying with the requirement to reduce CO emissions and not using an oxidation catalyst; or 2SLB, 4SLB and CI complying with the requirement to limit formaldehyde concentration in the RICE exhaust and not using an oxidation catalyst.	Comply with any operating limitations approved by the Administrator.			

IV. General Compliance Requirements

9. Has the facility met the general requirements of this subpart? 63.6605

- Facility has been in compliance at all times with emissions and operating limitations except for startup, shutdown and malfunction (SSM). See Section XIII for SSM Plan requirements. Yes No NA
- Facility operated and maintained affected sources in a manner consistent with good air pollution control practices at all times, including during startup, shutdown and malfunction. Yes No NA
- Adequate records exist to demonstrate general compliance. Yes No NA

V. Testing and Initial Compliance Requirements

10. Has the facility conducted initial performance tests or compliance demonstrations? 63.6610

- The facility has conducted the applicable initial performance tests (see <http://www.epa.gov/ttn/emc/>) or initial compliance demonstrations per **Subpart ZZZZ Table 4** within 180 days of their applicable compliance date, according to provisions in 40 CFR 63.7 (a) (2). Yes No NA

Requirements for Performance Tests (See Subpart ZZZZ Table 4)				
For each..	Complying with the requirement to...	The facility must...	Using...	According to the following requirements...
2SLB and 4SLB stationary RICE and CI stationary RICE	Reduce CO emissions	Measure the O ₂ at the inlet and outlet of the control device; and	Portable CO and O ₂ analyzer	Using ASTM D6522-00 (or methods 3A and 10). Measurements to determine O ₂ must be made at the same time as measurements for CO.
		Measure the CO at the inlet and outlet of the control device.	Portable CO and O ₂ analyzer	Using ASTM D6522-00 (or methods 3A and 10). The CO concentration must be at 15% O ₂ , dry basis.
4SRB Stationary RICE	Reduce formaldehyde emissions	Select sampling port location and the number of traverse points; and	Method 1 or 1A of 40 CFR 60, Appendix A [63.7 (d) (1) (i)]	Sampling sites must be located at the inlet and outlet of the control device.
		Measure O ₂ at the inlet and outlet of the control device; and	Method 3 or 3A or 3B of 40 CFR 60, Appendix A	Measurements to determine O ₂ concentration must be made at the same time as the measurements for formaldehyde concentration.
		Measure moisture content at the inlet and outlet of the control device; and	Method 4 of 40 CFR 60, Appendix A, or Test Method 320 of 40 CFR 64, Appendix A, or ASTM D 6348-03	Measurements to determine moisture content must be made as the same time and location as the measurements for formaldehyde concentration.
		Measure formaldehyde at the inlet and outlet of the control device.	Method 320 or 323 of 40 CFR 63, Appendix A; or ASTM D6348-03, provided in ASTM D6348-03 Annex A5 (Analyte Spiking Technique), the % R must be ≥ 70 and ≤ 130.	Formaldehyde concentration must be at 15% O ₂ , dry basis. Results of this test consist of the average of three 1-hour runs or longer.
Stationary RICE	Limit the concentration of formaldehyde in the stationary RICE exhaust	Select the sampling port location and the number of traverse points; and	Method 1 or 1A of 40 CFR part 60, Appendix A [63.7 (d) (1) (i)]	If using a control device, the sampling site must be located at the outlet of the control device.
		Determine the O ₂ concentration of the stationary RICE exhaust at the sampling port location; and	Method 3 or 3A or 3B or 40 CFR Part 60, Appendix A	Measurements to determine O ₂ concentration must be made at the same time and location as the measurements for formaldehyde concentration.
		Measure moisture content of the stationary RICE exhaust at the sampling port location; and	Method 4 of 40 CFR 60, Appendix A, or Test Method 320 of 40 CFR 63, Appendix A, or ASTM D 6348-03	Measurements to determine moisture content must be made at the same time and location as the measurements for formaldehyde concentration.
		Measure formaldehyde at the exhaust of the stationary RICE.	Method 320 or 323 of 40 CFR 63, Appendix A; or ASTM D6348-03, provided in ASTM D6348-03 Annex A5 (Analyte Spiking Technique), the percent R must be ≥70 and ≤130.	Formaldehyde concentration must be at 15% O ₂ , dry basis. Results of this test consist of the average of three 1-hour runs or longer.

- If the facility has a source that was constructed or reconstructed between 12/19/2002 and 06/15/2004, has it demonstrated initial compliance with either the proposed emission limitations or the promulgated emissions limitations by 02/10/2005 or no later than 180 days after startup of the source, whichever is later, according to 63.7(a)(2)(ix)? Yes No NA
- If the facility has a source that was constructed or reconstructed between 12/19/02 and 06/15/04 and chose to comply with the proposed emissions limitations, was a second performance test conducted to demonstrate compliance with the promulgated emission limitations by 12/13/2007 or after startup of the source, whichever is later, according to 63.7(a)(2)(ix)? Yes No NA

NOTE: Initial performance tests are not required for units that have had a previous performance test as long as the tests met all of the following requirements: the tests must have been conducted using the same methods specified in this subpart, the tests are not older than 2 years, the tests were reviewed and accepted by the Administrator, no process or equipment changes were made since the test were performed unless the facility can reliably demonstrate compliance despite process or equipment changes, and tests were conducted at any load condition within plus or minus 10% of 100% load.

11. Has the facility conducted subsequent performance tests? 63.6615

- Subsequent performance tests, (required if the facility must comply with emission and operating limitations) have been conducted according to the schedule below. Yes No NA

Subsequent Performance Tests (See Subpart ZZZZ Table 3)				
Applicable		For each...	Complying with the requirement to...	The facility must....
Yes	No			
		2SLB and 4SLB stationary RICE and CI stationary RICE	Reduce CO emissions and not using a CEMS	Conduct subsequent performance tests semiannually. (See Note)
		4SRB stationary RICE with a brake horsepower ≥ 5,000.	Reduce formaldehyde emissions	Conduct subsequent performance tests semiannually. (See Note)
		Stationary RICE (all stationary RICE subcategories and all brake horsepower ratings).	Limit the concentration of formaldehyde in the stationary RICE exhaust	Conduct subsequent performance tests semiannually. (See Note)

Note: After a facility has demonstrated compliance for two consecutive tests, they may reduce the frequency of subsequent performance tests to annually. If annual performance tests indicate non-compliance with CO or formaldehyde emission limitation, or if a facility deviates from any operating limitations, then the semiannual performance tests must be resumed.

12. Did the facility conduct the proper performance tests using proper procedures? 63.6620

- The facility conducted applicable performance tests described in Subpart ZZZZ Tables 3 and 4 and according to requirements in 63.7(e)(1). Yes No NA
- The applicable performance tests were conducted at any load condition within plus or minus 10% of a 100% load. Yes No NA
- The applicable performance tests excluded periods of startup, shutdown or malfunction. Yes No NA

- The facility conducted three separate test runs for each applicable performance test and each run lasted for at least 1 hour. Yes No NA
- The facility used Equation 1 of **63.6620** to determine compliance with the percent reduction requirement and normalized the carbon monoxide (CO) or formaldehyde concentrations at the inlet and outlet of the control device to a dry basis and to 15% oxygen, or an equivalent percent carbon dioxide (CO₂). Yes No NA
- If pollutant concentrations needed to be corrected to 15% O₂ and the CO₂ concentration was measured in lieu of oxygen concentration measurement, a CO₂ correction factor was calculated and used according to 63.6620 (e) (2)(i) through (iii). Yes No NA
- If the facility had to comply with an emission limitation to reduce CO and is not using an oxidation catalyst; or had to comply with an emission limitation to reduce formaldehyde and is not using NSCR; or had to comply with an emission limitation to limit the concentration of formaldehyde in the exhaust of a stationary RICE and is not using an oxidation catalyst or NSCR, did the facility petition the Administrator for operating limitations to be established during the initial performance tests, or for approval of no operating limitations? Yes No NA
- If applicable, did the petition for alternative operating limitations or no operating limitations include the appropriate information as outlined in **63.6620 (g)** through **(h)**? Yes No NA
- If applicable, did the facility complete the initial tests only after petition approval was granted? Yes No NA
- Did the facility determine the engine percent load during the performance test and document calculations, assumptions and measurement devices used to measure or estimate the percent load? Yes No NA
- Did the facility include a written report of the average percent load determination with the notification of compliance status with the following information: engine model number, engine manufacturer and year of purchase, manufacturer's site-rated brake horsepower, ambient temperature, pressure and humidity during the performance test, explanation of all assumptions made to estimate or calculate percent load, model number of any measurement devices used and accuracy estimate of measurement device (percentage of true value)? Yes No NA

13. Did the facility meet monitoring, installation, operation and maintenance requirements? 63.6625

- If the facility elected to install a CEMS (as in **Subpart ZZZZ Table 5**) to monitor CO and either oxygen and CO₂ at the inlet and outlet of the control device, was it installed, operated and maintained according to applicable performance specifications in 40 CFR 60, Appendix B? Yes No NA
- Did the facility conduct an initial performance evaluation and an annual relative accuracy test audit (RATA) of the CEMS according to 63.8 and according to applicable performance specifications of 40 CFR 60, Appendix B? Yes No NA
- Did the facility conduct daily and periodic data quality checks in accordance with 40 CFR 60, Appendix F, procedure 1? Yes No NA
- Did the CEMS used complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period? At least two data points are required with each representing a different 15-minute period [63.8 (c) (4) (ii)]. Yes No NA
- Was the CEMS data reduced [see **63.8 (g)(2)**] and recorded in ppm or ppb (as appropriate) at 15 % oxygen or the equivalent CO₂ concentration? Yes No NA

- If the facility was required to install a continuous parameter monitoring system (CPMS) as specified in Subpart ZZZZ Table 5, was it installed and is it being operated and maintained in accordance with 63.8? Yes No NA
- If the facility is operating a new or reconstructed RICE which fires landfill gas or digester gas equivalent to 10 % or more of the gross heat input on an annual basis, has it monitored and recorded the fuel usage daily with separate meters to measure the volumetric flow rate of each fuel. Yes No NA
- Is the new or reconstructed RICE operating in a manner that reasonably minimizes HAP emissions? Yes No NA

14. How does the facility demonstrate initial compliance with the emission limitations and operating limitations? 63.6630

- Was initial compliance demonstrated with each applicable emission and operating limit shown in Subpart ZZZZ Table 5? Yes No NA

Initial Compliance with Emissions and Operating Limitations (See Subpart ZZZZ, Table 5)				
Applicable		For each...	Complying with requirement to...	Initial compliance has been demonstrated if...
Yes	No			
		2SLB and 4SLB stationary RICE and CI stationary RICE	Reduce CO emissions using oxidation catalyst, and using CPMS	The average CO emissions reduction as determined from the initial performance test achieved the required % reduction; and the facility installed a CPMS to continuously monitor catalyst inlet temperature; and the facility recorded the catalyst pressure drop and inlet temperature during the initial performance test.
		2SLB and 4SLB stationary RICE and CI stationary RICE	Reduce CO emissions and not using oxidation catalyst.	The average CO emissions reduction from the initial performance test achieved the required % reduction; and a CPMS has been installed to continuously monitor operating parameters; and approved operating parameter (if any) were recorded during the initial performance test.
		2SLB and 4SLB stationary RICE and CI stationary RICE	Reduce CO emissions, and using a CEMS.	A CEMS has been installed to continuously monitor CO and either O ₂ or CO ₂ at the inlet and outlet of the oxidation catalyst; and a performance evaluation of the CEMS was conducted; and the average reduction of CO (calculated) equals or exceeds the required % reduction. The initial test comprises the first 4-hour period after successful validation of the CEMS. Compliance is based on the average % reduction achieved during the 4-hour period.
		4SRB stationary RICE	Reduce formaldehyde emissions and using NSCR (Non-selective Catalytic Reduction)	The average formaldehyde emissions reduction for the initial performance test is ≥ the required % reduction; and a CPMS was installed to continuously monitor catalyst inlet temperature; and the catalyst pressure drop and inlet temperature was recorded during the initial performance test.
		4SRB stationary RICE	Reduce formaldehyde emissions and not using NSCR	The average formaldehyde emissions reduction from the initial performance test is ≥ the required % reduction; and a CPMS has been installed to continuously monitor approved operating parameters; and the approved operating parameters (if any) were recorded during the initial performance test.
		Stationary RICE	Limit the concentration of formaldehyde in the stationary RICE exhaust and using oxidation catalyst or NSCR	The average formaldehyde concentration, corrected to 15% O ₂ , dry basis, from the three test runs is ≤ the formaldehyde emission limitation; and a CPMS has been installed to continuously monitor catalyst inlet temperature; and the catalyst pressure drop and inlet temperature during the initial performance test was recorded.
		Stationary RICE	Limit the concentration of formaldehyde in the stationary RICE exhaust and not using NSCR.	The average formaldehyde concentration, corrected to 15% O ₂ , dry basis, from the three test runs is ≤ the formaldehyde emission limitation; and a CPMS has been installed to continuously monitor approved operating parameters (if any); and the approved operating parameters (if any) were recorded during the initial performance test.

**16. Has the facility demonstrated compliance with applicable emissions/operating limitations?
63.6640**

- The facility has demonstrated compliance with each applicable emission and operating limitations according to the methods specified in **Subpart ZZZZ, Table 6.** Yes No NA

Continuous Compliance with Emissions and Operating Limitations (See Subpart ZZZZ, Table 6)				
Applicable		For each...	Complying with requirement to...	Continuous compliance must be demonstrated by...
Yes	No			
		2SLB and 4SLB stationary RICE and CI stationary RICE	Reduce CO emissions and using an oxidation catalyst, and using a CPMS	Conducting semiannual performance test for CO to demonstrate that the required CO % reduction is achieved; collecting the catalyst inlet temperature data; reducing data to 4-hour rolling averages; maintaining the 4-hour rolling averages within the operating limitations for the catalyst inlet temperature; and measuring the pressure drop across the catalyst once per month and demonstrating that it is within operating limitations established during the performance test.
		2SLB and 4SLB stationary RICE and CI stationary RICE	Reduce CO emissions and not using an oxidation catalyst, and using a CPMS.	Conducting semiannual performance tests for CO to demonstrate that the required % reduction is achieved; and collecting the approved operating parameter (if any) data; and reducing these data to 4-hour rolling averages; and maintaining the 4-hour rolling averages within the operating limitations for the operating parameters established during the performance test.
		2SLB and 4SLB stationary RICE and CI stationary RICE	Reduce CO emissions, and using a CEMS.	Collecting the monitoring data and reducing the measurements to 1-hour averages, calculating the % CO emissions reduction; demonstrating that the catalyst achieves the required % CO emissions reduction over the 4-hour averaging period; and conducting an annual RATA of the CEMS as well as daily and periodic data quality checks in accordance with 40 CFR 60, Appendix F, procedure 1.
		4SRB stationary RICE	Reduce formaldehyde emissions and using NSCR (Non-selective Catalytic Reduction)	Collecting the catalyst inlet temperature data; reducing data to 4-hour rolling averages; reducing the data to 4-hour rolling averages; maintaining the 4-hour rolling averages within the operating limitations for the catalyst inlet temperature; and measuring the pressure drop across the catalyst once per month and demonstrating that it is within the operating limitation established during the performance test.
		4SRB stationary RICE	Reduce formaldehyde emissions and not using NSCR	Collecting the approved operating parameter (if any) data; reducing these data to 4-hour rolling averages; and maintaining the 4-hour rolling averages within the operating limitations for the operating parameters established during the performance test.
		4SRB stationary RICE with a brake horsepower \geq 5,000.	Reduce formaldehyde emissions	Conducting semiannual performance tests for formaldehyde to demonstrate that the required formaldehyde 5 reduction is achieved.
		Stationary RICE	Limit the concentration of formaldehyde in the stationary RICE exhaust and using oxidation catalyst or NSCR	Conducting semiannual performance tests for formaldehyde to demonstrate that emissions remain at or below the formaldehyde concentration limit; collecting the catalyst inlet temperature data; reducing this data to 4-hour rolling averages; maintaining the 4-hour rolling averages within the operating limitations for the catalyst inlet temperature; and measuring the pressure drop across the catalyst once per month and demonstrating that it is within the operating limitation established during the performance test.
		Stationary RICE	Limit the concentration of formaldehyde in the stationary RICE exhaust and not using oxidation catalyst or NSCR.	Conducting semiannual performance tests for formaldehyde to demonstrate that the emissions remain at or below the formaldehyde concentration limit; collecting the approved operating parameter (if any) data; reducing this data to 4-hour rolling averages; and maintaining the 4-hour rolling averages within the operating limitations for the operating parameters established during the performance test.

Note: Deviations from the emission or operating limitations during startup, shutdown or malfunction are not violations if the facility can satisfactorily demonstrate that they were operating in accordance with their startup, shutdown and malfunction plan. For new, reconstructed and rebuilt stationary RICE, deviations from the emission or operating limitations that occur during the first 200 hours of operation (engine burn-in period) are not violations. See 63.6(e) and 63.7(e)(i).

- When applicable, the facility reported each instance that emissions or operating limitations were not met, per 63.6650. Other deviations were reported as well. Yes No NA
- If the facility changed a catalyst, they reestablished the values of the operating parameters measured during the initial performance tests. Performance tests were also conducted to demonstrate applicable emission limitations were met. Yes No NA
- The facility has established and operated according to plan during periods of startup, shutdown and malfunction. Yes No NA
- As applicable, the facility reported each instance in which it did not meet the requirements of Subpart ZZZZ, Table 8 [\[See Section XI\]](#). Yes No NA

Note: A facility that owns or operates an existing 2SLB stationary RICE, an existing 4SLB stationary RICE, an existing CI stationary RICE, an existing emergency stationary RICE, an existing limited use emergency stationary RICE, or an existing stationary RICE which fires landfill gas or digester gas equivalent to 10% or more of the gross heat input on an annual basis, does not need to comply with the requirements of Subpart ZZZZ Table 8.

Note: A facility that owns or operates a new or reconstructed stationary RICE that combusts landfill gas or digester gas equivalent to 10% 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, does not need to comply with the requirements in Subpart ZZZZ Table 8, **except** for the initial notification requirements.

VII. Notifications, Reports, and Records

17. Has the facility submitted required initial notification? 63.6645

- If the facility started up a stationary RICE before the effective date of this subpart, was the initial notification submitted no later than December 13, 2004. Yes No NA
- If the facility started up a new or reconstructed stationary RICE on or after August 16, 2004, was the initial notification submitted no later than 120 days after this subpart became applicable. Yes No NA
- If the facility was required to submit an initial notification but was not otherwise affected by the requirements of this subpart, did the notification include the appropriate information (Refer to 63.9(b) (2) (i) through (v)). Did the facility also include a statement that their stationary RICE had no additional requirements along with an explanation of the exclusion? Yes No NA
- If the facility was required to conduct a performance test, was a Notification of Intent to conduct the test submitted at least 60 days before the test was scheduled? (Refer to 63.7 (b) (1)). Yes No NA
- If the facility was required to conduct a performance and/or other initial compliance demonstration per Subpart ZZZZ Tables 4 and 5, was a Notice of Compliance Status submitted? (Refer to 63.9 (h) (2) (ii)). Yes No NA

- For each initial compliance demonstration required by Subpart ZZZZ Table 5 that **does not** include a performance test, was a Notification of Compliance Status submitted before the close of business on the 30th day following the completion of the initial compliance demonstration? Yes No NA
- For each initial compliance demonstration required by Subpart ZZZZ Table 5 that includes a performance test according to Table 4, was a Notification of Compliance Status, including performance test results, submitted before the close of business on the 60th day following the completion of the performance test? (Refer to 64.10) d) (2). Yes No NA

18. Has the facility submitted required reports? 63.6650

- Has the facility submitted each report by the timeline specified in Subpart ZZZZ Table 7 that applies, unless an alternative schedule has been approved by the Administrator? Yes No NA

Requirements for Reports (See Subpart ZZZZ Table 7)				
Applicable		The facility must submit....	The report must contain...	Submit the report ...
Yes	No			
		Compliance report	As applicable, a statement of no deviations of emission or operating limitations during the reporting period; as applicable, a statement that there were no periods in which the CMS (including CEMS and CPMS) was out-of-control during the reporting period, the CEMS and CPMS, was out of control; or	Semiannually according to the requirements in 63.6650(b)
			A statement of deviation from any emission or operating limitation during the reporting period containing the information in 63.6650(d); and a statement that there were periods during which the CMS, including CEMS and CPMS, was out of control; or	Semiannually according to the requirements in 63.6650 (b).
			A statement including the information in 63.10(d) (5) (i), if the facility had a startup, shutdown or malfunction during the reporting period.	Semiannually according to the requirements in 63.6650(b).
		An immediate startup, shutdown, and malfunction report if actions addressing the startup, shutdown, or malfunction were inconsistent with the startup, shutdown or malfunction plan during the reporting period.	A description of the actions taken for the event; and	By fax or telephone within 2 working days after starting actions inconsistent with the plan.
			The information in 63.10(d)(5)(ii)	By letter within 7 working days after the end of the event unless the facility has made alternative arrangements with the permitting authorities [See 63.10(d) (5) (ii).
		Report	The fuel flow rate of each fuel and the heating values that were used in the facility's calculations, demonstrating that the percentage of heat input provided by the landfill gas or digester gas, is equivalent to 10% or more of the gross heat input on an annual basis; and	Annually, according to the requirements in 63.6650
			The operating limits provided in the facility's federally enforceable permit, and any deviations from the limits; and	Annually, according to the requirements in 63.6650
			A description of any problems or errors suspected with the meters.	Annually, according to the requirements in 63.6650

- The facility's first compliance report covers the period beginning with the compliance date as specified for the affected source and ending on June 30 or December 31, whichever date is the first date following the end of the first calendar half after the specified compliance date. Yes No NA
- The facility's first compliance report was postmarked or delivered no later than July 31 or January 31, whichever date follows the end of the first calendar half after the affected source's compliance date. Yes No NA
- Each subsequent compliance report covers the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31. Yes No NA
- Each subsequent compliance report is 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. Yes No NA

Note: For each stationary RICE that is subject to permitting regulations per 40 CFR 70 or 71, and if the permitting authority has established dates for submitting semiannual reports, the facility may submit the first and subsequent compliance reports according to the dates established by the permitting authority versus the dates listed above.

- The compliance report includes the following information:
 - Company name and address Yes No NA
 - A statement by a responsible official with that official's name, title, and signature, certifying the accuracy of the content of the report. Yes No NA
 - The date of the report and the beginning/ending dates of the reporting period. Yes No NA
 - Information on any startup, shutdown or malfunction during shutdown period, as applicable. Yes No NA
 - A statement that there were no deviations from applicable emissions and operating limitations during the reporting period as appropriate. Yes No NA
 - As appropriate, a statement that there were no periods during the reporting period in which the continuous monitoring system (CMS), including CEMS and CPMS, was out-of-control. Yes No NA
 - If the facility has a stationary RICE and does not use a CMS and deviated from an emission or operational limitation during the reporting period, the compliance report must include the above information along with the following: Yes No NA
 - Total operating time of the stationary RICE at which the deviation occurred, and
 - Information on the number, duration and cause of deviation and the corrective action taken.
 - If the facility has a stationary RICE that uses a CMS for compliance and deviated from an emission or operational limitation during the reporting period, did the compliance report include the above information along with the following:
 - The date and time that the malfunction stopped and started;
 - The date, time and duration that each CMS was inoperative and out-of-control;

- The date and time that each deviation started and stopped and whether each deviation occurred during a period of malfunction or during another period;
 - 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 the reporting period;
 - A breakdown of the total duration during the reporting period into those that are due to control equipment problems, process problems, other known/unknown causes;
 - A summary of the total duration of CMS downtime during the reporting period, 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.
 - An identification of each parameter and pollutant (CO or formaldehyde) that was monitored at the stationary RICE;
 - A brief description of the station RICE and a brief description of the CMS;
 - The date of the latest CMS certification or audit; and
 - A description of any changes in CMS, processes, or controls since the last reporting period.
- For affected sources that are also covered by Title V operating permit, were all deviations reported in the Title V semiannual monitoring report as required by 40 CFR 70.6? Yes No NA

Note: If the facility submits a compliance report for an affected source according to Subpart ZZZZ, Table 7, along with or as part of the semiannual monitoring report required by a Title V operating permit and it includes all the information required by that subpart, then the compliance report will be deemed to satisfy any obligation to submit the semiannual monitoring report. However, submission of a compliance report does not affect any obligation the facility may have to report deviations from permit requirements.

- If the facility is operating a new or reconstructed stationary RICE which fires landfill gas or digester gas equivalent to 10% or more of the gross heat input on an annual basis, was an annual report submitted according to Subpart ZZZZ Table 7 by the date specified (unless a different schedule has been approved by the Administrator). Data to be reported is in accordance with 66.6650 (g)(1) – (g)(3).
 Yes No NA

19. Does the facility have the appropriate records as required? 63.6655

- The facility has kept the records specified below in addition to those mentioned in other parts of the checklist:
- The facility has kept a copy of each notification (initial, compliance status) and report submitted to the Agency. Yes No NA
 - The facility has kept all documentation supporting any notification or compliance status report that was submitted. Yes No NA
 - The facility kept records related to startup, shutdown and malfunction. Yes No NA
 - The facility kept records of performance tests and performance evaluations (See 63.10(b) (2) (viii)). Yes No NA
 - All records associated with CEMS or CPMS (See 63.10(b) (2) (vi) – (xi)), including performance evaluation plans (See 63.8(d) (3) and requests for alternatives to the relative accuracy test (See 63,863.8 (f) (6) (i)). Yes No NA
 - Records of daily fuel usage monitors for new or reconstructed stationary RICE that fires landfill gas or digester gas equivalent to 10% or more of the gross heat input on an annual basis. Yes No NA

- Records, as applicable, required in Subpart ZZZZ Table 6 to show continuous compliance with each emission or operating limitation. Yes No NA

20. Did the facility keep required records in the appropriate form and duration? 63.6660

- The records are readily available and in a form suitable for expeditious review. Yes No NA
- The records are kept for 5 years following the date that each record is generated. Yes No NA
- The records are kept on site for at least 2 years after the date that each record was generated. The records can be kept offsite for the remaining 3 years. Yes No NA
- The records are kept on paper or an alternative media, such as microfilm, computer, computer disks, magnetic tapes, or on microfiche (Refer to 63.10(b) (1)). Yes No NA

VIII. Other Requirements and Information

21. What parts of the General Provisions apply to the source? 63.6665

- Did the facility comply with the applicable general provisions shown in Subpart ZZZZ, Table 8? ([See Section XI](#)). Yes No NA

23. Who is the implementing and enforcement authority for this facility? 63.6670

- US EPA -- Region: _____
- Delegated State Authority -- Name: _____

Inspector Notes:

IX. Definitions for the RICE NESHP – 63.6675

The following definitions are for terms used in this Subpart ZZZZ and are also defined in the Clean Air Act (CAA) in 40 CFR 63.2 and in the general provisions of this part.

Area Source – any stationary source of HAP that is not a major source as defined in 40 CFR 63.

Associated Equipment – 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.

Compression ignition engine – 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, including diesel engines, dual fuel engines and engines that are not spark ignition.

Construction – the on-site fabrication, erection, or installation of an affected source. Construction does not include the removal of all equipment comprising an affected source from an existing location and reinstallation of such equipment at a new location. The owner or operator of an existing affected source that is relocated may elect not to reinstall minor ancillary equipment including, but not limited to, piping, ductwork, and valves. However, removal and reinstallation of an affected source will be construed as reconstruction if it satisfies the criteria for reconstruction as defined in this section. The costs of replacing minor ancillary equipment must be considered in determining whether the existing affected source is reconstructed.

Custody transfer – 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 – 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 - 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 (compression ignition).

Diesel fuel – any liquid obtained from the distillation of petroleum with a boiling point of approximately 150 to 360 degrees Celsius (e.g. Fuel Oil #2).

Digester gas – any gaseous by-product of wastewater treatment typically formed through the anaerobic decomposition of organic waste materials and composed principally of methane and CO₂.

Dual-fuel engine – 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 – any stationary RICE that operates in an emergency situation. Examples include stationary RICE used to produce power for critical networks or equipment when electric power from the local utility is interrupted, or stationary RICE used to pump water in the case of fire or flood, etc. Emergency stationary RICE may be operated 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. Emergency stationary RICE may also operate an additional 50 hours per year in non-emergency situations.

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

Gaseous fuel – a material used for combustion which is in the gaseous state at standard atmospheric temperature and pressure conditions.

Glycol dehydration unit – a device in which a liquid 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) - any air pollutant listed in, or pursuant to section 112(b) of the Clean Air Act. For list of hazardous air pollutants, go to www.epa.gov/ttn/atw/orig189.html.

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

Landfill gas - 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 CO₂.

Lean burn engine – any tow-stroke or four-stroke spark ignited engine that does not meet the definition of a rich burn engine.

Limited use stationary RICE – any stationary RICE that operates less than 100 hours per year.

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

Liquid fuel – 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 ZZZZ, shall have the same meaning as in 40 CFR 63.2, except that:

1. Emissions from any oil or gas exploration or production well 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 source, even when emissions points are in 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 40 CFR 63.1271 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 40 CFR 63.1271 shall not be aggregated.

Malfunction – 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 – 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. May be field or pipeline quality.

Non-selective catalytic reduction (NSCR) – an add-on catalytic nitrogen oxides (NO_x) control device for rich burn engines that, in a two-stop reaction, promotes the conversion of excess oxygen, NO_x, CO, and volatile organic compounds (VOC) into CO₂, 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 – an add-on catalytic control device that controls CO and VOC by oxidation.

Peaking unit or engine – any standby engine intended for use during periods of high demand that are not emergencies.

Percent load – 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 – 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 – those oil and gas production facilities located prior to the point of custody transfer.

Production well – any hole drilled in the earth from which crude oil, condensate, or field natural gas is extracted.

Propane – a colorless gas derived from petroleum and natural gas, with the molecular structure C₃H₈.

Reconstruction – unless otherwise defined in a relevant standard, means the replacement of components of an affected or a previously non-affected source to such an extent that:

1. The fixed capital cost of the new components exceeds 50 percent of the fixed capital cost that would be required to construct a comparable new source; and
2. It is technologically and economically feasible for the reconstructed source to meet the relevant standard(s) established by the Administrator (or a State) pursuant to section 112 of the Act. Upon reconstruction, an affected source, or a stationary source that becomes an affected source, is subject to relevant standards for new sources, including compliance dates, irrespective of any change in emissions of hazardous air pollutants from that source.

Responsible Official – as defined in 40 CFR 70.2 means one of the following:

1. For a corporation: a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit and either:
 - i. The facilities employ more than 250 persons or have gross annual sales or expenditures exceeding \$25 million (in second quarter 1980 dollars); or
 - ii. The delegation of authority to such representatives is approved in advance by the permitting authority;
2. For a partnership or sole proprietorship: a general partner or the proprietor, respectively;
3. For a municipality, State, Federal, or other public agency: Either a principal executive officer or ranking elected official. For the purposes of this part, a principal executive officer of a Federal agency includes the chief executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., a Regional Administrator of EPA); or
4. For affected sources:
 - i. The designated representative in so far as actions, standards, requirements, or prohibitions under title IV of the Act or the regulations promulgated there under are concerned; and
 - ii. The designated representative for any other purposes under part 70.

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

Site-rated HP – the maximum manufacturer's design capacity at engine site conditions.

Spark ignition engine – a type of engine in which a compressed air/fuel mixture is ignited by a timed electric spark generated by a spark plug.

Stationary reciprocating internal combustion engine (RICE) – any reciprocating internal combustion engine which used 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.

An engine is not considered a stationary RICE if:

- It is used to drive motor vehicles or vehicles used on for competition; or

- It is in or on a piece of equipment that is self-propelled or can be self propelled as well as performing another function (for example, garden tractors, off-highway mobile cranes and bulldozers); or
- It is in or on a piece of equipment that is intended to be propelled while performing its function (for example lawnmowers and string trimmers); or
- It changes location within one year (or shorter period of time if the engine is at a seasonal source).

Stationary RICE are typically used for compressor and pump drives, electricity generation, and other industrial processes. Stationary RICE may be fueled by gasoline, diesel fuel, natural gas, landfill gas, digester gas and other types of fuels.

Stationary RICE test cell/stand – an engine test cell/stand, as defined in subpart P P P P P of this part, that tests stationary RICE.

Stoichiometric – the theoretical air-to-fuel ratio required for complete combustion.

Storage vessel with the potential for flash emissions – 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 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 – 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 – 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.

X. RICE MACT Compliance Timeline (Final Rule: 69 FR 33474)

A. New or Reconstructed 2SLB Stationary RICE Timeline (See Notes 1 & 2)

Event	Timeline
Effective Date	August 16, 2004
Submit Initial Notification	If startup occurs before August 16, 2004, submit notification no later than December 13, 2004 . [63.6645(b)] If startup occurs on or after August 16, 2004, submit it no later than 120 days after startup . [63.6645(c)]
Compliance Date (See Note 3)	August 16, 2004 or upon startup, whichever is later. [63.6595(a)(2) and (3)]
Notification of Intent to Conduct a Performance Test	Within 60 days before the performance test is scheduled to begin. [63.6645(e)]
Conduct Performance Test and Other Initial Compliance Demonstrations (See Note 4)	By February 12, 2005 or within 180 days after the startup , whichever is later. [63.6610(a) and Table 5] <ul style="list-style-type: none"> If construction commenced between December 19, 2002 and June 15, 2004, initial compliance must be demonstrated with either the proposed or promulgated emission limits no later than February 10, 2005 or no later than 180 days after startup of the source, whichever is later. [63.6610(b)] If construction commenced between December 19, 2002 and June 15, 2004, and initial compliance is demonstrated with the proposed emissions limits, a second performance test to demonstrate compliance with the promulgated emission limit must be conducted by December 13, 2007 or after the startup of the source, whichever is later. [63.6610(c)]
Results of Initial Performance Tests	Due April 13, 2005 or within 60 days after the performance test, whichever is later, with the Notification of Compliance Status Report. [63.6645(f)(2)]
Notification of Compliance Status	No later than 30 days following the completion of the initial compliance demonstration if using a CEMS; OR no later than 60 days following completion of the performance test . [63.6645(f)(1) and (2)]
Subsequent Performance Tests (See Note 5)	Semiannually for all engines [63.6615 and Table 3] After a catalyst change, if using an oxidation catalyst to comply with Subpart ZZZZ [63.6640(b)]
Semiannual Compliance Reports (See Notes 6 & 7)	No later than July 31 or January 31 , whichever date follows the end of the first calendar half after the compliance date and semiannually on July 31 and January 31 thereafter [63.6650(b)(2) and (4)].

Notes:

- This timeline does not take into account special situations such as compliance extensions.
- New or reconstructed stationary RICE: stationary RICE with a site rating greater than 500 brake horsepower, the construction or reconstruction of which was commenced on or after December 19, 2002. [63.6590(a)(2) and (3)]
- For area sources that become a major source: stationary RICE that commence construction after the date the area source becomes a major source must be in compliance upon startup; stationary RICE that commence construction before the date the area source becomes a major source must be in compliance within 3 years after the area source becomes a major source. [63.6595(b)]
- A performance test must be conducted if you are not using a CEMS to comply with emission limitations and operating limitations. If you are using CEMS, you must conduct an initial performance evaluation and relative accuracy test audit of each CEMS and use the first 4-hour period of data after a successful validation of the CEMS to demonstrate initial compliance. An initial performance test is not required if a performance test has been previously conducted and the test meets the requirements in 63.6610(d)(1) through (5).
- After compliance is demonstrated for two consecutive tests, the frequency of the subsequent tests may be reduced to annually. If any subsequent annual tests indicate that a RICE is not in compliance, semiannual performance testing must be resumed. In addition, you must resume semiannual performance testing if you deviate from any of the operating limits [Table 3].
- The initial semiannual report must cover the period beginning on the compliance date 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 [63.6650(b)(1)]. Subsequent reports cover the semiannual reporting period from January 1 through June 30 or July 1 through December 31 [63.6650(b)(3)].
- If you are subject to permitting requirements under Title V (40 CFR Part 70 or 71), you have the option of submitting your semiannual compliance reports according to the schedule established by the permitting authority for Title V monitoring reports [63.6650(b)(5)].

B. New or Reconstructed 4SLB Stationary RICE Timeline (See Notes 1 & 2)

Event	Timeline
Effective Date	August 16, 2004
Submit Initial Notification	If startup occurs before August 16, 2004, submit notification no later than December 13, 2004 . [63.6645(b)] If startup occurs on or after August 16, 2004, submit it no later than 120 days after startup . [63.6645(c)]
Compliance Date (See Note 3)	August 16, 2004 or upon startup, whichever is later [63.6595(a)(2) and (3)]
Notification of Intent to Conduct a Performance Test	Within 60 days before the performance test is scheduled to begin. [63.6645(e)]
Conduct Performance Test and Other Initial Compliance Demonstrations (See Note 4)	By February 12, 2005 or within 180 days after the startup , whichever is later [63.6610(a) and Table 5]
Results of Initial Performance Tests	Due April 13, 2005 or within 60 days after the performance test, whichever is later, with the Notification of Compliance Status Report [63.6645(f)(2)]
Notification of Compliance Status	No later than 30 days following the completion of the initial compliance demonstration if using a CEMS; OR no later than 60 days following completion of the performance test [63.6645(f)(1) and (2)]
Subsequent Performance Tests (See Note 5)	Semiannually for all engines [63.6615 and Table 3] After a catalyst change, if using an oxidation catalyst to comply with Subpart ZZZZ [63.6640(b)]
Semiannual Compliance Reports (See Notes 6 & 7)	No later than July 31 or January 31 , whichever date follows the end of the first calendar half after the compliance date and semiannually on July 31 and January 31 thereafter [63.6650(b)(2) and (4)]

Notes:

- This timeline does not take into account special situations such as compliance extensions.
- New or reconstructed stationary RICE: stationary RICE with a site rating greater than 500 brake horsepower, the construction or reconstruction of which was commenced on or after December 19, 2002. [63.6590(a)(2) and (3)]
- For area sources that become a major source: stationary RICE that commence construction after the date the area source becomes a major source must be in compliance upon startup; stationary RICE that commence construction before the date the area source becomes a major source must be in compliance within 3 years after the area source becomes a major source. [63.6595(b)]
- A performance test must be conducted if you are not using a CEMS to comply with emission limitations and operating limitations. If you are using CEMS, you must conduct an initial performance evaluation and relative accuracy test audit of each CEMS and use the first 4-hour period of data after a successful validation of the CEMS to demonstrate initial compliance. An initial performance test is not required if a performance test has been previously conducted and the test meets the requirements in 63.6610(d)(1) through (5).
- After compliance is demonstrated for two consecutive tests, the frequency of the subsequent tests may be reduced to annually. If any subsequent annual tests indicate that a RICE is not in compliance, semiannual performance testing must be resumed. In addition, you must resume semiannual performance testing if you deviate from any of the operating limits [Table 3].
- The initial semiannual report must cover the period beginning on the compliance date 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 [63.6650(b)(1)]. Subsequent reports cover the semiannual reporting period from January 1 through June 30 or July 1 through December 31 [63.6650(b)(3)].
- If you are subject to permitting requirements under Title V (40 CFR Part 70 or 71), you have the option of submitting your semiannual compliance reports according to the schedule established by the permitting authority for Title V monitoring reports [63.6650(b)(5)].

C. New or Reconstructed 4SRB Stationary RICE Timeline (See Notes 1 & 2)

Event	Timeline
Effective Date	August 16, 2004
Submit Initial Notification	If startup occurs before August 16, 2004, submit notification no later than December 13, 2004 . [63.6645(b)] If startup occurs on or after August 16, 2004, submit it no later than 120 days after startup . [63.6645(c)]
Compliance Date (See Note 3)	August 16, 2004 or upon startup, whichever is later. [63.6595(a)(2) and (3)]
Notification of Intent to Conduct a Performance Test	Within 60 days before the performance test is scheduled to begin. [63.6645(e)]
Conduct Performance Test and Other Initial Compliance Demonstrations (See Note 4)	By February 12, 2005 or within 180 days after the startup , whichever is later. [63.6610(a) and Table 5] <ul style="list-style-type: none"> If construction commenced between December 19, 2002 and June 15, 2004, initial compliance must be demonstrated with either the proposed or promulgated emission limits no later than February 10, 2005 or no later than 180 days after startup of the source, whichever is later. [63.6610(b)] If construction commenced between December 19, 2002 and June 15, 2004, and initial compliance is demonstrated with the proposed emissions limits, a second performance test to demonstrate compliance with the promulgated emission limit must be conducted by December 13, 2007 or after the startup of the source, whichever is later. [63.6610(c)]
Results of Initial Performance Tests	Due April 13, 2005 or within 60 days after the performance test, whichever is later, with the Notification of Compliance Status Report [63.6645(f)(2)]
Notification of Compliance Status	No later than 60 days following completion of the performance test [63.6645(f)(1) and (2)]
Subsequent Performance Tests (See Note 5)	Semiannually for all engines complying with the formaldehyde concentration standard and engines with $\geq 5,000$ brake horsepower if complying with the formaldehyde emission reduction standard [63.6615 and Table 3] After a catalyst change, if using NSCR (Non-selective Catalytic Reduction) to comply with Subpart ZZZZ [63.6640(b)]
Semiannual Compliance Reports (See Notes 6 & 7)	No later than July 31 or January 31 , whichever date follows the end of the first calendar half after the compliance date and semiannually on July 31 and January 31 thereafter [63.6650(b)(2) and (4)]

Notes:

- This timeline does not take into account special situations such as compliance extensions.
- New or reconstructed stationary RICE: stationary RICE with a site rating greater than 500 brake horsepower, the construction or reconstruction of which was commenced on or after December 19, 2002. [63.6590(a)(2) and (3)]
- For area sources that become a major source: stationary RICE that commence construction after the date the area source becomes a major source must be in compliance upon startup; stationary RICE that commence construction before the date the area source becomes a major source must be in compliance within 3 years after the area source becomes a major source. [63.6595(b)]
- A performance test must be conducted if complying with emission limitations and operating limitations. An initial performance test is not required if a performance test has been previously conducted and the test meets the requirement in 63.6610(d)(1) through (5).
- After compliance is demonstrated for two consecutive tests, the frequency of the subsequent tests may be reduced to annually. If any subsequent annual tests indicate that a RICE is not in compliance, semiannual performance testing must be resumed. In addition, you must resume semiannual performance testing if you deviate from any of the operating limits [Table 3].
- The initial semiannual report must cover the period beginning on the compliance date 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 [63.6650(b)(1)]. Subsequent reports cover the semiannual reporting period from January 1 through June 30 or July 1 through December 31 [63.6650(b)(3)].
- If you are subject to permitting requirements under Title V (40 CFR Part 70 or 71), you have the option of submitting your semiannual compliance reports according to the schedule established by the permitting authority for the Title V monitoring reports [63.6650(b)(5)].

D. New or Reconstructed CI Stationary RICE Timeline (See Notes 1 & 2)

Event	Timeline
Effective Date	August 16, 2004
Submit Initial Notification	If startup occurs before August 16, 2004, submit notification no later than December 13, 2004 . [63.6645(b)] If startup occurs on or after August 16, 2004, submit it no later than 120 days after startup . [63.6645(c)]
Compliance Date (See Note 3)	August 16, 2004 or upon startup, whichever is later [63.6595(a)(2) and (3)]
Notification of Intent to Conduct a Performance Test	Within 60 days before the performance test is scheduled to begin. [63.6645(e)]
Conduct Performance Test and Other Initial Compliance Demonstrations (See Note 4)	By February 12, 2005 or within 180 days after the startup , whichever is later [63.6610(a) and Table 5]
Results of Initial Performance Tests	Due April 13, 2005 or within 60 days after the performance test, whichever is later, with the Notification of Compliance Status Report [63.6645(f)(2)]
Notification of Compliance Status	No later than 30 days following the completion of the initial compliance demonstration if using a CEMS; OR no later than 60 days following completion of the performance test [63.6645(f)(1) and (2)]
Subsequent Performance Tests (See Note 5)	Semiannually for all engines [63.6615 and Table 3] After a catalyst change, if using oxidation catalyst to comply with Subpart ZZZZ [63.6640(b)]
Semiannual Compliance Reports (See Notes 6 & 7)	No later than July 31 or January 31 , whichever date follows the end of the first calendar half after the compliance date and semiannually on July 31 and January 31 thereafter [63.6650(b)(2) and (4)]

Notes:

1. This timeline does not take into account special situations such as compliance extensions.
2. New or reconstructed stationary RICE: stationary RICE with a site rating greater than 500 brake horsepower, the construction or reconstruction of which was commenced on or after December 19, 2002. [63.6590(a)(2) and (3)]
3. For area sources that become a major source: stationary RICE that commence construction after the date the area source becomes a major source must be in compliance upon startup; stationary RICE that commence construction before the date the area source becomes a major source must be in compliance within 3 years after the area source becomes a major source. [63.6595(b)]
4. A performance test must be conducted if you are not using a CEMS to comply with emission limitations and operating limitations. If you are using CEMS, you must conduct an initial performance evaluation and relative accuracy test audit of each CEMS and use the first 4-hour period of data after a successful validation of the CEMS to demonstrate initial compliance. An initial performance test is not required if a performance test has been previously conducted and the test meets the requirements in 63.6610(d)(1) through (5).
5. After compliance is demonstrated for two consecutive tests, the frequency of the subsequent tests may be reduced to annually. If any subsequent annual tests indicate that a RICE is not in compliance, semiannual performance testing must be resumed. In addition, you must resume semiannual performance testing if you deviate from any of the operating limits [Table 3].
6. The initial semiannual report must cover the period beginning on the compliance date 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 [63.6650(b)(1)]. Subsequent reports cover the semiannual reporting period from January 1 through June 30 or July 1 through December 31 [63.6650(b)(3)].
7. If you are subject to permitting requirements under Title V (40 CFR Part 70 or 71), you have the option of submitting your semiannual compliance reports according to the schedule established by the permitting authority for Title V monitoring reports [63.6650(b)(5)].

E. Existing Spark Ignition 4-Stroke Rich Burn Engines Timeline (See Notes 1 & 2)

Event	Timeline
Effective Date	August 16, 2004
Submit Initial Notification	No later than December 13, 2004 . [63.6645(b)]
Compliance Date	No later than June 15, 2007 [63.6595(a)]
Notification of Intent to Conduct a Performance Test	Within 60 days before the performance test is scheduled to begin, but no later than October 13, 2007 [63.6645(e)]
Conduct Performance Test and Other Initial Compliance Demonstrations	No later than December 12, 2007 [63.6610(a) and Table 5]
Results of Initial Performance Tests	No later than February 10, 2008 , with the Notification of Compliance Status Report [63.6645(f)(2)]
Notification of Compliance Status	No later than February 10, 2008 [63.6645(f)(1) and (2)]
Subsequent Performance Tests	Semiannually for all engines complying with the formaldehyde concentration standard and for engines $\geq 5,000$ brake horsepower complying with the formaldehyde emission reduction standard [63.6615 and Table 3] After a catalyst change, if using NSCR (Non-selective catalytic reduction) to comply with Subpart ZZZZ [63.6640(b)]
Semiannual Compliance Reports	July 31, 2007 and semiannually on July 31 and January 31 thereafter [63.6650(b)(2) and (4)]

Notes:

1. This timeline does not take into account special situations such as compliance extensions.
2. Existing 4SRB: : stationary RICE with a site rating greater than 500 brake horsepower, the construction or reconstruction of which was commenced on or after December 19, 2002. [63.6590(a)(1)]
3. For area sources that become a major source: stationary RICE that commence construction after the date the area source becomes a major source must be in compliance upon startup; stationary RICE that commence construction before the date the area source becomes a major source must be in compliance within 3 years after the area source becomes a major source. [63.6595(b)]
4. A performance test must be conducted if complying with emission limitations and operating limitations. An initial performance test is not required if a performance test has been previously conducted and the test meets the requirements in 63.6610(d)(1) through (5).
5. After compliance is demonstrated for two consecutive tests, the frequency of the subsequent tests may be reduced to annually. If any subsequent annual tests indicate that a RICE is not in compliance, semiannual performance testing must be resumed. In addition, you must resume semiannual performance testing if you deviate from any of the operating limits [Table 3].
6. The initial semiannual report must cover the period beginning on the compliance date 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 [63.6650(b)(1)]. Subsequent reports cover the semiannual reporting period from January 1 through June 30 or July 1 through December 31 [63.6650(b)(3)].
7. If you are subject to permitting requirements under Title V (40 CFR Part 70 or 71), you have the option of submitting your semiannual compliance reports according to the schedule established by the permitting authority for Title V monitoring reports [63.6650(b)(5)].

F. New or Reconstructed Stationary Rice with Limited Requirements Timeline (See Notes 1 & 2)

This timeline only applies to new or reconstructed stationary RICE with limited requirements under 63.6590(b): emergency stationary RICE, limited use stationary RICE, and stationary RICE with combust landfill or digester gas equivalent to 10% or more of the gross heat input on an annual basis (referred to as landfill/digester stationary RICE).

Event	Timeline
Effective Date	August 16, 2004
Submit Initial Notification	<p>If startup occurs before August 16, 2004, no later than December 13, 2004. [63.6645(b)]</p> <p>If startup occurs on or after August 16, 2004, no later than 120 days after startup. [63.6645(c)]</p>
Annual Fuel Reports (Landfill/digester Stationary RICE only) (See Note 3)	No later than July 31 or January 31 , whichever date follows the end of the first calendar half after the compliance date and annually on July 31 or January 31 thereafter. [63.6650(b)(2) and (4) and Table 7]

Notes:

1. This timeline does not take into account special situations such as compliance extensions.
2. New or reconstructed stationary RICE: stationary RICE with a site rating greater than 500 brake horsepower, the construction or reconstruction of which was commenced on or after December 19, 2002. [63.6590(a)(2) and (3)].
3. If you are subject to permitting requirements under Title V (40 CFR Part 70 or 71), you have the option of submitting your annual reports according to the Title V permitting schedule established by the permitting authority. [63.6650(b)(5)]

XI. Subpart ZZZ Table 8 – Applicability of General Provisions to Subpart ZZZZ

Note: Note as stated in 63.6665, facilities must comply with applicable general provisions

General Provision Citation	Subject of Citation	Applies to Subpart?	Explanation
63.1	General applicability of the general provisions	Yes	
63.2	Definitions	Yes	Additional items 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 & reconstructed sources	Yes	
63.6 (b) (5)	Notification	Yes	
63.6 (b) (6)	[Reserved]		
63.6 (b) (7)	Compliance dates for new & 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) (1)	Operation and Maintenance	Yes	
63.6 (e) (2)	[Reserved]		
63.6 (e) (3)	Startup, shutdown and malfunction plan	Yes	
63.6 (f) (1)	Applicability of standards except during startup, shutdown, malfunction (SSM)	Yes	
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(VE) standards	No	Subpart ZZZ does not contain Opacity or VE standards
63.6 (i)	Compliance extension procedures and criteria	Yes	
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
63.7 (a) (3)	CAA Section 114 authority	Yes	
63.7 (b) (1)	Notification of performance test	Yes	
63.7 (b) (2)	Notification of rescheduling	Yes	
63.7 (c)	Quality assurance/test plan	Yes	
63.7 (d)	Testing facilities	Yes	
63.7 (e) (1)	Conditions for conducting performance tests	Yes	
63.7 (e) (2)	Conduct of performance tests and reduction 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 CAA.	Yes	
63.7 (f)	Alternative test method provisions	Yes	
63.7 (g)	Performance test data analysis, recordkeeping, reporting	Yes	
63.7 (h)	Waiver of tests	Yes	
63.8 (a) (1)	Applicability of monitoring requirements	Yes	Subpart ZZZZ contains specific monitoring requirements 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 multiple monitoring systems	Yes	
63.8 (c) (1)	Monitoring system and 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 & maintenance requirements	Yes	
63.8 (c) (2) – (3)	Monitoring system installation	Yes	
63.8 (c) (4)	Continuous monitoring system (CMS) requirements COMS = Continuous Opacity Monitoring System	Yes	Except that Subpart ZZZZ does not require COMS
63.8 (c) (5)	COMS minimum procedures	No	
63.8 (c) (6) – (8)	CMS requirements	Yes	Subpart ZZZZ does not require COMS

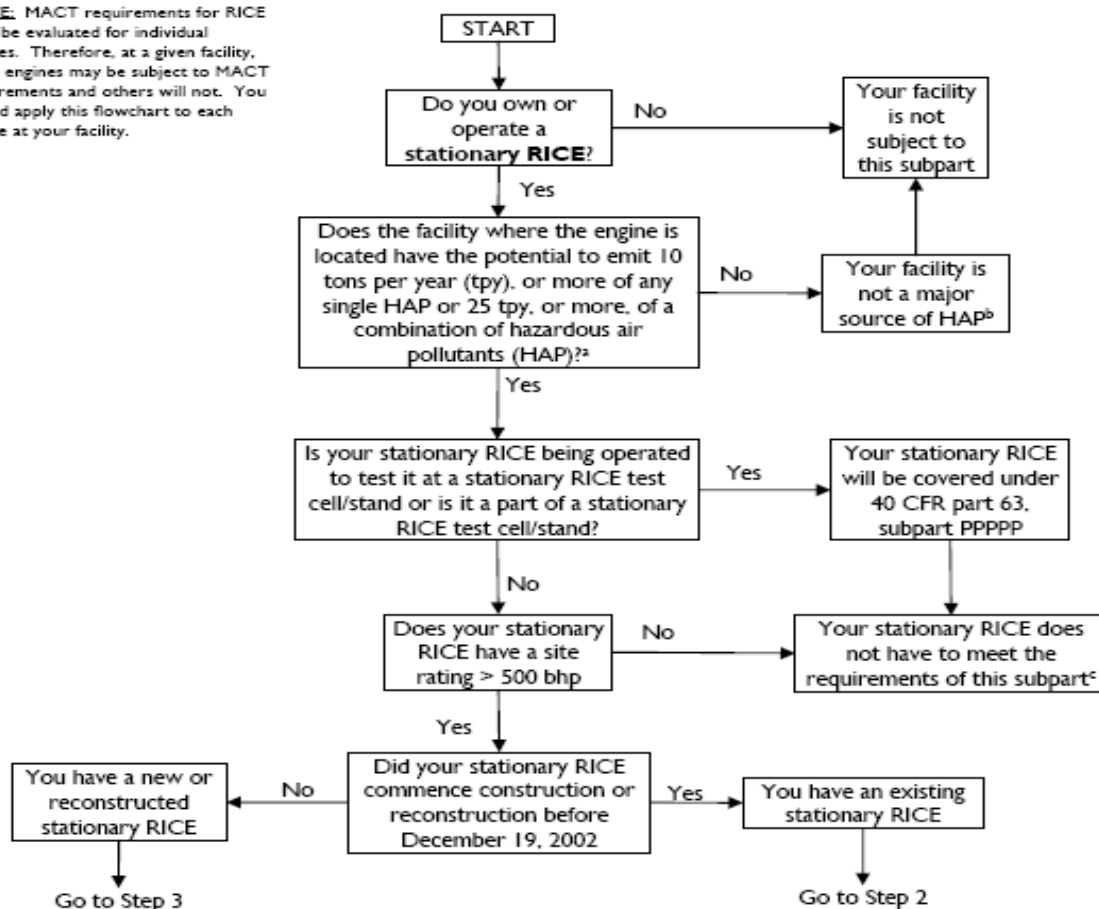
General Provision Citation	Subject of Citation	Applies to Subpart?	Explanation
63.8 (d)	CMS quality control	Yes	
63.8 (e)	CMS performance evaluation	Yes	Except for 63.8 (e) (5) (ii), which applies to COMS
63.8 (f) (1) –(5)	Alternative monitoring method	Yes	
63.8 (f) (6)	Alternative to relative accuracy test	Yes	
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
63.9 (c)	Request for compliance extension	Yes	
63.9 (d)	Notification of special compliance requirements for new sources	Yes	
63.9 (e)	Notification of performance test	Yes	
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	
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
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
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)	Records retention	Yes	
63.10 (b) (2) (i) – (v)	Records related to SSM	Yes	
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	Yes	
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	

XII. RICE NESHAP Applicability Flow Chart

Source: US EPA Information Transfer and Program Integration Division – Office of Air Quality Planning and Standards – MACT Compliance Handbook for the RICE NESHAP (July 31, 2004).

Applicability Flowchart for National Emission Standards for Hazardous Air Pollutants (NESHAP) for Reciprocating Internal Combustion Engines (RICE) 40 CFR part 63, subpart ZZZZ

NOTE: MACT requirements for RICE must be evaluated for individual engines. Therefore, at a given facility, some engines may be subject to MACT requirements and others will not. You should apply this flowchart to each engine at your facility.



^a Special non-aggregation provisions apply to oil and natural gas production and natural gas transmission and storage facilities – refer to the definitions for “Major source” and “potential to emit” in subpart ZZZZ.

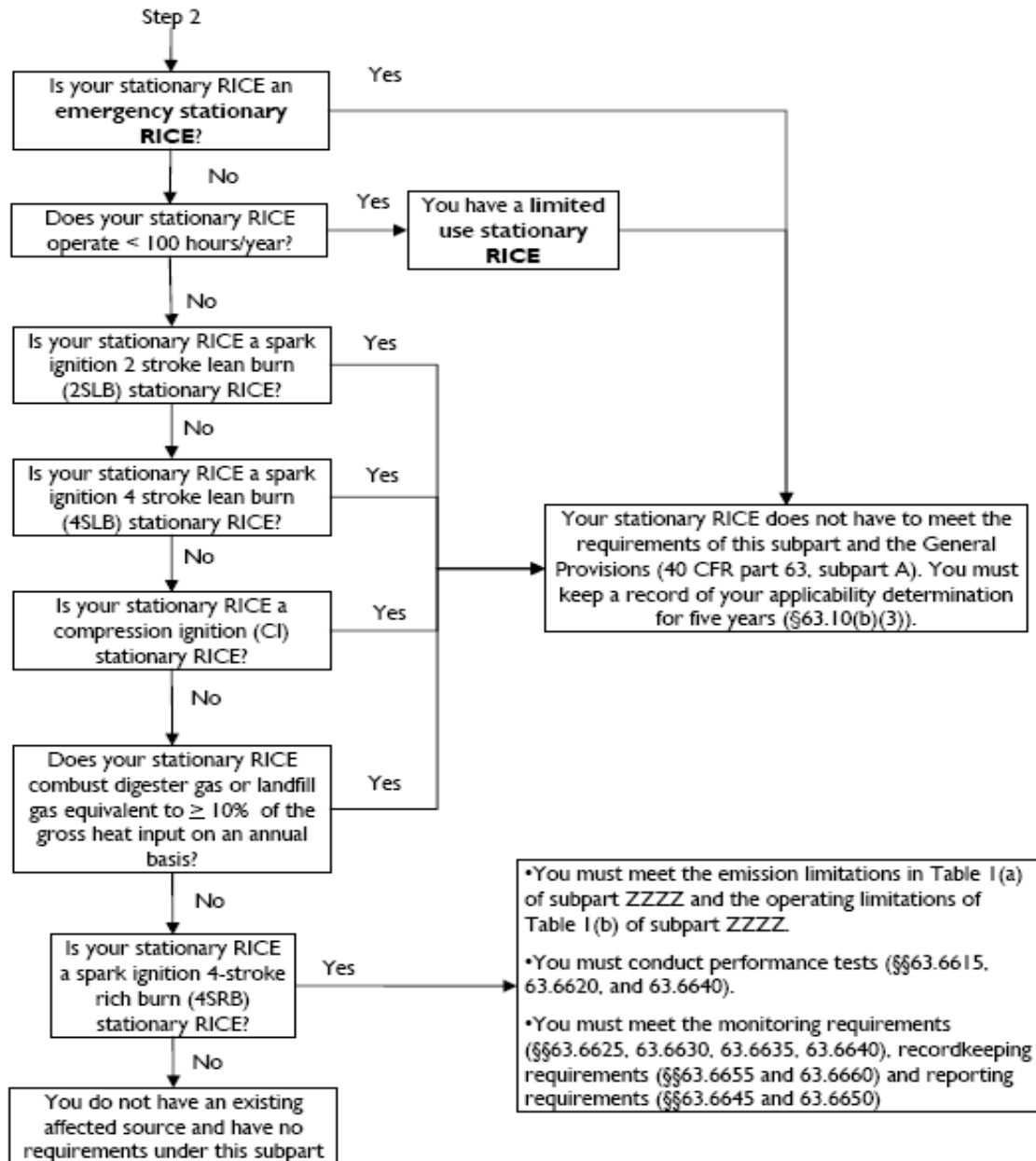
^b If your area source increases emissions it may become a major source, and those facilities will become subject. EPA will conduct a future rulemaking for engines located at area sources— proposal expected 10/31/06 and promulgation expected 12/20/07.

^c Engines less than or equal to 500 bhp and located at major-source facilities will be addressed by EPA in a future rulemaking – proposal expected 10/31/06 and promulgation expected 12/20/07.

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NESHAP for Existing Stationary RICE

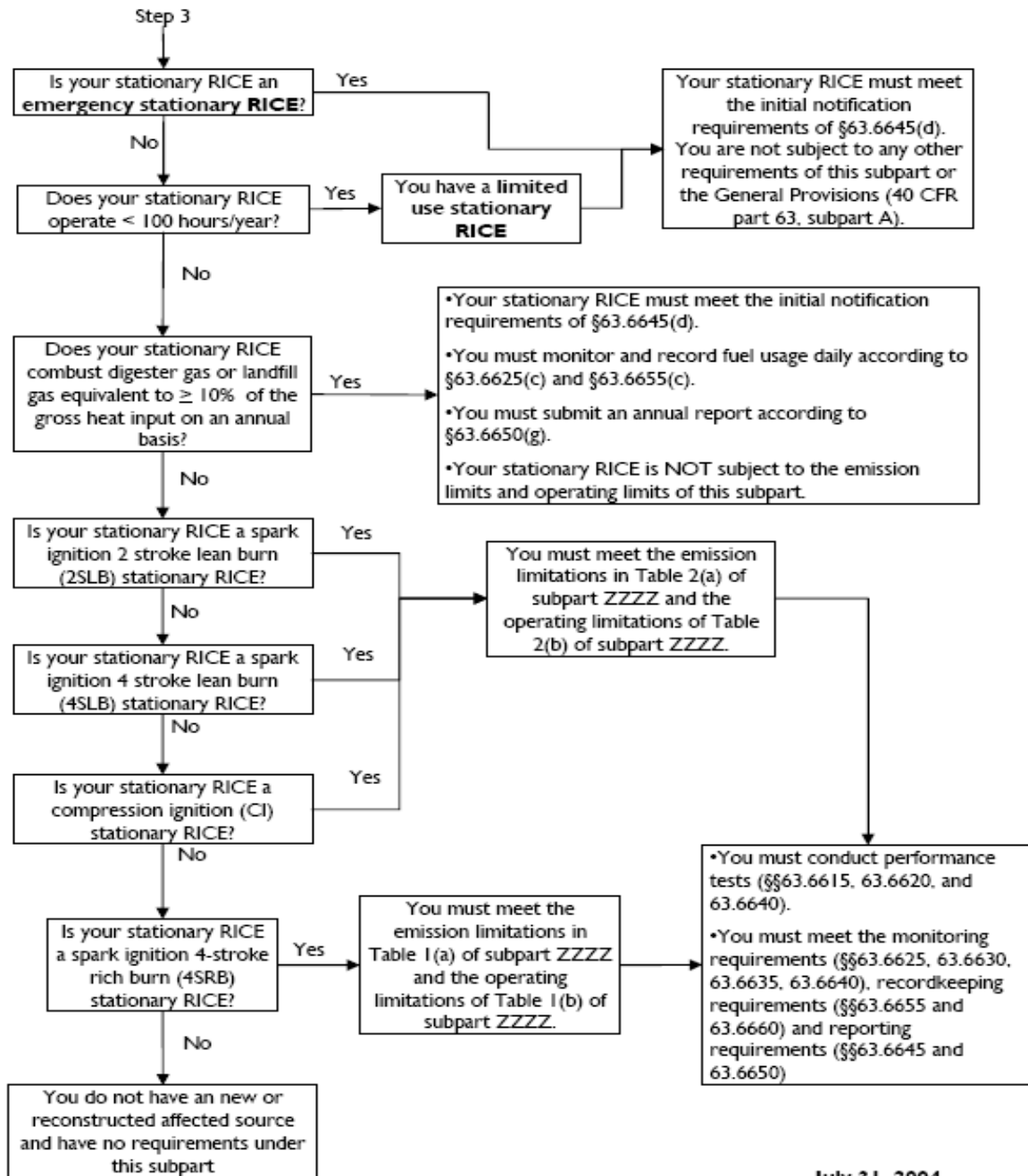
NOTE: This page only refers to requirements for existing stationary RICE. If your stationary RICE is new or reconstructed, refer to step 3 of this flowchart.



July 31, 2004

NESHAP for New or Reconstructed Stationary RICE

NOTE: This page only refers to requirements for new or reconstructed stationary RICE. If your stationary RICE is existing, refer to step 2 of this flowchart.



July 31, 2004

XIII. RICE MACT Startup, Shutdown and Malfunction (SSM) Plan

1. What are the Startup, Shutdown, and Malfunction (SSM) Requirements?

You are required to operate your oxidation catalyst or other control device as well as any CPMS or CEMS at all times, including periods of startup, shutdown, and malfunction (SSM), in a safe manner and according to good air pollution control practices to minimize emissions.

A startup is defined as “the setting in operation of an affected source or portion of an affected source for any purpose.” [§63.2]

A shutdown is defined as “the cessation of operation of an affected source or portion of an affected source for any purpose.” [§63.2]

A malfunction is defined as “any sudden, infrequent, and not reasonably preventable failure of air pollution control and monitoring 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.” [§63.2]

2. What are my requirements during SSM events?

You are responsible for reducing emissions to the greatest extent possible and maintain safety and good air control practices whenever there is a period of SSM. This does not mean that you are required to achieve the emission levels required under the RICE MACT during SSM events if it means that you would not be operating in a safe manner and with good air pollution practices nor are you required to make any further efforts to reduce emissions if you are meeting the emission levels required by the RICE MACT.

3. Startup, Shutdown and Malfunction Plan

You are required to develop and implement a written startup, shutdown, and malfunction (SSM) plan that describes, in detail, procedures for operating and maintaining each stationary RICE during periods of SSM, and a program of corrective action for malfunctioning process and air pollution control and monitoring equipment (i.e., oxidation catalyst or other control device, pressure drop monitoring equipment, and CPMS or CEMS). You must develop this plan by August 16, 2004 if construction or reconstruction of your new or reconstructed stationary RICE commenced on or after December 19, 2002 but before August 16, 2004. If construction or reconstruction of your new or reconstructed stationary RICE began after August 16, 2004, you must have your SSM plan developed by startup [§63.6(e)(3)(i)].

During periods of SSM, you must operate and maintain your stationary RICE (including each oxidation catalyst or other control device and monitoring equipment) in accordance with the procedures specified in your SSM plan [§63.6(e)(3)(ii)].

4. What must be included in my SSM plan?

EPA does not specify the required elements of a SSM plan, but the SSM plan must address the following [§63.6(e)(3)(i)(A) through (C)]:

1. Ensure that, at all times, you operate and maintain each stationary RICE, including your oxidation catalyst or other control device and monitoring equipment, in a manner which satisfies your general duty to minimize emissions;
2. Ensure that you are prepared to correct malfunctions as soon as practicable after their

- occurrence in order to minimize excess emissions of hazardous air pollutants; and
3. Reduce the reporting burden associated with periods of startup, shutdown, and malfunction (including corrective action taken to restore malfunctioning process and air pollution control equipment to its normal or usual manner of operation).

To develop your SSM plan, you may use your standard operating procedures (SOP) manual, or an Occupational Safety and Health Administration (OSHA) or other plan, provided the alternative plans meet the SSM plan requirements and are made available for inspection or submitted when requested by EPA or the delegated authority [§63.6(e)(3)(vi)].

5. When may the SSM plan be revised?

You may periodically revise the SSM plan for your stationary RICE as necessary to satisfy the requirements of 40 CFR Part 63 or to reflect changes in equipment or procedures at the affected source. Unless EPA or your permitting authority provides otherwise, you may make such revisions to the startup, shutdown, and malfunction plan without prior approval by EPA or the permitting authority [§63.6(e)(3)(viii)]. However, each revision to a SSM plan must be reported in the semiannual compliance report (see section 7.8.6).

If the SSM plan fails to address or inadequately addresses an event that meets the characteristics of a malfunction but was not included in the SSM plan at the time you developed the plan, you must revise the SSM plan within 45 days after the event to include detailed procedures for operating and maintaining the source during similar malfunction events and a program of corrective action for similar malfunctions of process or air pollution control and monitoring equipment [§63.6(e)(3)(viii)].

In the event that you make any revision to the SSM plan which alters the scope of the activities which are deemed to be an SSM, or otherwise modify the applicability of any emission limit or other RICE MACT requirement, the revised plan may not take effect until after you have provided a written notice describing the revision to your permitting authority [§63.6(e)(3)(viii)].

If EPA or the delegated authority determines that you are not operating and maintaining your stationary RICE (including the oxidation catalyst or other control device and monitoring equipment) in such a way that is consistent with safety and good air pollution control practices [§63.6(e)(1)(i)], EPA or the delegated authority may require you to make changes to the SSM plan for that stationary RICE. EPA or the delegated authority must require appropriate revisions to a SSM plan, if EPA or the delegated authority finds that the plan [§63.6(e)(3)(vii)]:

- Does not address a SSM event that has occurred;
- Fails to provide for the operation of the stationary RICE (including the oxidation catalyst or other control device and monitoring equipment) during a SSM event in a manner consistent with the general duty to minimize emissions established by §63.6(e)(1)(i);
- Does not provide adequate procedures for correcting malfunctioning process and/or air pollution control and monitoring equipment as quickly as practicable; or
- Includes an event that does not meet the definition of startup, shutdown, or malfunction listed in §63.2.

The title V permit for a stationary RICE must require that you adopt a SSM plan which conforms to part 63, and that you operate and maintain the stationary in accordance with the procedures specified in the current SSM plan. However, any revisions made to the SSM plan as specified above do not constitute permit revisions under part 70 or part 71 of this chapter. Moreover, none of the procedures specified by the SSM plan for an affected source shall be deemed to fall within the permit shield provision in section 504(f) of the Act [§63.6(e)(3)(ix)].

6. What are my requirements for maintaining my SSM plan?

You must maintain a current SSM plan and must make the plan available upon request for inspection and copying by the EPA or delegated authority. In addition, if you subsequently revise your SSM plan (see section 7.6.2.2), you must keep each previous (i.e., superseded) version of the SSM plan, and must make each such previous version available for inspection and copying by the EPA or the delegated authority for 5 years after revision of the plan. If at any time after adoption of an SSM plan the stationary RICE ceases operation or is otherwise no longer subject to the RICE MACT, you must keep a copy of the most recent plan for 5 years from the date the stationary RICE ceases operation or is no longer subject the RICE MACT and must make the plan available upon request for inspection and copying by EPA or the delegated authority [§63.6(e)(3)(v)].

EPA or the delegated authority may at any time request in writing that you submit a copy of any SSM plan (or a portion thereof). Upon receipt of such a request, you must promptly submit a copy of the requested plan (or a portion thereof) to EPA or the delegated authority. EPA or the delegated authority must request that you submit a particular SSM plan (or a portion thereof) whenever a member of the public submits a specific and reasonable request to examine or to receive a copy of that plan or portion of a plan. You may elect to submit the required copy of any SSM plan in an electronic format. If you claim that any portion of such a SSM plan is confidential business information entitled to protection from disclosure under section 114(c) of the Act or 40 CFR 2.301, the material which is claimed as confidential must be clearly designated in the submission. [§63.6(e)(3)(v)]

7. How do I demonstrate I am following my SSM plan?

When you take actions during a period of SSM (including actions taken to correct a malfunction) that are consistent with the procedures specified in the SSM plan developed for your stationary RICE, you must do the following [§63.6(e)(iii)]:

- You must keep records for that event which demonstrate that the procedures specified in the plan were followed. These records may take the form of a “checklist,” or other form of recordkeeping that confirms that you followed the procedures defined in your SSM plan for that event.
- You must keep the following records of these events [§63.10(b)(2)]:
 - Records of the occurrence and duration of each startup, shutdown, or malfunction of operation
 - Records of the occurrence and duration of each malfunction of the oxidation catalyst or other control device and monitoring equipment
- You must confirm that actions taken during the relevant reporting period during periods of SSM were consistent with the startup, shutdown and malfunction plan developed for each stationary RICE in the semiannual (or more frequent) startup, shutdown, and malfunction report required in §63.10(d)(5). Note that this information may also be incorporated into your semiannual compliance report (see section 7.8.6).

If you take an action during a startup, shutdown, or malfunction (including an action taken to correct a malfunction) that is not consistent with the procedures specified in your stationary RICE's startup, shutdown, and malfunction plan, and the stationary RICE exceeds the applicable emission limitation, then you must record the actions taken for that event and must report such actions within 2 working days after commencing actions inconsistent with the plan, followed by a letter within 7 working days after the end of the event, in accordance with §63.10(d)(5) (unless the owner or operator makes alternative reporting arrangements, in advance, with the Administrator) [§63.6(e)(3)(iv)].