

FG{ID}

FLEXIBLE GROUP CONDITIONS**40 CFR Part 63, Subpart YYYY – Stationary Combustion Turbine(s) equipped with oxidation catalyst covers major sources of HAPs**

Red text identifies options. Select the option that applies to the source and change the text to black. Delete red text that does not apply and renumber conditions if necessary.

Blue text is guidance or notes on the use of the template. Delete all blue text prior to issuing the final permit or submitting it with a permit application.

This template is only for stationary combustion turbine(s) equipped with oxidation catalyst. If the stationary combustion turbine is not equipped with an oxidation catalyst, you must petition the USEPA for operating limitations.

If this template is being used for an ROP Reopening or Renewal, and the MACT conditions were established in a PTI, the appropriate footnotes which reference enforceability must be added to each applicable condition in the template.

This template is for any new or reconstructed stationary combustion turbine located at a major source of HAP emissions.

1. Existing stationary combustion turbine. A stationary combustion turbine is existing if commenced construction or reconstruction of the stationary combustion turbine on or before January 14, 2003. A change in ownership of an existing stationary combustion turbine does not make that stationary combustion turbine a new or reconstructed stationary combustion turbine.
2. New stationary combustion turbine. A stationary combustion turbine is new if commenced construction of the stationary combustion turbine after January 14, 2003.
3. Reconstructed stationary combustion turbine. A stationary combustion turbine is reconstructed if you meet the definition of reconstruction in 40 CFR 63.2 and reconstruction is commenced after January 14, 2003.

Per 40 CFR 63.6090(b)(4), existing stationary combustion turbines in all subcategories do not have to meet the requirements of 40 CFR Part 63, Subpart YYYY. No initial notification is necessary for any existing stationary combustion turbine, even if a new or reconstructed turbine in the same category would require an initial notification. Duct burners and waste heat recovery units are considered steam generating units and are not covered under 40 CFR Part 63, Subpart YYYY per 63.6092.

DESCRIPTION

40 CFR Part 63, Subpart YYYY requirements for each **new / reconstructed (choose one)** stationary combustion turbine which is a **lean premix gas-fired stationary combustion turbine, a lean premix oil-fired stationary combustion turbine, a diffusion flame gas-fired stationary combustion turbine, or a diffusion flame oil-fired stationary combustion turbine (choose at least one)** with a rated peak power output of equal to or greater than 1.0 megawatt (MW) and equipped with an oxidation catalyst located at a major source of HAP emissions. Stationary combustion turbine means all equipment, including but not limited to the turbine, the fuel, air, lubrication and exhaust gas systems, control systems (except emissions control equipment), and any ancillary components and sub-components comprising any simple cycle stationary combustion turbine, any regenerative/recuperative cycle stationary combustion turbine, the combustion turbine portion of any stationary cogeneration cycle combustion system, or the combustion turbine portion of any stationary combined cycle steam/electric generating system. **{May add specifics for the Emission Unit(s) in this flexible group.}**

Emission Unit: **{Enter Emission Units}**

POLLUTION CONTROL EQUIPMENT

{Enter specific control equipment used by the facility or NA}

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/Operating Scenario	Equipment	Monitoring/Testing Method	Underlying Applicable Requirements
1. Formaldehyde	91 ppbvd or less at 15-percent O ₂	Hourly / at all times except during turbine startup*	List each applicable emission unit in FG{ID}	SC V.1, SC VI.2	40 CFR 63.6100 40 CFR 63 Subpart YYYY, Table 1

* Startup begins at the first firing of fuel in the stationary combustion turbine. For simple cycle turbines, startup ends when the stationary combustion turbine has reached stable operation or after 1 hour, whichever is less. For combined cycle turbines, startup ends when the stationary combustion turbine has reached stable operation or after 3 hours, whichever is less.

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee must operate and maintain each stationary combustion turbine, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require the permittee to make any further efforts to reduce emissions if levels required by the applicable standard have been achieved. Determination of whether a source is operating in compliance with operation and maintenance requirements will be based on information available to the AQD which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. **(40 CFR 63.6105(c))**

Use if a continuous monitoring system (CMS) is required.

2. The permittee must develop and implement a continuous monitoring system (CMS) quality control program according to 40 CFR 63.8(d)(1) through (2). Each quality control program shall include, at a minimum, a written protocol that describes procedures for each of the following operations:
 - a. Initial and any subsequent calibration of the CMS; **(40 CFR 63.8(d)(2)(i))**
 - b. Determination and adjustment of the calibration drift of the CMS; **(40 CFR 63.8(d)(2)(ii))**
 - c. Preventive maintenance of the CMS, including spare parts inventory; **(40 CFR 63.8(d)(2)(iii))**
 - d. Data recording, calculations, and reporting; **(40 CFR 63.8(d)(2)(iv))**
 - e. Accuracy audit procedures, including sampling and analysis methods; and **(40 CFR 63.8(d)(2)(v))**
 - f. Program of corrective action for a malfunctioning CMS. **(40 CFR 63.8(d)(2)(vi))**

The permittee must keep these written procedures on record for the life of the affected source or until the affected source is no longer subject to the provisions of this part, to be made available for inspection, upon request, by the AQD. If the performance evaluation plan is revised, the permittee shall keep previous (i.e., superseded) versions of the performance evaluation plan on record to be made available for inspection, upon request, by the AQD. **(40 CFR 63.6125(e))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee using an oxidation catalyst must continuously monitor and maintain the 4-hour rolling average of the catalyst inlet temperature within the range suggested by the catalyst manufacturer. The permittee is not required to use the catalyst inlet temperature data that is recorded during engine startup in the calculations of the 4-hour rolling average catalyst inlet temperature. **(40 CFR 63.6100, 40 CFR 63.6125(a), 40 CFR 63.6140, 40 CFR Part 63, Subpart YYYY, Tables 2.1 and 5.1)**

OPTIONAL – Use if fire any quantity of distillate oil.

2. The permittee operating a lean premix gas-fired stationary combustion turbine or a diffusion flame gas-fired stationary combustion turbine, and using any quantity of distillate oil to fire any new or existing stationary combustion turbine must monitor and record the distillate oil usage daily for all stationary combustion turbines located at the major source with a non-resettable hour meter to measure the number of hours that distillate oil is fired. **(40 CFR 63.6125(d))**

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3. Except for monitor malfunctions, associated repairs, and required quality assurance or quality control activities (including, as applicable, calibration checks and required zero and span adjustments of the monitoring system), the permittee must conduct all parametric monitoring at all times the stationary combustion turbine is operating. Do not use data recorded during monitor malfunctions, associated repairs, and required quality assurance or quality control activities for meeting the requirements of 40 CFR Part 63, Subpart YYYY, including data averages and calculations. The permittee must use all the data collected during all other periods in assessing the performance of the control device or in assessing emissions from each stationary combustion turbine. **(40 CFR 63.6135(a) and (b))**

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

Permit staff – [Change above UAR to Rule 201\(3\) if using in a PTI.](#)

1. The permittee shall verify formaldehyde emission rates from {EU / FG / PORTION OF THE EU} by testing at owner's expense, in accordance with the Department requirements. Testing shall be performed using approved EPA Methods listed in:

Pollutant	Test Method Reference
Formaldehyde	40 CFR Part 63, Subpart YYYY, Table 3

Testing must be conducted within 10 percent of 100-percent load. Performance tests shall be conducted under such conditions based on representative performance of the affected source for the period being tested. The permittee must record the process information that is necessary to document operating conditions during the test and include in such record an explanation to support that such conditions represent normal operation. No less than 30 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. The AQD must approve the final plan prior to testing, including any modifications to the method in the test protocol that are proposed after initial submittal. The permittee must submit a complete report of the test results to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test. **(R 336.1213(3), R 336.2001, R 336.2003, R 336.2004, 40 CFR 63.6120(a), (c), and (d), 40 CFR Part 63, Subpart YYYY, Table 3)**

2. The permittee shall verify the formaldehyde emission rate from {EU / FG / PORTION OF THE EU} on an annual basis. **(R 336.1213(3), R 336.2001, R 336.2003, R 336.2004, 40 CFR Part 63, Subpart YYYY, Table 3.a)**
3. The permittee must submit a Notification of Intent to conduct a performance test at least 60 days before the performance test is scheduled to begin. The permittee shall notify the AQD Technical Programs Unit Supervisor and the District Supervisor. **(R 336.1213(3), 40 CFR 63.9(e), 40 CFR 63.6145(e) {initial test})**

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1213(3)(b)(ii))**

Permit staff – [Change above UAR to Rule 201\(3\) if using in a PTI.](#)

1. For each combustion turbine in FG{ID}, the permittee must keep the records described as follows: **(40 CFR 63.6155(a))**
 - a. A copy of each notification and report submitted to comply with 40 CFR Part 63, Subpart YYYY, including all documentation supporting any Initial Notification or Notification of Compliance Status that was submitted, according to the requirements in 40 CFR 63.10(b)(2)(xiv). **(40 CFR 63.6155(a)(1))**
 - b. Records of performance tests and performance evaluations as required in 40 CFR 63.10(b)(2)(viii). **(40 CFR 63.6155(a)(2))**

- c. Records of all maintenance on the air pollution control equipment as required in 40 CFR 63.10(b)(2)(iii). **(40 CFR 63.6155(a)(5))**
 - d. Records of the date, time, and duration of each startup period, recording the periods when the affected source was subject to the standard applicable to startup. **(40 CFR 63.6155(a)(6))**
 - e. Record the number of deviations. For each deviation, record the date, time, cause, and duration of the deviation. **(40 CFR 63.6155(a)(7)(i))**
 - f. For each deviation, record and retain a list of the affected sources or equipment, an estimate of the quantity of each regulated pollutant emitted over any emission limit and a description of the method used to estimate the emissions. **(40 CFR 63.6155(a)(7)(ii))**
 - g. Record actions taken to minimize emissions in accordance with 40 CFR 63.6105(c) (SC III.1), and any corrective actions taken to return the affected unit to its normal or usual manner of operation. **(40 CFR 63.6155(a)(7)(iii))**
2. For each combustion turbine in FG{ID}, the permittee must keep records to demonstrate continuous compliance with the operating limitations required in Table 5 of 40 CFR Part 63, Subpart YYYY as follows: **(40 CFR 63.6155(c))**
- a. Monitor and record the catalyst inlet temperature and reduce these data to 4-hour rolling averages; **(40 CFR Part 63, Subpart YYYY, Table 5.1)**
 - b. Records demonstrating that maintaining the 4-hour rolling average of the inlet temperature within the range suggested by the catalyst manufacturer. **(40 CFR Part 63, Subpart YYYY, Table 5.1)**

OPTIONAL – Use if fire any quantity of distillate oil.

- 3. The permittee must keep records of the daily distillate oil fuel usage as recorded by the hour meter for all stationary combustion turbines located at the major source. **(R 336.1213(3), 40 CFR 63.6155(b))**

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- 4. The permittee must maintain all applicable records in such a manner that can be readily accessed and are suitable for inspection according to 40 CFR 63.10(b)(1). **(40 CFR 63.6160(a))**
- 5. As specified in 40 CFR 63.10(b)(1), the permittee must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. **(40 CFR 63.6160(b))**
- 6. The permittee must retain records of the most recent 2 years on site or records must be accessible on site. Records of the remaining 3 years may be retained off site. **(40 CFR 63.6160(c))**

VII. REPORTING

Permit Staff – SC VII.1, 2, and 3, references to Rule 213 are ROP only. Remove before putting into a PTI. Renumber as appropriate.

- 1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. **(R 336.1213(3)(c)(ii))**
- 2. Semiannual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be received by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. **(R 336.1213(3)(c)(i))**
- 3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be received by March 15 for the previous calendar year. **(R 336.1213(4)(c))**
- 4. For each performance test required to demonstrate compliance with the emission limitation for formaldehyde, the permittee must submit the Notification of Compliance Status, including the performance test results, before the close of business on the 60th calendar day following the completion of the performance test. The permittee shall submit any performance test reports to the AQD Technical Programs Unit and the appropriate District Office, in a format approved by the AQD. **(R 336.1213(3)(c), R 336.2001(5), 40 CFR 63.9(h)(2)(ii), 40 CFR 63.6145(f))**
- 5. The permittee must submit a semiannual compliance report according to Table 6 of 40 CFR Part 63, Subpart YYYY to the AQD per SC VII.2. The semiannual compliance report must contain the information described in

40 CFR 63.6150(a)(1) through (5) and the excess emissions and monitoring system performance reports as follows: **(40 CFR 63.6150(a))**

- a. Company name and address. **(40 CFR 63.6150(a)(1))**
- b. Statement by a responsible official, with that official's name, title, and signature, certifying the accuracy of the content of the report. **(40 CFR 63.6150(a)(2))**
- c. Date of report and beginning and ending dates of the reporting period. **(40 CFR 63.6150(a)(3))**
- d. Report each deviation as follows:
 - i. Report the number of deviations. For each instance, report the start date, start time, duration, and cause of each deviation, and the corrective action taken. **(40 CFR 63.6150(a)(5)(i))**
 - ii. For each deviation, the report must include a list of the affected sources or equipment, an estimate of the quantity of each regulated pollutant emitted over any emission limit, a description of the method used to estimate the emissions. **(40 CFR 63.6150(a)(5)(ii))**
 - iii. Information on the number, duration, and cause for monitor downtime incidents (including unknown cause, if applicable, other than downtime associated with zero and span and other daily calibration checks), as applicable, and the corrective action taken. **(40 CFR 63.6150(a)(5)(iii))**
 - iv. Report the total operating time of the affected source during the reporting period. **(40 CFR 63.6150(a)(5)(iv))**

OPTIONAL – Use if fire any quantity of distillate oil.

6. The permittee must submit an annual report according to Table 6 of 40 CFR Part 63, Subpart YYYY. The report must contain the data specified in 40 CFR 63.6150(e)(1) through (3) as follows: **(40 CFR 63.6150(e))**
 - a. The number of hours distillate oil was fired by each new or existing stationary combustion turbine during the reporting period. **(40 CFR 63.6150(e)(1))**
 - b. Any problems or errors suspected with the meters. **(40 CFR 63.6150(e)(3))**

ALWAYS INCLUDE

7. The permittee must submit the following to the USEPA via the Compliance and Emissions Data Reporting Interface (CEDRI):
 - a. Within 60 days after the date of completing each performance test required by 40 CFR Part 63, Subpart YYYY, the permittee must submit the results of the performance test (as specified in 40 CFR 63.6145(f)) following the procedures specified: **(40 CFR 63.6150(f))**
 - i. For data collected using test methods supported by the USEPA's Electronic Reporting Tool (ERT) as listed on the USEPA's ERT website (<https://www.epa.gov/electronic-reporting-air-emissions/electronic-reporting-tool-ert>), submit the results of the performance test via CEDRI, which can be accessed through the USEPA's Central Data Exchange (CDX) (<https://cdx.epa.gov/>). The data must be submitted in a file format generated through the use of the USEPA's ERT. Alternatively, submit an electronic file consistent with the extensible markup language (XML) schema listed on the USEPA's ERT website. **(40 CFR 63.6150(f)(1))**
 - ii. For data collected using test methods that are not supported by the USEPA's ERT as listed on the EPA's ERT website, the results of the performance test must be included as an attachment in the ERT or an alternate electronic file consistent with the XML schema listed on the USEPA's ERT website. Submit the ERT generated package or alternative file to the USEPA via CEDRI. **(40 CFR 63.6150(f)(2))**
 - b. Submit reports required in Table 6 of 40 CFR Part 63, Subpart YYYY to the USEPA via CEDRI, which can be accessed through the USEPA's CDX (<https://cdx.epa.gov/>). The permittee must use the appropriate electronic report template on the CEDRI website (<https://www.epa.gov/electronic-reporting-air-emissions/compliance-and-emissions-data-reporting-interface-cedri>). The date report templates become available will be listed on the CEDRI website. The report must be submitted by the deadline regardless of the method in which the report is submitted. **(40 CFR 63.6150(g))**

See Appendix 8 - **Permit Staff: Remove if PTI since this is ROP only.**

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

1. The permittee shall comply with all applicable requirements of the National Emission Standards for Hazardous Air Pollutants, as specified in 40 CFR Part 63, Subparts A and YYYY for Stationary Combustion Turbines.
(40 CFR Part 63, Subparts A and YYYY)

[Remove these footnotes if no PTIs are associated with this flexible group.](#)

Footnotes:

¹ This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

² This condition is federally enforceable and was established pursuant to Rule 201(1)(a).