

EU{ID} or FG{ID}
EMISSION UNIT CONDITIONS
Rule 801 Template

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.

NOTE: If using this table as an FG table, change “EMISSION UNIT CONDITIONS” to “FLEXIBLE GROUP CONDITIONS” and move the flexible group table under section “D. FLEXIBLE GROUP SPECIAL CONDITIONS”

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.

If this template is being used for an ROP Reopening or Renewal, and the Rule 801 conditions were established in a PTI, the appropriate footnotes which reference enforceability must be added to each applicable condition in the template.

DESCRIPTION

Requirements for a fossil fuel-fired emission unit which has the potential to emit more than 25 tons of NO_x each ozone control period (May 1 through September 30) and which has a maximum rated heat input capacity of more than 250 MMBTU/hr.

Flexible Group ID: {Enter Flexible Group IDs or NA}

NOTE: If using this table as an FG table, change “Flexible Group ID” to “Emission Unit” delete the Flexible Group name and add the Emission Unit name(s) or NA.

POLLUTION CONTROL EQUIPMENT

{Enter pollution control equipment names or NA}

I. EMISSION LIMIT(S)

Optional – Use if unit(s) are a fossil fuel-fired, electricity-generating utility unit (R 336.1801(2)(a)) or a fossil fuel-fired boiler or process heater (R 336.1801(2)(b)). Use the appropriate UAR for the type of unit.

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. NO _x	See Table 81 at the end of this table	Ozone Control Period			R 336.1801(3)(a) or R 336.1801(3)(b)

Optional – Use if unit(s) is a gas-fired boiler or process heater that fires gaseous fuel which contains more than 50% hydrogen by volume

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. NO _x	0.25 lb/MMBTU heat input	Ozone Control Period			R 336.1801(3)(c)

Optional – Use if unit(s) is a natural gas-fired stationary internal combustion engine

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. NOx	14 grams/brake HP-hr at rated output	Ozone Control Period			R 336.1801 (3)(d)(i)

Optional – Use if unit(s) is a diesel-fired stationary internal combustion engine

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. NOx	10 grams/brake HP-hr at rated output	Ozone Control Period			R 336.1801 (3)(d)(ii)

Optional – Use if unit(s) is a stationary gas turbine that is not subject to 40 CFR Part 60, Subpart GG

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. NOx	75 ppmv, corrected to 15% O ₂ at rated capacity	Ozone Control Period			R 336.1801(3)(f)

Optional – Use if unit(s) is a cement kiln and they are showing compliance by emission reductions

- The permittee shall show a 25% rate-based reduction of NOx from 1995 levels. Compliance shall be based on calculations showing that the emission rate, on a pounds of NOx per ton of clinker produced basis, during each compliance ozone control period, has been reduced below the 1995 ozone control period emission rate by 25%.
(R 336.1801(3)(e)(iii))

{If NA, remove table}

II. MATERIAL LIMIT(S)

Material	Limit	Time Period/Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1.					

{If NA, remove table}

III. PROCESS/OPERATIONAL RESTRICTION(S)

Optional – For cement kilns subject to Rule 801. May choose 1 or both options depending on the facility. If one or neither apply, then delete the appropriate condition(s).

- The permittee shall not operate the cement kilns unless the low NOx burners are installed and operating properly.
(R 336.1801(3)(e)(i))

And / Or

- The permittee shall not operate the cement kilns unless the mid-kiln system firing is installed and operating properly. (R 336.1801(3)(e)(ii))

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

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

Optional – Use only if the facility is using performance testing to show compliance with Rule 801, otherwise remove these conditions.

1. The permittee shall verify NO_x emission rates from {EU / FG / PORTION OF THE EU} by testing at the owner's expense, in accordance with the Department requirements. Testing shall be performed using an approved USEPA Method listed in 40 CFR Part 60, Appendix A. An alternate method, or a modification to the approved USEPA Method, may be specified in an AQD-approved Test Protocol. 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 336.1801(5), R 336.1801(7), R 336.2001, R 336.2003, R 336.2004)**
2. The permittee shall verify the NO_x emission rates from {EU / FG / PORTION OF THE EU}, according to the following schedule: **(R 336.1213(3), R 336.1801(6), R 336.2001, R 336.2003, R 336.2004)**
 - a. The permittee shall conduct performance tests at least once every ozone control period.
 - b. After 2 consecutive ozone control periods in which the emission unit demonstrates compliance, the permittee shall conduct performance tests at least once every 2 years during the ozone control period.
 - c. After a total of 4 consecutive ozone control periods in which the emission unit has remained in compliance, the permittee shall conduct performance tests at least once every 5 years during the ozone control period.
 - d. If {EU / FG / PORTION OF THE EU} is not in compliance at the end of an ozone control period, then the permittee shall conduct a compliance performance test each ozone control period but can again elect to use the alternative schedule specified above, as applicable.
3. The permittee shall notify the AQD Technical Programs Unit Supervisor and the District Supervisor not less than 30 days of the time and place before performance tests are conducted. **(R 336.1213(3))**

VI. MONITORING/RECORDKEEPING

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

Optional – Use only if the facility is using CEMS to show compliance with Rule 801, otherwise remove this condition.

1. The permittee shall monitor and record the concentrations of NO_x on a continuous basis according to the monitoring requirements in 40 CFR Part 60, Subpart A and Appendix B, and comply with the quality assurance procedures in 40 CFR Part 60, Appendix F or 40 CFR Part 75, as applicable and acceptable to the department. **(R 336.1801(8)(a))**

VII. REPORTING

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 the reporting period July 1 to December 31 and September 15 for the 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))**

Only include the RATA requirement if they are using a CEMS to show compliance

4. The permittee shall submit any performance test reports {including RATA reports} to the AQD Technical Programs Unit and District Office, in a format approved by the AQD. **(R 336.1213(3)(c), R 336.2001(5))**

Always include

5. The permittee shall submit a summary report, in an acceptable format, to the department within 60 days after the end of each ozone control period. The report shall include all of the following information: **(R 336.1801(9))**
 - a. The date, time, magnitude of emissions, and emission rates where applicable, of the specified emission unit or utility system.
 - b. If emissions or emission rates exceed the emissions or rates allowed for in the ozone control period by the applicable emission limit, the cause, if known, and any corrective action taken.
 - c. The total operating time of the emission unit during the ozone control period.
 - d. For continuous emission monitoring systems, system performance information shall include the date and time of each period during which the continuous monitoring system was inoperative, except for zero and span checks, and the nature of the system repairs or adjustments. When the continuous monitoring system has not been inoperative, repaired, or adjusted, the information shall be stated in the report.

See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

NA

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).

Remove reference Table 81 (below) before sending the ROP to applicant

Table 81

Boilers and process heaters with heat input capacity of 250 million Btu or more NO _x emission limitations (pounds NO _x per million Btu of heat input averaged over the ozone control period)	
Fuel type	Emission limit
Natural gas	0.20
Distillate oil	0.30
Residual oil	0.40
Coal	
(1) Coal spreader stoker	0.40
(2) Pulverized coal fired	0.40
Gas (other than natural gas) ¹	0.25

For units operating with a combination of gas, oil, or coal, a variable emission limit calculated as the heat input weighted average of the applicable emission limits shall be used. The emission limit shall be determined as follows:

$$\text{Emission limit} = a (0.20) + b (\text{applicable oil limit}) + c (\text{applicable coal limit}) + d (0.25)$$

Where:

a = Is the percentage of total heat input from natural gas

b = Is the percentage of total heat input from oil

c = Is the percentage of total heat input from coal

d = Is the percentage of total heat input from gas (other than natural gas)

¹ This may include a mixture of gases. In this case, natural gas may be part of the mixture.