

**FG{ID}**  
**FLEXIBLE GROUP CONDITIONS**  
**Major Source – Existing Heavy Liquid**

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.

If a source that is an area source for HAPs gets a PTI that makes it a major source for HAPs and if the date of installation of the boiler(s) and process heater(s) is June 4, 2010 or earlier, this source is considered an existing source. If it was installed or reconstructed after June 4, 2010, then it is a new source, and this table is not applicable.

Existing sources have 3 years to comply with the requirements of the Boiler MACT after becoming a major source per 40 CFR 63.7495(c)(2).

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 existing boilers with a heat input capacity of 10 MMBTU/hr or greater in the heavy liquid fuel subcategory. Emissions averaging is an option and the Appendix for emissions averaging can be requested. The energy credits option is not built into this template but can be added with the Appendix for energy credits upon request.

### **DESCRIPTION**

Heavy liquid fuel subcategory (includes residual oil and any other liquid fuel not classified as a light liquid) requirements for existing industrial, commercial, and institutional boilers and process heaters with a heat input capacity of 10 MMBTU/hr or greater at major sources of HAP emissions per 40 CFR Part 63, Subpart DDDDD (Boiler MACT). {May add specifics for the affected EU(s).}

**Emission Unit:** {Site Specific List of Emission Units}

### **POLLUTION CONTROL EQUIPMENT**

{Enter site specific pollution control equipment or NA}

### **I. EMISSION LIMIT(S)**

For pollutants in this table, choose the emission limits that the facility is to comply with. If the facility is using emissions averaging to comply with emission limits, do not mix emission limit bases within the EU pollutant specific emissions averaging group. If the permittee is using emissions averaging to comply, use appropriate appendix.

Remove alternative limits if the source only has non-electricity units – if using alternative limits, change numbering per ROP shell instructions. Choose the appropriate Monitoring/Testing Method SC references and renumber as appropriate/delete the nonapplicable ones.

**If the table has multiple units and not using emissions averaging** – Add the phrase “per emission unit” or other similar language that clarifies that each emission limit applies to each unit in the “Equipment” column.

**ALWAYS INCLUDE ONE OF THESE OPTIONS FOR HCl PER APPLICABLE EU.** For those unit(s) that are complying without an HCl CEMS, keep SC VI.1 and SC VI.2 if the unit is using a continuous monitoring system to show compliance with emission limit (i.e., monitoring pH and flow or SO<sub>2</sub> CEMS). Choose the appropriate Monitoring/Testing Method SC references and renumber as appropriate/delete the nonapplicable ones.

Pollutant	Limit	Time Period/Operating Scenario	Equipment	Monitoring/Testing Method	Underlying Applicable Requirements
1. Hydrogen Chloride (HCl)	1.1 x 10 <sup>-3</sup> lb/MMBTU heat input*	Hourly (if not using CEMS)  OR  30-day rolling average (if using CEMS)	List each applicable emission unit in FG{ID}	SC V.3 SC V.11 SC VI.1 SC VI.2  OR  SC VI.1 SC VI.2 (if using CEMS)	40 CFR 63.7500 40 CFR Part 63, Subpart DDDDD, Table 2.14.a
1. Hydrogen Chloride (HCl)  (alternative limit only applicable to units that generate steam, cogen with electricity, or both)	1.4 x 10 <sup>-3</sup> lb/MMBTU steam output*	Hourly (if not using CEMS)  OR  30-day rolling average (if using CEMS)	List each applicable emission unit in FG{ID}	SC V.3 SC V.11 SC VI.1 SC VI.2  OR  SC VI.1 SC VI.2 (if using CEMS)	40 CFR 63.7500 40 CFR Part 63, Subpart DDDDD, Table 2.14.a
1. Hydrogen Chloride (HCl)  (alternative limit only applicable to boilers that generate only electricity)	1.6 x 10 <sup>-2</sup> lb/MWh*	Hourly (if not using CEMS)  OR  30-day rolling average (if using CEMS)	List each applicable emission unit in FG{ID}	SC V.3 SC V.11 SC VI.1 SC VI.2  OR  SC VI.1 SC VI.2 (if using CEMS)	40 CFR 63.7500 40 CFR Part 63, Subpart DDDDD, Table 2.14.a

**ALWAYS INCLUDE ONE OF THESE OPTIONS FOR MERCURY PER APPLICABLE EU.** For those unit(s) that are complying without an Hg CEMS or sorbent trap monitoring system, keep SC VI.1 and SC VI.2 if the unit is using a continuous monitoring system to show compliance with emission limit (ex. sorbent or carbon injection rate monitoring). Choose the appropriate Monitoring/Testing Method SC references and renumber as appropriate/delete the nonapplicable ones.

2. Mercury	2.0 x 10 <sup>-6</sup> lb/MMBTU heat input*	Hourly (if not using CEMS)  OR  30-day rolling average (if using CEMS)	List each applicable emission unit in FG{ID}	SC V.3 SC V.11 SC VI.1 SC VI.2  OR  SC VI.1 SC VI.2 (if using CEMS)	40 CFR 63.7500, 40 CFR Part 63, Subpart DDDDD, Table 2.14.b
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2. Mercury  (alternative limit only applicable to units that generate steam, cogen with electricity, or both)	2.5 x 10 <sup>-6</sup> lb/MMBTU steam output*	Hourly (if not using CEMS)  OR  30-day rolling average (if using CEMS)	List each applicable emission unit in FG{ID}	SC V.3 SC V.11 SC VI.1 SC VI.2  OR  SC VI.1 SC VI.2 (if using CEMS)	40 CFR 63.7500, 40 CFR Part 63, Subpart DDDDD, Table 2.14.b
2. Mercury  (alternative limit only applicable to boilers that generate only electricity)	2.8 x 10 <sup>-5</sup> lb/MWh*	Hourly (if not using CEMS)  OR  30-day rolling average (if using CEMS)	List each applicable emission unit in FG{ID}	SC V.3 SC V.11 SC VI.1 SC VI.2  OR  SC VI.1 SC VI.2 (if using CEMS)	40 CFR 63.7500, 40 CFR Part 63, Subpart DDDDD, Table 2.14.b

**ALWAYS INCLUDE AT LEAST ONE OF THESE OPTIONS FOR PM PER APPLICABLE EU. Must choose either Filterable PM or TSM (Total Selected Metals)** {Emission limits in red font are for TSM only}. For those unit(s) that are complying without a PM CEMS or PM CPMS, keep SC VI.1 and SC VI.2 if the unit is using a continuous monitoring system to show compliance with emission limit (ex. opacity monitor, bag leak detector, pressure drop, or total secondary electric power input). Choose the appropriate Monitoring/Testing Method SC references and renumber as appropriate/delete the nonapplicable ones.

3. Filterable PM (TSM*)	6.2 x 10 <sup>-2</sup> lb/MMBTU heat input*  (2.0 x 10 <sup>-4</sup> lb/MMBTU heat input*)	Hourly (if not using CEMS)  OR  30-day rolling average (if using CEMS)	List each applicable emission unit in FG{ID}	SC V.3 SC VI.1 SC VI.2  OR  SC VI.1 SC VI.2 (if using CEMS)  (or for TSM) SC V.3 SC V.11	40 CFR 63.7500, 40 CFR Part 63, Subpart DDDDD, Table 2.16.b
3. Filterable PM (TSM*)  (alternative limit only applicable to units that generate steam, cogen with electricity, or both)	7.5 x 10 <sup>-2</sup> lb/MMBTU steam output*  (2.5 x 10 <sup>-4</sup> lb/MMBTU of steam output*)	Hourly (if not using CEMS)  OR  30-day rolling average (if using CEMS)	List each applicable emission unit in FG{ID}	SC V.3 SC VI.1 SC VI.2  OR  SC VI.1 SC VI.2 (if using CEMS)  (or for TSM) SC V.3 SC V.11	40 CFR 63.7500, 40 CFR Part 63, Subpart DDDDD, Table 2.16.b

3. Filterable PM (TSM*)  (alternative limit only applicable to boilers that generate only electricity)	0.86 lb/MWh*  (2.8 x 10 <sup>-3</sup> lb/MWh*)	Hourly (if not using CEMS)  OR  30-day rolling average (if using CEMS)	List each applicable emission unit in FG{ID}	SC V.3 SC VI.1 SC VI.2  OR  SC VI.1 SC VI.2 (if using CEMS)  (or for TSM) SC V.3 SC V.11	40 CFR 63.7500, 40 CFR Part 63, Subpart DDDDD, Table 2.16.b
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**ALWAYS INCLUDE ONE OF THESE OPTIONS FOR CO PER APPLICABLE EU.** For those unit(s) that are complying without a CO CEMS, keep SC VI.1 and SC VI.2 if the unit is using a continuous monitoring system to show compliance with emission limit (ex. oxygen analyzer system). Choose the appropriate Monitoring/Testing Method SC references and renumber as appropriate/delete the nonapplicable ones.

4. CO	130 ppmv on a dry basis corrected to 3% O <sub>2</sub> *	Hourly  OR  30-day rolling average (if using CEMS)	List each applicable emission unit in FG{ID}	SC V.3 SC VI.1 SC VI.2  OR  SC VI.1 SC VI.2 (if using CEMS)	40 CFR 63.7500 40 CFR Part 63, Subpart DDDDD, Table 2.16.a
4. CO  (alternative limit only applicable to units that generate steam, cogen with electricity, or both)	0.13 lb/MMBTU of steam output*	Hourly  OR  30-day rolling average (if using CEMS)	List each applicable emission unit in FG{ID}	SC V.3 SC VI.1 SC VI.2  OR  SC VI.1 SC VI.2 (if using CEMS)	40 CFR 63.7500 40 CFR Part 63, Subpart DDDDD, Table 2.16.a
4. CO  (alternative limit only applicable to boilers that generate only electricity)	1.4 lb/MWh*	Hourly  OR  30-day rolling average (if using CEMS)	List each applicable emission unit in FG{ID}	SC V.3 SC VI.1 SC VI.2  OR  SC VI.1 SC VI.2 (if using CEMS)	40 CFR 63.7500 40 CFR Part 63, Subpart DDDDD, Table 2.16.a

\* The emission limits apply at all times except during startup and shutdown.

**Delete the following if the permittee will be complying with the PM limit and not TSM.**

\* TSM (total selected metals) means the sum of the following metallic hazardous air pollutants: arsenic, beryllium, cadmium, chromium, lead, manganese, nickel, and selenium.

**OPTIONAL -** If the permittee is demonstrating compliance with emission limits by emissions averaging, include the following SC (The permittee may not include new boilers or process heaters in an emissions average).

- As an alternative to meeting the emission limits for PM (or TSM), HCl, or mercury, stated in SC I.1 through SC I.3, on a boiler or process heater-specific basis, if the permittee has more than one existing boiler or process heater in a subcategory located at the facility, the permittee may demonstrate compliance by emissions averaging, if averaged emissions are not more than 90 percent of the applicable emission limit, as specified in Appendix 7. (40 CFR 63.7522(a) and (b))

If only Emissions Averaging.

See Appendix 7 “Emissions Averaging” {Remove reference to appendix name when finalizing draft permit}

## II. MATERIAL LIMIT(S)

NA

## III. PROCESS/OPERATIONAL RESTRICTION(S)

**OPTIONAL** – Use the following condition only for existing area sources that are now major. Delete if not applicable (i.e., if they have the documentation to show that this has been completed) and renumber conditions appropriately. The DATE will be three years from the date the source becomes major.

1. The permittee must complete an initial tune-up as specified in SC III.4 by no later than DATE. **(40 CFR 63.7510(e))**

**OPTIONAL** – Use the following condition only for existing area sources that are now major. Delete if not applicable (i.e., if they have the documentation to show that this has been completed) and renumber conditions appropriately. The DATE will be three years from the date the source becomes major.

2. The permittee must complete the one-time energy assessment specified in Table 3 of 40 CFR Part 63, Subpart DDDDD no later than DATE. **(40 CFR 63.7510(e), 40 CFR Part 63, Subpart DDDDD, Table 3.4)**

### **ALWAYS INCLUDE**

3. The permittee must comply with the applicable emission limits, work practice standards, and operating limits at all times of operation, except during periods of startup and shutdown, during which time the permittee must comply with the work practice standards in items 5 and 6 in Table 3 of 40 CFR Part 63, Subpart DDDDD. **(40 CFR 63.7500(f), 40 CFR 63.7505(a), 40 CFR 63.7530(h), 40 CFR 63.7540(d))**

**OPTIONAL** – Use the following 2 conditions if there are units using the definition (2) of “startup.”

4. If the permittee chooses to comply using definition (2) of “startup” in 40 CFR 63.7575, the permittee must develop and implement a written startup and shutdown plan (SSP) according to the requirements in item 5 in Table 3 of 40 CFR Part 63, Subpart DDDDD. The SSP must be maintained onsite and available upon request for public inspection. **(40 CFR 63.7505(e), 40 CFR Part 63, Subpart DDDDD, Table 3.5.c)**
5. For units selecting paragraph (2) of the definition of “startup” in 40 CFR 63.7575 and the permittee finds that the PM control(s) are unable to safely engage and operate within 1 hour of first firing of non-clean fuels, the permittee may choose to rely on paragraph (1) of definition of “startup” in 40 CFR 63.7575 or the permittee may submit, to the appropriate AQD District Supervisor, a request for a variance with the PM controls requirement, as described below. **(40 CFR 63.7555(d)(13))**
  - a. The request shall provide evidence of a documented manufacturer-identified safety issue.
  - b. The request shall provide information to document that the PM control device is adequately designed and sized to meet the applicable PM emission limit.
  - c. In addition, the request shall contain documentation that:
    - i. The unit is using clean fuels to the maximum extent possible to bring the unit and PM control device up to the temperature necessary to alleviate or prevent the identified safety issues prior to the combustion of primary fuel; and
    - ii. The unit has explicitly followed the manufacturer’s procedures to alleviate or prevent the identified safety issue; and
    - iii. Identifies with specificity the details of the manufacturer’s statement of concern.
  - d. The permittee must comply with all other work practice requirements, including but not limited to data collection, recordkeeping, and reporting requirements.

### **ALWAYS INCLUDE**

6. The permittee must operate and maintain each heavy liquid fuel unit in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the AQD that 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 Part 63.7500(a)(3))**

7. The permittee shall conduct a tune up of each boiler or process heater as specified below. For each boiler or process heater that does not have an oxygen trim system installed, the annual tune-up shall be no more than 13 months after the previous tune-up. **(40 CFR 63.7515(d))**
  - a. As applicable, inspect the burner, and clean or replace any components of the burner as necessary. The permittee may perform the burner inspection any time prior to the tune up or may delay the burner inspection until the next scheduled or unscheduled unit shutdown. **{OPTIONAL – Use if there are units that produce electricity for sale.} Units that produce electricity for sale may delay the burner inspection until the first outage, not to exceed 36 months from the previous inspection. (40 CFR 63.7540(a)(10)(i))**
  - b. Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available. **(40 CFR 63.7540(a)(10)(ii))**
  - c. Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly (the permittee may delay the inspection until the next scheduled unit shutdown). **{OPTIONAL – Use if there are units that produce electricity for sale.} Units that produce electricity for sale may delay the burner inspection until the first outage, not to exceed 36 months from the previous inspection. (40 CFR 63.7540(a)(10)(iii))**
  - d. Optimize total emissions of CO. This optimization should be consistent with the manufacturer's specifications, if available, and with any NO<sub>x</sub> requirement to which the unit is subject. **(40 CFR 63.7540(a)(10)(iv))**
  - e. Measure the concentrations in the effluent stream of CO in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer. **(40 CFR 63.7540(a)(10)(v))**

**OPTIONAL – Use only if there are unit(s) that have an oxygen trim system installed. Delete if not applicable.**

8. The permittee shall conduct a tune-up of each emission unit that has an oxygen trim system installed in FG{ID} of the burner(s) and combustion controls, as applicable, every 5 years as specified in SC III.7.a through e. **(40 CFR 63.7500(d), 40 CFR 63.7540(a)(12), 40 CFR Part 63, Subpart DDDDD, Table 3)**
  - a. Each 5-year tune-up must be conducted no more than 61 months after the previous tune-up. **(40 CFR 63.7515(d))**
  - b. The permittee may delay the burner inspection until the next scheduled or unscheduled unit shutdown, but each burner must be inspected at least once every 72 months. **(40 CFR 63.7540(a)(12))**

#### **ALWAYS INCLUDE**

9. If a boiler or process heater is not operating on the required date for a tune-up, the permittee must conduct a tune-up within 30 calendar days of startup of that boiler or process heater. **(40 CFR 63.7540(a)(13))**

**OPTIONAL – Use if the permittee is using stack testing to demonstrate compliance with any emission limit.**

10. The permittee shall maintain the 30-day rolling average operating load of each unit such that it does not exceed 110 percent of the highest hourly average operating load recorded during the performance test. **(40 CFR 63.7540(a), 40 CFR Part 63, Subpart DDDDD, Table 4.7)**

#### **IV. DESIGN/EQUIPMENT PARAMETER(S)**

Boilers and process heaters that have a CO emission limit are required to have either a CO CEMS or an oxygen analyzer system, which includes an oxygen trim system, installed and operating to show compliance with this emission limit. If the facility is using stack tests to show compliance with this limit, they must also have either an oxygen analyzer system or an oxygen trim system installed.

#### **CHOOSE AT LEAST ONE CO MONITORING OPTION**

**OPTIONAL – Use if the permittee is using an oxygen analyzer system to demonstrate compliance with the CO emission limit. This requirement does not apply to units that install an oxygen trim system since these units will set**



the trim system to the level specified in 40 CFR 63.7525(a). If necessary, specify emission units that are subject to this condition. **If deleted, verify all final numbering.**

1. The permittee must install, operate, and maintain an oxygen analyzer system in accordance with the manufacturer's recommendations and the site-specific monitoring plan. The permittee shall maintain the 30-day rolling average oxygen content at or above the lowest hourly average oxygen concentration measured during the most recent CO performance test. (40 CFR 63.7505(d), 40 CFR 63.7525(a), 40 CFR 63.7540(a), 40 CFR Part 63, Subpart DDDDD, Table 4.8 and Table 8.9)

**OPTIONAL** – Use if the permittee is specifically using an oxygen trim system to demonstrate compliance with the CO emission limit. If necessary, specify emission units that are subject to this condition. **If deleted, verify all final numbering.**

2. The permittee must install, operate, and maintain an oxygen trim system in accordance with the manufacturer's recommendations and the site-specific monitoring plan. The permittee shall operate an oxygen trim system with the oxygen level set no lower than the lowest hourly average oxygen concentration measured during the most recent CO performance test as the operating limit for oxygen in the combustion device. (40 CFR 63.7505(d), 40 CFR 63.7525(a)(7))

**OPTIONAL** – Use if the permittee is using a CO CEMS to demonstrate compliance with the CO emission limit. If necessary, specify emission units that are subject to this condition. **If deleted, verify all final numbering.**

3. The permittee must install, operate, and maintain in a satisfactory manner device(s) to monitor and record the CO and oxygen (or carbon dioxide) content of the exhaust gas on a continuous basis. The monitor shall be operated in accordance with 40 CFR Part 60, Appendix B, 40 CFR Part 75 (if a CO<sub>2</sub> analyzer is used), and the site-specific monitoring plan. (40 CFR 63.7505(d), 40 CFR 63.7525(a), 40 CFR 63.7540(a)(8))

**CHOOSE THE APPROPRIATE PM MONITORING OPTION(S), IF NOT USING STACK TESTING TO COMPLY**

**OPTIONAL** - Use only if the boiler or process heater has an average annual heat input rate greater than 250 MMBTU per hour from solid fossil fuel and the permittee demonstrates compliance with the PM limit instead of the alternative TSM limit and are using PM CPMS. If necessary, specify emission units that are subject to this condition. **If deleted, verify all final numbering.**

4. The permittee must install, certify, maintain, and operate a PM CPMS to monitor emissions discharged to the atmosphere and record the output of the system according to the procedures in the approved site-specific monitoring plan and in accordance with 40 CFR 63.7525(b)(1) through (4). (40 CFR 63.7505(d), 40 CFR 63.7525(b))

**OPTIONAL** - Use only if the boiler or process heater has an average annual heat input rate greater than 250 MMBTU per hour from solid fossil fuel and the permittee demonstrates compliance with the PM limit instead of the alternative TSM limit and are using a PM CEMS. If necessary, specify emission units that are subject to this condition. **If deleted, verify all final numbering.**

5. The permittee must install, certify, maintain, and operate in a satisfactory manner a PM CEMS to monitor emissions discharged to the atmosphere and record the output of the system on a continuous basis. The monitor shall be operated in accordance with 40 CFR Part 60, Appendix B, 40 CFR Part 60, Appendix F, and the site-specific monitoring plan. (40 CFR 63.7505(d), 40 CFR 63.7525(b)(5), 40 CFR 63.7525(b)(7))

**OPTIONAL** – Use if the permittee has an applicable opacity operating limit per Table 4 and is not otherwise required to or elects to install and operate a PM CPMS, PM CEMS, or a bag leak detection system (choose the appropriate conditions from Table 4 in the UAR). If necessary, specify emission units that are subject to this condition. **If deleted, verify all final numbering.**

6. The permittee must install, operate, certify and maintain in a satisfactory manner a COMS to monitor and record opacity on a continuous basis. The monitor shall be operated in accordance with the procedures in 40 CFR Part 60, Appendix B and the site-specific monitoring plan. The permittee shall not exceed an opacity of 10 percent or the highest hourly average opacity reading measured during the most recent performance test run demonstrating compliance with the PM (or TSM) emission limitation (daily block average). (40 CFR 63.7505(d), 40 CFR 63.7525(c), 40 CFR 63.7540(a), 40 CFR Part 63, Subpart DDDDD, Table 4.3.a, 4.4.a, and/or 4.6)

**OPTIONAL**- Use if the source has a wet scrubber and is using pressure drop and liquid flow rate to demonstrate compliance with the PM emissions limit. If necessary, specify emission units that are subject to this condition. **If deleted, verify all final numbering.**

7. The permittee shall install, calibrate, maintain, and operate in a satisfactory manner device(s) to monitor and record the scrubber pressure drop and a flow monitoring system on a continuous basis. The monitors shall be

operated in accordance with procedures outlined in 40 CFR 63.7525(d), (e), and (f) and the site-specific monitoring plan. The permittee shall maintain the 30-day rolling average pressure drop and the 30-day rolling average liquid flow rate at or above the lowest one-hour average pressure drop and the lowest one-hour average liquid flow rate, respectively, measured during the most recent performance test demonstrating compliance with the PM emission limitation. (40 CFR 63.7505(d), 40 CFR 63.7525(d), (e), and (f), 40 CFR 63.7540(a), 40 CFR Part 63, Subpart DDDDD, Table 4.1)

**OPTIONAL** – Use if the source has an ESP and is not subject to PM CPMS or continuous compliance with an opacity limit and is monitoring secondary electric power to demonstrate compliance with the PM emission limit. If necessary, specify emission units that are subject to this condition. **If deleted, verify all final numbering.**

8. The permittee shall install, calibrate, maintain, and operate in a satisfactory manner a device to monitor and record the secondary electric power monitoring system for an ESP on a continuous basis. The monitor shall be operated in accordance with procedures outlined in 40 CFR 63.7525(h) and the site-specific monitoring plan. The permittee shall maintain the 30-day rolling average total secondary electric power input of the electrostatic precipitator at or above the operating limits established during the most recent performance test. (40 CFR 63.7505(d), 40 CFR 63.7525(h), 40 CFR 63.7540(a), 40 CFR Part 63, Subpart DDDDD, Table 4.4.b)

**OPTIONAL** – Use if the permittee has a fabric filter and elects to use a bag leak detection system instead of a PM CPMS to demonstrate compliance with PM emission limit. If necessary, specify emission units that are subject to this condition. **If deleted, verify all final numbering.**

9. The permittee must install, calibrate, maintain, and continuously operate the bag leak detection system. The monitor shall be operated in accordance with 40 CFR 63.7525(i) and the site-specific monitoring plan. The permittee shall operate the fabric filter such that the bag leak detection system alert is not activated more than 5 percent of the operating time during each 6-month period. (40 CFR 63.7505(d), 40 CFR 63.7525(j), 40 CFR 63.7540(a), 40 CFR Part 63, Subpart DDDDD, Table 4.3.b)

**CHOOSE THE APPROPRIATE Hg MONITORING OPTION(S), IF NOT USING STACK TESTING TO COMPLY**

**OPTIONAL** – Use if the source has an operating limit that requires the use of a monitoring system to measure sorbent injection rate (e.g., weigh belt, weigh hopper, or hopper flow measurement device) to demonstrate compliance with the mercury emission limit. If necessary, specify emission units that are subject to this condition. **If deleted, verify all final numbering.**

10. The permittee shall install, calibrate, maintain, and operate in a satisfactory manner a device to monitor and record the sorbent or carbon injection rate on a continuous basis. The monitor shall be operated in accordance with 40 CFR 63.7525(d) and (i) and the site-specific monitoring plan. The permittee shall maintain the minimum sorbent or carbon injection rate. The minimum sorbent or carbon injection rate is the load fraction multiplied by the lowest hourly average sorbent or carbon injection rate measured during the most recent performance test demonstrating compliance with the mercury emission limitation. (40 CFR 63.7505(d), 40 CFR 63.7525(i), 40 CFR 63.7540(a), 40 CFR Part 63, Subpart DDDDD, Table 4.5)

**OPTIONAL** – Use if the source elects to monitor mercury with CEMS or sorbent trap monitoring system. If necessary, specify emission units that are subject to this condition. **If deleted, verify all final numbering.**

11. The permittee shall install, calibrate, maintain, and operate in a satisfactory manner a device to monitor and record the mercury emissions on a continuous basis. The monitor shall be operated in accordance with procedures outlined in 40 CFR 63.7525(l) and the site-specific monitoring plan. (40 CFR 63.7505(d), 40 CFR 63.7525(l), 40 CFR 63.7540(a)(14))

**CHOOSE THE APPROPRIATE HCl MONITORING OPTION(S), IF NOT USING STACK TESTING TO COMPLY**

**OPTIONAL** – Use if the source elects to monitor HCl with CEMS. If necessary, specify emission units that are subject to this condition. **If deleted, verify all final numbering.**

12. The permittee shall install, calibrate, maintain, and operate in a satisfactory manner a device to monitor and record the HCl emissions on a continuous basis. The monitor shall be operated in accordance with procedures outlined in 40 CFR 63.7525(l) and the site-specific monitoring plan. (40 CFR 63.7505(d), 40 CFR 63.7525(l))

**OPTIONAL** – Use if the source has a wet scrubber and is monitoring pH to demonstrate compliance with the HCl limit. If necessary, specify emission units that are subject to this condition. **If deleted, verify all final numbering.**

13. The permittee shall install, calibrate, maintain, and operate in a satisfactory manner a device to monitor and record the scrubber effluent pH on a continuous basis. The monitor shall be operated in accordance with procedures outlined in 40 CFR 63.7525(d) and (g) and the site-specific monitoring plan. The permittee shall



maintain the 30-day rolling average effluent pH at or above the lowest one-hour average pH and the 30-day rolling average liquid flow rate at or above the lowest one-hour average liquid flow rate measured during the most recent performance test demonstrating compliance with the HCl emission limitation. **(40 CFR 63.7505(d), 40 CFR 63.7525(g), 40 CFR 63.7540(a), 40 CFR Part 63, Subpart DDDDD, Table 4.2)**

**OPTIONAL** – For boilers or process heaters subject to an HCl emission limit and the permittee has an acid gas wet scrubber or dry sorbent injection control technology and elects to demonstrate compliance with the HCl emission limit with an SO<sub>2</sub> CEMS. If necessary, specify emission units that are subject to this condition. **If deleted, verify all final numbering.**

14. The permittee shall install, maintain, and operate devices to monitor and record the SO<sub>2</sub> concentration of the exhaust gas from each emission unit on a continuous basis. The permittee shall install, certify, operate and maintain each CEMS according to the requirements in either 40 CFR Part 60 or 40 CFR Part 75 and the site-specific monitoring plan. The permittee shall maintain the 30-day rolling average SO<sub>2</sub> emission rate at or below the highest hourly average SO<sub>2</sub> concentration measured during the most recent HCl performance test. **(40 CFR 63.7505(d), 40 CFR 63.7525(m), 40 CFR 63.7540(a), 40 CFR Part 63, Subpart DDDDD, Table 4.9 and Table 8.11)**

**OPTIONAL** – Use if the permittee is using a SO<sub>2</sub> CEMS to monitor compliance with the HCl emission limit. If necessary, specify emission units that are subject to this condition.

15. The permittee shall not operate each boiler or process heater that is controlled with a **wet scrubber and/or dry sorbent injection control technology** unless they are installed, maintained, and operated in a satisfactory manner. **(40 CFR 63.7530(i)(1) and (2))**

## 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 and remove Rule 213(3) from the UAR in SC V.7.**

**{Make sure Special Condition references match what is in Section I.}**

**Items in red font are optional and should only be used if there are units that meet the specified condition, otherwise delete.**

1. The permittee must demonstrate compliance with all applicable emission limits using performance stack testing, fuel analysis, or continuous monitoring systems (CMS) as defined in Table 8 of 40 CFR Part 63, Subpart DDDDD, where applicable. **(40 CFR 63.7505(c))**
2. **OPTIONAL** - Include if existing area sources that are now major and will be complying with the applicable emission limits by performance testing or by CMS. Delete the pollutants that will be monitored through fuel analysis. The DATE will be three years from the date the source becomes major. The permittee must complete an initial compliance demonstration for **HCl, mercury, PM (or TSM), and CO** according to 40 CFR 63.7520 by no later 180 days after **DATE**. **(40 CFR 63.7510(a) and (e))**

**OPTIONAL** - Include only pollutants that are going to be monitored through performance testing and not with a CEMS, CPMS, or fuel analysis. Delete the pollutants that will not be monitored through performance testing. If this is for an existing area source that is now major, add 40 CFR 63.7510(a) to the UARs.

3. The permittee shall verify **HCl, mercury, PM (or TSM), and CO** 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 an approved EPA Method listed in:

Pollutant	Test Method Reference
PM	40 CFR Part 63, Subpart DDDDD, Table 5.1
Metals	40 CFR Part 63, Subpart DDDDD, Table 5.2
HCl	40 CFR Part 63, Subpart DDDDD, Table 5.3
Mercury	40 CFR Part 63, Subpart DDDDD, Table 5.4
CO	40 CFR Part 63, Subpart DDDDD, Table 5.5

Any alternate method, or a modification to the test methods in 40 CFR Part 63, Subpart DDDDD, Table 5 must be approved by EPA per 40 CFR 63.7570(b)(2). 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. 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. This report must also verify that the operating limits for each boiler or process heater have not changed or provide documentation of revised operating limits established during the performance test. **(40 CFR 63.7515(a) and (f), 40 CFR 63.7520, 40 CFR Part 63, Subpart DDDDD, Tables 5 and 7)**

**Always include the next 6 special conditions with any stack testing condition. Delete the pollutants that will not be monitored through performance testing.**

4. The permittee shall verify annually the **HCl, mercury, PM (or TSM), and CO** emission rates from each emission unit annually. Annual performance tests must be completed no more than 13 months after the previous performance test. If the performance tests, for at least 2 consecutive years, show that emissions are at or below **75 percent of the emission limit for HCl, mercury (lb/MWh), CO, and TSM or at or below the emission limit for mercury (lb/MMBTU) and PM**, and if there are no changes in the operation of the individual boiler or process heater or air pollution control equipment that could increase emissions, the permittee may choose to conduct performance tests for the pollutant every third year. Each such performance test must be conducted no more than 37 months after the previous performance test. **(If the permittee elects to demonstrate compliance using emissions averaging under 40 CFR 63.7522, the permittee must continue to conduct performance tests annually.) (40 CFR 63.7510(c), 40 CFR 63.7515(a) and (b))**
5. For any boiler or process heater that has not operated for more than one year since the previous compliance demonstration, the permittee must complete the subsequent compliance demonstration no later than 180 days after the re-start of the affected source. **(40 CFR 63.7515(g))**
6. If a performance test shows emissions exceeded the **emission limit for mercury (lb/MMBTU) and PM or 75 percent of the emission limit for HCl, mercury (lb/MWh), CO, and TSM**, the permittee must conduct annual performance tests for that pollutant until all performance tests over a consecutive 2-year period meet the required level. **(40 CFR 63.7515(c))**
7. 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 63.7545(d))**
8. The permittee must conduct performance tests at representative operating load conditions while burning the type of fuel or mixture of fuels that has the highest content of **chlorine, mercury, and TSM (if the permittee is opting to comply with the TSM alternative standard)** and the permittee must demonstrate compliance and establish the operating limits based on these performance tests. These requirements could result in the need to conduct more than one performance test. Following each performance test and until the next performance test, the permittee must comply with the operating limit for operating load conditions specified in Table 4 of 40 CFR Part 63, Subpart DDDDD. **(40 CFR 63.7520(c))**
9. If the permittee combusts ultra-low sulfur liquid fuel (less than or equal to 15 ppm sulfur), the permittee does not need to conduct further performance tests if the pollutants measured during the initial compliance performance tests meet the emission limits in SC I.1 through I.4 providing the permittee demonstrates on-going compliance with the emission limits by monitoring and recording the type of fuel combusted on a monthly basis. If the permittee intends to use a fuel other than ultra-low sulfur liquid fuel, the permittee must conduct new performance tests within 60 days of burning the new fuel type. **(40 CFR 63.7515(h))**

**OPTIONAL – Include if existing area sources that are now major and will be complying with the applicable emission limits by fuel analysis. The DATE will be three years from the date the source becomes major.**

10. The permittee must complete an initial fuel analysis for **mercury, HCl, or TSM** according to 40 CFR 63.7521 for each type of fuel burned by no later than **DATE**. **(40 CFR 63.7510(a) and (b))**

**OPTIONAL - Include if conducting fuel analysis for mercury, HCl, or TSM. The permittee may demonstrate compliance with the applicable emission limit for any of these pollutants using fuel analysis if the emission rate calculated according to 40 CFR 63.7530(c) is less than the applicable emission limit. Otherwise, the permittee must demonstrate compliance for these pollutants using performance testing. If this is for an existing area source that is now major, add 40 CFR 63.7510(b) to the UARs.**

11. The permittee must conduct a monthly fuel analysis for **mercury, HCl, or TSM** according to 40 CFR 63.7521 for each type of fuel burned. The permittee may comply with this monthly requirement by completing the fuel analysis any time within the calendar month as long as the analysis is separated from the previous analysis by at least 14

calendar days. If burning a new type of fuel, the permittee must conduct a fuel analysis before burning the new type of fuel in the boiler or process heater. If each of 12 consecutive monthly fuel analyses demonstrates 75 percent or less of the compliance level, the permittee may decrease the fuel analysis frequency to quarterly for that fuel. If any quarterly sample exceeds 75 percent of the compliance level or the permittee begins burning a new type of fuel, the permittee must return to monthly monitoring for that fuel, until 12 months of fuel analyses are again less than 75 percent of the compliance level. If sampling is conducted on one day per month, samples should be no less than 14 days apart, but if multiple samples are taken per month, the 14-day restriction does not apply. **(40 CFR 63.7515(e), 40 CFR Part 63, Subpart DDDDD, Table 8.8)**

## **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.**

**{Make sure Special Condition references match what is in Section I.}**

### **ALWAYS INCLUDE**

1. The permittee must develop, implement, and maintain a site-specific monitoring plan according to the requirements listed below, for the use of any CMS (including CEMS, COMS, or Continuous Parameter Monitoring System (CPMS)) used to comply with 40 CFR Part 63, Subpart DDDDD.
  - a. For each CMS, the permittee must develop, and submit to the Administrator for approval upon request, a site-specific monitoring plan that addresses design, data collection, and the quality assurance and quality control elements outlined in 40 CFR 63.8(d) and the elements as listed below.
    - i. Installation of the CMS sampling probe or other interface at a measurement location relative to each affected process unit such that the measurement is representative of control of the exhaust emissions (e.g., on or downstream of the last control device). **(40 CFR 63.7505(d)(1)(i))**
    - ii. Performance and equipment specifications for the sample interface, the pollutant concentration or parametric signal analyzer, and the data collection and reduction systems. **(40 CFR 63.7505(d)(1)(ii))**
    - iii. Performance evaluation procedures and acceptance criteria (e.g., calibrations, accuracy audits, analytical drift). **(40 CFR 63.7505(d)(1)(iii))**
  - b. In the site-specific monitoring plan, the permittee must also address the items listed below.
    - i. Ongoing operation and maintenance procedures. **(40 CFR 63.7505(d)(2)(i))**
    - ii. Ongoing data quality assurance procedures. **(40 CFR 63.7505(d)(2)(ii))**
    - iii. Ongoing recordkeeping and reporting procedures. **(40 CFR 63.7505(d)(2)(iii))**
  - c. The permittee must conduct a performance evaluation of each CMS in accordance with the site-specific monitoring plan. **(40 CFR 63.7505(d)(3))**
  - d. The permittee must operate and maintain the CMS in continuous operation according to the site-specific monitoring plan. **(40 CFR 63.7505(d)(4))**
2. The permittee must operate the monitoring system and collect data at all required intervals at all times that each boiler or process heater is operating and compliance is required, except for periods of monitoring system malfunctions or out of control periods (see 40 CFR 63.8(c)(7)), and required monitoring system quality assurance or control activities, including, as applicable, calibration checks, required zero and span adjustments, and scheduled CMS maintenance as defined in the site-specific monitoring plan. A monitoring system malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring system to provide valid data. Monitoring system failures that are caused in part by poor maintenance or careless operation are not malfunctions. The permittee is required to complete monitoring system repairs in response to monitoring system malfunctions or out-of-control periods and to return the monitoring system to operation as expeditiously as practicable. **(40 CFR 63.7535(b))**
3. The permittee may not use data recorded during periods of startup and shutdown, monitoring system malfunctions or out-of-control periods, repairs associated with monitoring system malfunctions or out-of-control periods or required monitoring system quality assurance or control activities in data averages and calculations used to report emissions or operating levels. The permittee must record and make available upon request results of CMS performance audits and dates and duration of periods when the CMS is out of control to completion of the corrective actions necessary to return the CMS to operation consistent with the site-specific monitoring plan.

The permittee must use all the data collected during all other periods in assessing compliance and the operation of the control device and associated control system. **(40 CFR 63.7535(c))**

4. Except for periods of monitoring system malfunctions, repairs associated with monitoring system malfunctions, and required monitoring system quality assurance or quality control activities (including, as applicable, system accuracy audits, calibration checks, and required zero and span adjustments), failure to collect required data is a deviation of the monitoring requirements. In calculating monitoring results, do not use any data collected during periods of startup and shutdown, when the monitoring system is out of control as specified in the site-specific monitoring plan, while conducting repairs associated with periods when the monitoring system is out of control, or while conducting required monitoring system quality assurance or quality control activities. The permittee must calculate monitoring results using all other monitoring data collected while the process is operating. The permittee must report all periods when the monitoring system is out of control in the semi-annual report. **(40 CFR 63.7535(d))**
5. The permittee must keep records as listed below.
  - a. A copy of each notification and report that the permittee submitted to comply with 40 CFR Part 63, Subpart DDDDD, including all documentation supporting any Initial Notification or Notification of Compliance Status or semiannual compliance report that the permittee submitted. **(40 CFR 63.7555(a)(1))**
  - b. Records of performance tests, fuel analyses, or other compliance demonstrations and performance evaluations. **(40 CFR 63.7555(a)(2))**
6. For each CEMS, COMS, and continuous monitoring system the permittee must keep the following records listed below.
  - a. Records described in 40 CFR 63.10(b)(2)(vii) through (xi). **(40 CFR 63.7555(b)(1))**
  - b. **OPTIONAL – Use if the permittee is using opacity to comply with the PM emission limit. If deleted, verify all final numbering.** Monitoring data for continuous opacity monitoring system during a performance evaluation. **(40 CFR 63.7555(b)(2))**
  - c. Previous (*i.e.*, superseded) versions of the performance evaluation plan. **(40 CFR 63.7555(b)(3))**
  - d. Request for alternatives to relative accuracy test for CEMS. **(40 CFR 63.7555(b)(4))**
  - e. Records of the date and time that each deviation started and stopped. **(40 CFR 63.7555(b)(5))**
7. The permittee must keep the records required in Table 8 of 40 CFR Part 63, Subpart DDDDD including records of all monitoring data and calculated averages for applicable operating limits, such as **opacity, pressure drop, pH, and operating load**, to show continuous compliance with each emission limit and operating limit that applies to the permittee. **(40 CFR 63.7555(c))**
8. For each boiler or process heater, the permittee must keep the applicable as listed below.
  - a. The permittee must keep records of monthly fuel use by each boiler or process heater, including the type(s) of fuel and amount(s) used. **(40 CFR 63.7555(d)(1))**
  - b. **OPTIONAL – Use if the permittee combusts non-hazardous secondary materials that have been determined not to be solid waste pursuant to 40 CFR 241.3(b)(1) and (2). Units exempt from the incinerator standards under section 129(g)(1) of the Clean Air Act because they are qualifying facilities burning a homogeneous waste stream don't need to maintain the records described here. If deleted, verify all final numbering.** The permittee must keep a record that documents how the secondary material combusted meets each of the legitimacy criteria under 40 CFR 241.3(d)(1). If the permittee combusts a fuel that has been processed from a discarded non-hazardous secondary material pursuant to 40 CFR 241.3(b)(4), the permittee must keep records as to how the operations that produced the fuel satisfy the definition of processing in 40 CFR 241.2. If the fuel received a non-waste determination pursuant to the petition process submitted under 40 CFR 241.3(c), the permittee must keep a record that documents how the fuel satisfies the requirements of the petition process. For operating units that combust non-hazardous secondary materials as fuel per 40 CFR 241.4, the permittee must keep records documenting that the material is listed as a non-waste under 40 CFR 241.4(a). **(40 CFR 63.7555(d)(2))**
  - c. **OPTIONAL – Use if the permittee is using stack testing to comply with the HCl emission limit. If deleted, verify all final numbering.** A copy of all calculations and supporting documentation of maximum chlorine

fuel input, using Equation 7 of 40 CFR 63.7530, that were done to demonstrate continuous compliance with the HCl emission limit, for sources that demonstrate compliance through performance testing. Supporting documentation should include results of any fuel analyses and basis for the estimates of maximum chlorine fuel input or HCl emission rates. The permittee can use the results from one fuel analysis for multiple boilers and process heaters provided they are all burning the same fuel type. However, the permittee must calculate chlorine fuel input for each boiler and process heater. **(40 CFR 63.7555(d)(3))**

- d. **OPTIONAL – Use if the permittee is using fuel analysis to comply with the HCl emission limit. If deleted, verify all final numbering.** A copy of all calculations and supporting documentation of HCl emission rates, using Equation 16 of 40 CFR 63.7530, that were done to demonstrate compliance with the HCl emission limit. Supporting documentation should include results of any fuel analyses and basis for the estimates of maximum chlorine fuel input or HCl emission rates. The permittee can use the results from one fuel analysis for multiple boilers and process heaters provided they are all burning the same fuel type. However, the permittee must calculate the HCl emission rate, for each boiler and process heater. **(40 CFR 63.7555(d)(3))**
- e. **OPTIONAL – Use if the permittee is using stack testing to comply with the Hg emission limit. If deleted, verify all final numbering.** A copy of all calculations and supporting documentation of maximum mercury fuel input, using Equation 8 of 40 CFR 63.7530, that were done to demonstrate continuous compliance with the mercury emission limit. Supporting documentation should include results of any fuel analyses and basis for the estimates of maximum mercury fuel input or mercury emission rates. The permittee can use the results from one fuel analysis for multiple boilers and process heaters provided they are all burning the same fuel type. However, the permittee must calculate mercury fuel input, or mercury emission rates, for each boiler and process heater. **(40 CFR 63.7555(d)(4))**
- f. **OPTIONAL – Use if the permittee is using fuel analysis to comply with the Hg emission limit. If deleted, verify all final numbering.** A copy of all calculations and supporting documentation of mercury emission rates, using Equation 17 of 40 CFR 63.7530, that were done to demonstrate compliance with the mercury emission limit. Supporting documentation should include results of any fuel analyses and basis for the estimates of maximum mercury fuel input or mercury emission rates. The permittee can use the results from one fuel analysis for multiple boilers and process heaters provided they are all burning the same fuel type. However, the permittee must calculate mercury fuel input, or mercury emission rates, for each boiler and process heater. **(40 CFR 63.7555(d)(4))**
- g. **OPTIONAL – Use if the permittee is using stack testing to comply with any emission limit. Delete the pollutants that will not be monitored through performance testing. If deleted, verify all final numbering.** If the permittee chooses to stack test less frequently than annually, the permittee must keep a record that documents that the emissions in the previous stack tests were less than **75 percent of the emission limit for HCl, mercury (lb/MWh), CO, and TSM or at or below the emission limit for mercury (lb/MMBTU) and PM**, and document that there was no change in source operations including fuel composition and operation of air pollution control equipment that would cause emissions of the relevant pollutant to increase within the past year. **(40 CFR 63.7555(d)(5))**
- h. Records of the occurrence and duration of each malfunction of the boiler or process heater, or of the associated air pollution control and monitoring equipment. **(40 CFR 63.7555(d)(6))**
- i. Records of actions taken during periods of malfunction to minimize emissions, including corrective actions to restore the malfunctioning boiler or process heater, air pollution control, or monitoring equipment to its normal or usual manner of operation. **(40 CFR 63.7555(d)(7))**
- j. **OPTIONAL – Use if the permittee is using stack testing to comply with the TSM emission limit. If deleted, verify all final numbering.** A copy of all calculations and supporting documentation of maximum TSM fuel input, using Equation 9 of 40 CFR 63.7530, that were done to demonstrate continuous compliance with the TSM emission limit for sources that demonstrate compliance through performance testing. Supporting documentation should include results of any fuel analyses and basis for the estimates of maximum TSM fuel input. The permittee can use the results from one fuel analysis for multiple boilers and process heaters provided they are all burning the same fuel type. However, the permittee must calculate TSM fuel input for each boiler and process heater. **(40 CFR 63.7555(d)(8))**
- k. **OPTIONAL – Use if the permittee is using fuel analysis to comply with the TSM emission limit. If deleted, verify all final numbering.** A copy of all calculations and supporting documentation of TSM emission rates, using Equation 18 of 40 CFR 63.7530, that were done to demonstrate compliance with the TSM emission limit using fuel analysis. Supporting documentation should include results of any fuel analyses and basis for the TSM emission rates. The permittee can use the results from one fuel analysis for multiple boilers and



process heaters provided they are all burning the same fuel type. However, the permittee must calculate TSM emission rates for each boiler and process heater. **(40 CFR 63.7555(d)(8))**

- l. The permittee must maintain records of the calendar date, time, occurrence and duration of each startup and shutdown. **(40 CFR 63.7555(d)(9))**
- m. The permittee must maintain records of the type(s) and the amount(s) of fuels used during each startup and shutdown. **(40 CFR 63.7555(d)(10))**

**OPTIONAL – Use If the permittee is doing emissions averaging to comply. If deleted, verify all final numbering.**

- 9. The permittee must keep a copy of the emissions averaging implementation plan, all calculations as specified in Appendix 7, including monthly records of heat input or steam generation, as applicable, and monitoring records. **(40 CFR 63.7555(e))**

**ALWAYS INCLUDE**

- 10. The permittee shall maintain on-site, and submit if requested by the AQD, the most recent periodic report containing the following information:
  - a. The concentrations of CO in the effluent stream in parts per million by volume, and oxygen in volume percent, measured at high fire or typical operating load, before and after the tune-up of the boiler or process heater. **(40 CFR 63.7540(a)(10)(vi)(A))**
  - b. A description of any corrective actions taken as a part of the tune-up. **(40 CFR 63.7540(a)(10)(vi)(B))**
  - c. The type and amount of fuel used over the 12 months prior to the tune-up, but only if the unit was physically and legally capable of using more than one type of fuel during that period. Units sharing a fuel meter may estimate the fuel used by each unit. **(40 CFR 63.7540(a)(10)(vi)(C))**

**OPTIONAL – Use the following 2 conditions if there are units using the definition (2) of “startup”.**

- 11. For each startup period, for units selecting paragraph (2) of the definition of “startup” in 40 CFR 63.7575, the permittee must maintain records of the time that clean fuel, as defined in 40 CFR Part 63, Subpart DDDDD, Table 3.5.b, combustion begins; the time of the start of feeding fuels that are not clean fuels; the time when useful thermal energy is first supplied; and the time when the PM controls are engaged. Clean fuels are defined as natural gas, synthetic natural gas, propane, other Gas 1 fuels, distillate oil, syngas, ultra-low sulfur diesel, fuel oil-soaked rags, kerosene, hydrogen, paper, cardboard, refinery gas, liquefied petroleum gas, clean dry biomass, and any fuels meeting the appropriate HCl, mercury and TSM emission standards by fuel analysis. **(40 CFR 63.7555(d)(11))**
- 12. For each startup period, for units selecting paragraph (2) of the definition of “startup” in 40 CFR 63.7575, the permittee must maintain records of the hourly steam temperature, hourly steam pressure, hourly steam flow, hourly flue gas temperature, and all hourly average CMS data (e.g., CEMS, PM CPMS, COMS, ESP total secondary electric power input, scrubber pressure drop, scrubber liquid flow rate) collected during each startup period to confirm that the control devices are engaged. In addition, if compliance with the PM emission limit is demonstrated using a PM control device, the permittee must maintain records as specified below. **(40 CFR 63.7555(d)(12))**
  - a. For a boiler or process heater with an electrostatic precipitator, record the number of fields in service, as well as each field’s secondary voltage and secondary current during each hour of startup.
  - b. For a boiler or process heater with a fabric filter, record the number of compartments in service, as well as the differential pressure across the baghouse during each hour of startup.
  - c. For a boiler or process heater with a wet scrubber needed for filterable PM control, record the scrubber’s liquid flow rate and the pressure drop during each hour of startup.

**ALWAYS INCLUDE**

- 13. Records must be in a form suitable and readily available for expeditious review. **(40 CFR 63.7560(a))**
- 14. The permittee must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. **(40 CFR 63.7560(b))**
- 15. The permittee must keep each record on site, or they must be accessible from on-site (for example, through a computer network), for at least 2 years after the date of each occurrence, measurement, maintenance, corrective



action, report, or record. The permittee can keep the records off site for the remaining 3 years. **(40 CFR 63.7560(c))**

See Appendix 7

## **VII. REPORTING**

**Permit Staff – SC VII.1, 2, and 3, references to Rule 213 are ROP only. Remove before putting into a PTL. Renumber as appropriate. Also, remove Rule 213(3) from the UAR in SC VII.9.**

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))**

**OPTIONAL – Use only if the source was recently an area source and has since become a major source, otherwise delete and renumber as appropriate.**

4. For the initial compliance demonstration for each boiler or process heater based on the timeframes specified in SC III.1, the permittee must submit the Notification of Compliance Status before the close of business on the 60<sup>th</sup> day following the completion of the initial boiler tune-up for all boiler or process heaters at the facility. The Notification of Compliance Status report must contain all the information specified below. **(40 CFR 63.7545(e))**
  - a. A description of the affected unit(s) including identification of which subcategories the unit is in, the design heat input capacity of the unit, a description of the add-on controls used on the unit to comply with 40 CFR Part 63, Subpart DDDDD, description of the fuel(s) burned, including whether the fuel(s) were a secondary material determined by the permittee or the EPA through a petition process to be a non-waste under 40 CFR 241.3, whether the fuel(s) were a secondary material processed from discarded non-hazardous secondary materials within the meaning of 40 CFR 241.3, and justification for the selection of fuel(s) burned during the compliance demonstration.
  - b. Summary of the results of all performance tests and fuel analyses, and calculations conducted to demonstrate initial compliance including all established operating limits, and including:
    - i. Identification of whether unit(s) are complying with the PM emission limit or the alternative TSM emission limit.
    - ii. Identification of whether the unit(s) are complying with the output-based emission limits or the heat input-based (i.e., lb/MMBTU or ppm) emission limits,
    - iii. Identification of whether the permittee is complying the arithmetic mean of all valid hours of data from the previous 30 operating days or of the previous 720 hours. This identification shall be specified separately for each operating parameter.
  - c. A summary of the maximum CO emission levels recorded during the performance test to show that any applicable emission standard in 40 CFR Part 63, Subpart DDDDD, Table 2 were met, if a CO CEMS was not used to demonstrate compliance.
  - d. Identification of whether the permittee plans to demonstrate compliance with each applicable emission limit through performance testing, a CEMS, or fuel analysis.
  - e. Identification of whether the permittee plans to demonstrate compliance by emissions averaging and identification of whether the permittee plans to demonstrate compliance by using efficiency credits through energy conservation. If the permittee plans to demonstrate compliance by emissions averaging, report the emission level that was being achieved or the control technology employed on January 31, 2013.
  - f. A signed certification that the subject unit(s) have met all applicable emission limits and work practice standards.
  - g. If the permittee has had a deviation from any emission limit, work practice standard, or operating limit, the permittee must also submit a description of the deviation, the duration of the deviation, and the corrective action taken in the Notification of Compliance Status report.

- h. In addition to the information required in 40 CFR 63.9(h)(2), the notification of compliance status must include the following certification(s) of compliance, as applicable, and signed by a responsible official:
  - i. "This facility completed the required initial tune-up for all of the boilers and process heaters covered by 40 CFR Part 63, Subpart DDDDD at this site according to the procedures in 40 CFR 63.7540(a)(10)(i) through (vi)."
  - ii. "This facility has had an energy assessment performed according to 40 CFR 63.7530(e)."
  - iii. Except for units that burn only natural gas, refinery gas, or other gas 1 fuel, or units that qualify for a statutory exemption as provided in Section 129(g)(1) of the Clean Air Act, include the following: "No secondary materials that are solid waste were combusted in any affected unit."

**ALWAYS INCLUDE** (Note SC VII.5.e.xvi is optional and if the units are not doing emissions averaging, please remove reference of this condition from SC VII.5.b, c, and d)

- 5. The permittee must submit the following semiannual reports that apply to the AQD by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. A semiannual compliance report must contain the information below depending on how the facility chooses to comply with the limits set in 40 CFR Part 63, Subpart DDDDD. **(40 CFR 63.7550(a), 40 CFR 63.7550(b)(5), 40 CFR 63.7550(c))**
  - a. If the facility is subject to the requirements of a tune-up, they must submit a compliance report with the information in SC VII.5.e.i through iii, xii, and xv. **(40 CFR 63.7550(c)(1))**
  - b. If a facility is complying with the fuel analysis, they must submit a compliance report with the information in SC VII.5.e.i through iii, v, viii, ix, xi, xiv, xv, xvi (delete if the Optional condition is deleted). **(40 CFR 63.7550(c)(2))**
  - c. If a facility is complying with the applicable emission limits with performance testing, they must submit a compliance report with the information in SC VII.5.e.i through iii, v, vi, vii, ix, xi, xiv, xv, xvi (delete if the Optional condition is deleted). **(40 CFR 63.7550(c)(3))**
  - d. If a facility is complying with an emission limit using a CMS the compliance report must contain the following information in SC VII.5.e.i through iii, iv, v, ix through xi, xiii through xv, xvi (delete if the Optional condition is deleted). **(40 CFR 63.7550(c)(4))**
  - e. The compliance reports must contain the following information, as applicable:
    - i. Company and Facility name and address. **(40 CFR 63.7550(c)(5)(i))**
    - ii. Process unit information, emission limitations, and operating parameter limitations. **(40 CFR 63.7550(c)(5)(ii))**
    - iii. Date of report and beginning and ending dates of the reporting period. **(40 CFR 63.7550(c)(5)(iii))**
    - iv. If the permittee uses a CMS, the permittee must include the monitoring equipment manufacturer(s) and model numbers and the date of the last CMS certification or audit. **(40 CFR 63.7550(c)(5)(v))**
    - v. The total fuel use by each individual boiler or process heater subject to an emission limit within the reporting period, including, but not limited to, a description of the fuel, whether the fuel has received a non-waste determination by the EPA or the basis for concluding that the fuel is not a waste, and the total fuel usage amount with units of measure. **(40 CFR 63.7550(c)(5)(vi))**
    - vi. If the permittee is conducting performance tests once every 3 years consistent with 40 CFR 63.7515(b) or (c), the date of the last 2 performance tests and a statement as to whether there have been any operational changes since the last performance test that could increase emissions. **(40 CFR 63.7550(c)(5)(vii))**
    - vii. A statement indicating that the permittee burned no new types of fuel in an individual boiler or process heater subject to an emission limit. **(40 CFR 63.7550(c)(5)(viii))**
    - viii. A summary of any monthly fuel analyses conducted to demonstrate compliance according to 40 CFR 63.7521 and 40 CFR 63.7530 for individual boilers or process heaters subject to emission limits, and any fuel specification analyses conducted according to 40 CFR 63.7521(f) and 40 CFR 63.7530(g). **(40 CFR 63.7550(c)(5)(x))**

- ix. If there are no deviations from any emission limits or operating limits in 40 CFR Part 63, Subpart DDDDD that apply to the permittee, a statement that there were no deviations from the emission limits or operating limits during the reporting period. **(40 CFR 63.7550(c)(5)(xi))**
- x. If there were no deviations from the monitoring requirements including no periods during which the CMS was out of control as specified in 40 CFR 63.8(c)(7), a statement that there were no deviations and no periods during which the CMS was out of control during the reporting period. **(40 CFR 63.7550(c)(5)(xii))**
- xi. If a malfunction occurred during the reporting period, the report must include the number, duration, and a brief description for each type of malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded. The report must also include a description of actions taken by the permittee during a malfunction of a boiler, process heater, or associated air pollution control device or CMS to minimize emissions in accordance with 40 CFR 63.7500(a)(3), including actions taken to correct the malfunction. **(40 CFR 63.7550(c)(5)(xiii))**
- xii. Include the date of the most recent tune-up for each unit subject to the requirement to conduct an annual or 5-year tune-up, as applicable, according to 40 CFR 63.7540(a)(10). Include the date of the most recent burner inspection if it was not done on an annual or 5-year period, as applicable, and was delayed until the next scheduled or unscheduled unit shutdown. **(40 CFR 63.7550(c)(5)(xiv))**
- xiii. For each reporting period, the compliance reports must include all of the calculated 30-day rolling average values for any CEMS (CO, HCl, SO<sub>2</sub>, or mercury) or PM CPMS used. **(40 CFR 63.7550(c)(5)(xvi))**
- xiv. Statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report. **(40 CFR 63.7550(c)(5)(xvii))**
- xv. For each instance of startup or shutdown include the information required to be monitored, collected, or recorded as required in SC VI.8. **(40 CFR 63.7550(c)(5)(xviii))**

**OPTIONAL – Delete if they are not doing emissions averaging.**

- xvi. If the permittee plans to demonstrate compliance by emissions averaging, certify the emission level achieved or the control technology employed is no less stringent than the level or control technology contained in the notification of compliance status in 40 CFR 63.7545(e)(5)(i). **(40 CFR 63.7550(c)(5)(xv))**

**OPTIONAL – If they are not using fuel analysis or performance testing to comply then delete.**

- 6. For each deviation from an emission limit or operating limit in 40 CFR Part 63, Subpart DDDDD that occurs at an individual boiler or process heater where not using a CMS to comply with that emission limit or operating limit, or from the work practice standards for periods of startup and shutdown, the compliance report must additionally contain the following information:
  - a. A description of the deviation and which emission limit or operating limit, or work practice standard from which the permittee deviated. **(40 CFR 63.7550(d)(1))**
  - b. Information on the number, duration, and cause of deviations (including unknown cause), as applicable, and the corrective action taken. **(40 CFR 63.7550(d)(2))**
  - c. If the deviation occurred during an annual performance test, provide the date the annual performance test was completed. **(40 CFR 63.7550(d)(3))**

**OPTIONAL – If not using CMS to comply then delete.**

- 7. For each deviation from an emission limit, operating limit, monitoring requirement, and the site-specific monitoring plan occurring at an individual boiler or process heater where using a CMS to comply with that emission limit or operating limit, the compliance report must additionally contain the following information:
  - a. The date and time that each deviation started and stopped and description of the nature of the deviation (i.e., what deviated from). **(40 CFR 63.7550(e)(1))**
  - b. The date and time that each CMS was inoperative, except for zero (low-level) and high-level checks. **(40 CFR 63.7550(e)(2))**
  - c. The date, time, and duration that each CMS was out of control, including the information in 40 CFR 63.8(c)(8). **(40 CFR 63.7550(e)(3))**
  - d. The date and time that each deviation started and stopped. **(40 CFR 63.7550(e)(4))**

- e. A summary of the total duration of the deviation during the reporting period and the total duration as a percent of the total source operating time during that reporting period. **(40 CFR 63.7550(e)(5))**
- f. A characterization of the total duration of the deviations during the reporting period into those that are due to control equipment problems, process problems, other known causes, and other unknown causes. **(40 CFR 63.7550(e)(6))**
- g. A summary of the total duration of CMS downtime during the reporting period and the total duration of CMS downtime as a percent of the total source operating time during that reporting period. **(40 CFR 63.7550(e)(7))**
- h. A brief description of the source for which there was a deviation. **(40 CFR 63.7550(e)(8))**
- i. A description of any changes in CMS, processes, or controls since the last reporting period for the source for which there was a deviation. **(40 CFR 63.7550(e)(9))**

#### **ALWAYS INCLUDE**

8. The permittee must submit the reports according to the procedures listed below:
  - a. Within 60 days after the date of completing each performance test, submit the results of the performance tests, including any associated fuel analyses, required by 40 CFR Part 63, Subpart DDDDD by using the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through the EPA's Central Data Exchange (CDX) ([www.epa.gov/cdx](http://www.epa.gov/cdx)). Performance test data must be submitted in the file format generated through use of the EPA's Electronic Reporting Tool (ERT) (see <http://www.epa.gov/ttn/chief/ert/index.html>). For any performance test conducted using test methods that are not listed on the ERT Web site, the owner or operator shall submit the results of the performance test to the Administrator. **(40 CFR 63.7550(h)(1))**
  - b. **OPTIONAL – If not using CEMS to comply then delete and renumber -** Within 60 days after the date of completing each CEMS performance evaluation test (defined in 40 CFR 63.2), submit the relative accuracy test audit (RATA) data to the EPA's CDX ([www.epa.gov/cdx](http://www.epa.gov/cdx)) by using CEDRI as mentioned in paragraph 40 CFR 63.7550(h)(1). Only RATA pollutants that are supported by the ERT (as listed on the ERT Web site) are subject to this requirement. For any performance evaluations with no corresponding RATA pollutants listed on the ERT Web site, the owner or operator shall submit the results of the performance evaluation to the Administrator. **(40 CFR 63.7550(h)(2))**
  - c. The permittee must submit all reports required by Table 9 of 40 CFR Part 63, Subpart DDDDD electronically using CEDRI that is accessed through the EPA's CDX ([www.epa.gov/cdx](http://www.epa.gov/cdx)). However, if the reporting form specific to 40 CFR Part 63, Subpart DDDDD is not available in CEDRI at the time that the report is due, submit the report to the Administrator at the appropriate address listed in 40 CFR 63.13. The permittee must begin submitting reports via CEDRI no later than 90 days after the form becomes available in CEDRI. **(40 CFR 63.7550(h)(3))**

**Only include if there are any stack testing conditions or fuel analysis. Items in the parenthesis in red font are optional and should only be used if there are units that have CEMS, otherwise delete.**

9. 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. The reports for all performance tests must include all applicable information required in 40 CFR 63.7550. **(R 336.1213(3)(c), R 336.2001(5), 40 CFR 63.7515(f))**

**See Appendix 8**

#### **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 DDDDD for Industrial, Commercial, and Institutional Boilers and Process Heaters. **(40 CFR Part 63, Subparts A and DDDDD)**

**Footnotes:**

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

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