# ALASKA DEPARTMENT OF ENVIRONMENTAL CONSERVATION

# Standard Permit Condition IX – Visible Emissions and Particulate Matter Monitoring Plan for Liquid Fuel-Burning Equipment and Flares

**Permit Condition for Air Quality Permits**

**Adopted by Reference in 18 AAC 50.346**

**August 25, 2004**

**Revised {*adoption date of the regulations*} [JULY 22, 2020]**

# Standard Permit Condition IX –Visible Emissions and Particulate Matter Monitoring Plan for Liquid Fuel-Burning Equipment and Flares

**Emissions Unit or Stationary Source Categories This Condition Applies to:**

- Conditions 1 and 6 apply to fuel-burning equipment subject to the visible emissions and particulate matter (PM) standards of 18 AAC 50.055(a)(1) and (b)(1).
- Conditions 2 **through**[–] 4 apply to fuel-burning equipment that burn only liquid fuel**, but not used oil fuels**.
- Condition 5 applies to flares.
- Conditions 7 **through**[–] 9 apply to stationary engines and turbines that burn only liquid fuel.
- Conditions 10 **through**[–] 12 apply to boilers and heaters that burn only liquid fuel.
- **Conditions 13 through 15 apply to fuel-burning equipment that burn used oil fuels.**
- Condition **16** [13] applies to fuel-burning equipment capable of burning fuel gas and back- up liquid fuel (i.e., dual fuel-fired emissions units).

Standard Permit Condition (SPC) IX does not apply to emissions units that are insignificant under 18 AAC 50.326(e)-(i). In addition, SPC IX provides specific monitoring exemptions, as well as monitoring triggers, for emissions units that are potentially insignificant due to actual or potential emissions but are significant per 18 AAC 50.326(d)(1) (e.g., standby, intermittently operated, emergency emissions units or small units that are included in the permit due to construction permit and/or federal requirements).

The Department will use SPC IX in each operating permit unless the Department determines that emissions unit- or stationary source-specific conditions more adequately meet the requirements of 18 AAC 50.

**Circumstances where emissions unit- or stationary source-specific conditions more adequately meet 18 AAC 50 include the following:**

1. If the Department finds that particulate matter and visible emissions data available for the emissions units or for the equipment make and model is sufficient to demonstrate that there is a different relationship between opacity and particulate matter than that used as the basis for SPC IX;
2. Emissions unit-specific conditions are requested for Conditions 7 –[-] 9 for turbines with very wide stacks;
3. The Department determines that a different frequency of visible emissions monitoring is necessary to assure compliance because of the characteristics of the emissions unit;
4. The Department determines that visible emissions monitoring is necessary during a particular phase of operation to assure that the emissions unit complies with the

applicable standard; and

5. The Department determines that compliance with the state Visible **Emissions** [EMISSION] or PM standard[S] is assured by following a more stringent opacity or PM limit and associated MR&R requirements imposed by other conditions in the permit.

**Permit Wording:**

**Visible Emissions Standard**

**1. Industrial Process and Fuel-Burning Equipment Visible Emissions.** The Permittee shall not cause or allow visible emissions, excluding condensed water vapor, emitted from EU ID(s) <*insert EU ID numbers*> listed in Table <*insert cross reference to Table of Emissions Unit Inventory*> to reduce visibility through the exhaust effluent by more than 20 percent averaged over any six consecutive minutes.

[18 AAC 50.040(j)(4), 50.055(a)(1), 50.326(j)(3), & 50.346(c)]
[40 C.F.R. 71.6(a)(1)]

1.1. For EU ID(s) <*insert EU ID numbers of significant liquid fuel-burning equipment*>, monitor, record, and report in accordance with Conditions 2 through 4.

1.2. For each of EU ID(s) <*insert EU ID numbers of emissions units subject to conditions that keep the EUs from reaching the significant emissions thresholds in 18 AAC 50.326(e)*>, as long as the emissions unit does not exceed the limit in Condition(s) <*insert condition number that state the emissions unit's operating limit that also keeps the unit from reaching the significant emissions thresholds in 18 AAC 50.326(e)*>, monitoring shall consist of an annual compliance certification under Condition <*insert condition number for Annual Compliance Certification*> for the visible emissions standard based on reasonable inquiry. Otherwise, comply with Condition 1.3.

1.3. For each of EU ID(s) <*insert EU ID numbers of emissions units that are significant per 18 AAC 50.326(d)(1) but are otherwise insignificant based on historical actual emissions per 18 AAC 50.326(e), and EU ID numbers of emissions units subject to conditions that keep the EUs from reaching the significant emissions thresholds in 18 AAC 50.326(e)*>, as long as actual emissions from the emissions unit are less than the significant emissions thresholds listed in 18 AAC 50.326(e)[1] during any consecutive 12-month period, monitoring shall consist of an annual compliance certification under Condition <*insert condition number for Annual Compliance Certification*> **for** [WITH] the visible emissions standard based on reasonable inquiry. The Permittee shall report in the operating report under Condition <*insert condition number for SPC VII – Operating Reports*> if any of EU IDs <*insert EU ID number(s)*> reaches any of the significant emissions thresholds [LISTED IN 18 AAC 50.326(e)] and monitor, record, and report in accordance with Conditions 2 through 4 for the remainder of the permit term for that emissions unit.

[1] <*If requested by Permittee, add operational hours or amount of fuel burned per 12-month rolling period equivalent to the worst-case significant emissions threshold in 18 AAC 50.326(e) for each affected emissions unit.*>

1.4. For each of EU ID(s) <*insert EU ID numbers of emissions units with potential emissions that are insignificant based on unrestricted operations but are significant per 18 AAC 50.326(d)(1)*>, monitoring shall consist of an annual compliance certification under Condition <*insert condition number for Annual Compliance Certification*> for the visible emissions standard based on reasonable inquiry.

1.5. For EU ID(s) <*insert EU ID numbers of significant dual fuel-burning equipment*>, burn gas as the primary fuel. Monitoring for these emissions unit(s) shall consist of a statement in each operating report required under Condition <*insert condition number for SPC VII – Operating Reports*> indicating whether each of these emissions unit(s) burned gas as the primary fuel during the period covered by the report. If any of these units operated on a back-up liquid fuel during the period covered by the report, the Permittee shall monitor, record, and report in accordance with Condition **16** [13] for that emissions unit.

1.6. For EU ID(s) <*insert EU ID numbers of flares*>, monitor, record, and report in accordance with Condition 5.

[18 AAC 50.040(j)(4), 50.326(j)(3), & 50.346(c)]
[40 C.F.R. 71.6(a)(3)]

**Visible Emissions Monitoring, Recordkeeping, and Reporting (MR&R)**

*Liquid Fuel-Burning Equipment*

**2. Visible Emissions Monitoring.** When required by any of Conditions 1.1 through 1.3, or in the event of replacement[2] during the permit term, the Permittee shall observe the exhaust of EU ID(s) <*insert EU ID numbers*> for visible emissions using either the Method 9 Plan under Condition 2.3 or the Smoke/No-Smoke Plan under Condition 2.4.

2.1. The Permittee may change the visible emissions monitoring plan for an emissions unit at any time unless prohibited from doing so by Condition 2.5.

2.2. The Permittee may, for each unit, elect to continue the visible emissions monitoring schedule specified in Conditions 2.3.b through 2.3.e or Conditions 2.4.b through 2.5 <*as applicable*> that remains in effect from a previous permit.

2.3. **Method 9 Plan.** For all observations in this plan, observe the emissions unit exhaust following 40 C.F.R. 60, Appendix A-4, Method 9 for 18 minutes to obtain 72 consecutive 15-second opacity observations.[3]

a. First Method 9 Observation. Except as provided in Condition 2.2 or Condition 2.5.c(ii), observe the exhaust(s) of EU ID(s) <*insert EU ID number(s) from Conditions 1.1 through 1.3*> according to the following criteria:

(i) For any unit, observe emissions unit exhaust within 14 calendar days after changing from the Smoke/No-Smoke Plan of Condition 2.5.

[2] *"Replacement,"* as defined in 40 C.F.R. 51.166(b)(32).
[3] Visible emissions observations are not required during emergency operations.

(ii) Except as provided in Condition 2.3.a(iii), for any of EU IDs <*insert EU IDs from Condition 1.1*>, observe exhaust within six months after the effective date of this permit.

(iii) For any unit replaced, observe exhaust within 60 days of the newly installed emissions unit becoming fully operational.[4] Except as provided in Condition 2.3.e, after the First Method 9 observation:

(A) For EU ID(s) <*insert EU IDs from Condition 1.1*>, continue with the monitoring schedule of the replaced emissions unit; and

(B) For EU ID(s) <*insert EU IDs from Condition 1.2 and 1.3*> comply with Conditions 1.2 and 1.3 <*as applicable*>.

(iv) For each of EU IDs <*insert EU IDs from Conditions 1.2 and 1.3*>, observe the exhaust of the emissions unit within 30 days after the end of the calendar month during which monitoring was triggered under **Condition** [CONDITION(S) 1.2 OR] 1.3; or for an emissions unit with intermittent operations, within the first 30 days during the unit's next scheduled operation.

b. Monthly Method 9 Observations. After the first Method 9 observation conducted under Condition 2.3.a, perform observations at least once in each calendar month that the emissions unit operates.

c. Semiannual Method 9 Observations. After at least three monthly observations under Condition 2.3.b, unless a six-consecutive-minute average opacity is greater than 15 percent and one or more individual observations are greater than 20 percent, perform semiannual observations

(i) no later than seven months, but not earlier than five months, after the preceding observation; or

(ii) for an emissions unit with intermittent operations, during the next scheduled operation immediately following seven months after the preceding observation.

d. Annual Method 9 Observations. After at least two semiannual observations under Condition 2.3.c, unless a six-consecutive-minute average opacity is greater than 15 percent and one or more individual observations are greater than 20 percent, perform annual observations

(i) no later than 12 months, but not earlier than 10 months, after the preceding observation; or

(ii) for an emissions unit with intermittent operations, during the next scheduled operation immediately following 14 months after the preceding observation.

[4] "*Fully operational*" means upon completion of all functionality checks and commissioning after unit installation. "*Installation*" is complete when the unit is ready for functionality checks to begin.

e. Increased Method 9 Frequency. If a six-consecutive-minute average opacity is observed during the most recent set of observations to be greater than 15 percent and one or more individual observations are greater than 20 percent, then increase or maintain the observation frequency for that emissions unit to at least monthly intervals as described in Condition 2.3.b, and continue monitoring in accordance with the Method 9 Plan.

2.4. **Smoke/No Smoke Plan.** Observe the emissions unit exhaust for the presence or absence of visible emissions, excluding condensed water vapor.

a. Initial Monitoring Frequency. Observe the emissions unit exhaust during each calendar day that the emissions unit operates for a minimum of 30 days.

b. Reduced Monitoring Frequency. If the emissions unit operates without visible emissions for 30 consecutive operating days as required in Condition 2.4.a, observe the emissions unit exhaust at least once in every calendar month that the emissions unit operates.

c. Smoke Observed. If visible emissions are observed, comply with Condition 2.5.

2.5. **Corrective Actions Based on Smoke/No Smoke Observations.** If visible emissions are present in the emissions unit exhaust during an observation performed under the Smoke/No Smoke Plan of Condition 2.4, then the Permittee shall either begin the Method 9 Plan of Condition 2.3, or

a. initiate actions to eliminate visible emissions from the emissions unit exhaust within 24 hours of the observation;

b. keep a written record of the starting date, the completion date, and a description of the actions taken to reduce visible emissions; and

c. after completing the actions required under Condition 2.5.a,

(i) conduct smoke/no smoke observations in accordance with Condition 2.4

(A) at least once per day for the next seven operating days and, if applicable, until the initial 30-day observation period of Condition 2.4.a is completed; and

(B) continue as described in Condition 2.4.b; or

(ii) If [THE ACTIONS TAKEN UNDER CONDITION 2.5.A DO NOT ELIMINATE THE VISIBLE EMISSIONS, OR IF] subsequent visible emissions are observed under the schedule of Condition 2.5.c(i)(A), then observe the emissions unit exhaust using the Method 9 Plan unless the Department gives written approval to resume observations under the Smoke/No Smoke Plan. After observing visible emissions and making observations under the Method 9 Plan, the Permittee may at any time take corrective action [THAT] **to eliminate** [ELIMINATES] visible emissions and restart the Smoke/No Smoke Plan under Condition 2.4.a.

(iii) **For EUs that have no stack or are allowed by the Department to resume observations under the Smoke/No Smoke Plan, if subsequent**

**visible emissions are observed under the schedule of Condition 2.5.c(i)(A), the Permittee shall continue to take corrective action(s) to eliminate visible emissions and restart the Smoke/No Smoke Plan under Condition 2.4.a.**

[18 AAC 50.040(j)(4), 50.326(j)(3), & 50.346(c)]
[40 C.F.R. 71.6(a)(3)(i)]

**3. Visible Emissions Recordkeeping.** The Permittee shall keep records as follows:

3.1. For all Method 9 Plan observations,

a. the observer shall record the following:

(i) the name of the stationary source, emissions unit and location, emissions unit type, observer's name and affiliation, and the date on the Visible Emissions Observation Form in <*insert Visible Emissions Observation Form Section number*>;

(ii) the time, estimated distance to the emissions location, sun location, approximate wind direction, estimated wind speed, description of the sky condition (presence and color of clouds), plume background, and operating rate (load or fuel consumption rate or best estimate, if unknown) on the sheet at the time opacity observations are initiated and completed;

(iii) the presence or absence of an attached or detached plume and the approximate distance from the emissions outlet to the point in the plume at which the observations are made;

(iv) opacity observations to the nearest five percent at 15-second intervals on the Visible Emissions Observation Form in <*insert Visible Emissions Observation Form Section number*>, and

(v) the minimum number of observations required by the permit; each momentary observation recorded shall be deemed to represent the average opacity of emissions for a 15-second period.

b. To determine the six-consecutive-minute average opacity,

(i) divide the observations recorded on the record sheet into sets of 24 consecutive observations;

(ii) sets need not be consecutive in time and in no case shall two sets overlap;

(iii) for each set of 24 observations, calculate the average by summing the opacity of the 24 observations and dividing this sum by 24; and

(iv) record the average opacity on the sheet.

c. Calculate and record the highest six-consecutive- and 18-consecutive-minute average opacities observed.

3.2. If using the Smoke/No Smoke Plan of Condition 2.4, record the following information in a written log for each observation and submit copies of the recorded information upon request of the Department:

a. the date and time of the observation;

b. the EU ID of the emissions unit observed;

c. whether visible emissions are present or absent in the emissions unit exhaust;

d. a description of the background to the exhaust during the observation; if the emissions unit starts operation on the day of the observation, the startup time of the emissions unit;

e. name and title of the person making the observation; and

f. operating rate (load or fuel consumption rate or best estimate, if unknown).

3.3. The records required by Conditions 3.1 and 3.2 may be kept in electronic format.

[18 AAC 50.040(j)(4), 50.326(j)(3), & 50.346(c)]
[40 C.F.R. 71.6(a)(3)(ii)]

**4. Visible Emissions Reporting.** The Permittee shall report as follows:

4.1. In the first operating report required in Condition <*insert cross reference to SPC VII – [-] Operating Reports condition number*> under this permit term, the Permittee shall state the intention to either continue the visible emissions monitoring schedule in effect from the previous permit or reset the visible emissions monitoring schedule.

4.2. Include in each operating report required under Condition <*insert condition number for SPC VII – Operating Reports*> for the period covered by the report:

a. which visible emissions plan of Condition 2 was used for each emissions unit; if more than one plan was used, give the time periods covered by each plan;

b. for all Method 9 Plan observations:

(i) copies of the observation results (i.e., opacity observations) for each emissions unit, except for the observations the Permittee has already supplied to the Department; and

(ii) a summary to include:

(A) number of days observations were made;

(B) highest six-consecutive- and 18-consecutive-minute average opacities observed; and

(C) dates when one or more observed six-consecutive-minute average opacities were greater than 20 percent;

c. for each emissions unit under the Smoke/No Smoke Plan, the number of days that smoke/no smoke observations were made and which days, if any, that visible emissions were observed; and

d. a summary of any monitoring or record keeping required under Conditions 2 and 3 that was not done.

4.3. Report under Condition <*insert condition number for SPC III –[-] Excess Emissions and Permit Deviation Reports*>:

a. the results of Method 9 observations that exceed 20 percent average opacity for

any six-consecutive-minute period; and

b. if any monitoring under Condition 2 was not performed when required, **notify the Department** [REPORT] within three days of the date the monitoring was required **and report under Condition <*insert condition number for SPC III – Excess Emissions and Permit Deviation Reports*>**.

[18 AAC 50.040(j)(4), 50.326(j)(3), & 50.346(c)]
[40 C.F.R. 71.6(a)(3)(iii)]

*Flares*

**5. Visible Emissions MR&R.** The Permittee shall monitor, record, and report as follows:

5.1. Observe flare events[5] on EU ID(s) <*insert flare EU ID numbers*> for visible emissions following 40 C.F.R. 60, Appendix A-4, Method 9 for 18 minutes to obtain 72 consecutive 15-second opacity observations according to the following schedule:

a. Conduct an initial visible emissions observation on EU ID(s) <*insert EU IDs of flares that have not been observed*> within 12 months of the effective date of this permit.

b. Conduct subsequent visible emissions observations within 14 months of, but not earlier than three months after, the preceding flare event visible emissions observation.

c. If there are no flare events that meet the requirements of **Conditions** [CONDITION] 5.1.a or 5.1.b, the Permittee shall observe the next daylight flare event.

5.2. Record the following information for each observed flare event:

a. flare EU ID number;

b. results of the Method 9 observations;

c. reason for flaring;

d. date, beginning and ending time of event; and

e. volume of gas flared.

5.3. The records required by Condition 5.2 may be kept in electronic format.

5.4. Monitoring of a flare event may be postponed for safety or weather reasons, or because a qualified observer is not available.

5.5. Include the following in the operating report required by Condition <*insert condition number for SPC VII –[-] Operating Reports*> for the period covered by the report:

a. copies of the records required by Condition 5.2; and

b. if an annual flare event observation required by Condition 5.1.a or Condition 5.1.b has not been fulfilled for the year and/or monitoring of a flare event is postponed, an explanation of the reason the event was not monitored.

[5] For purposes of this permit, a *"flare event"* is flaring of gas during daylight for greater than one hour as a result of scheduled release operations; i.e., maintenance or well testing activities. It does not include non-scheduled release operations, i.e. process upsets, emergency flaring, or de-minimis venting of gas incidental to normal operations.

5.6. Report under Condition <*insert condition number for SPC III –[-] Excess Emissions and Permit Deviation Reports*> **whenever**

a. [WHENEVER ]the visible emissions standard in Condition 1 is exceeded; or

b. the monitoring required under Condition 5.1 is not completed, except as allowed under Condition 5.4.

5.7. If no flare events are monitored during a certification period, the Permittee shall certify compliance under Condition <*insert condition number for Annual Compliance Certification*> with the visible emissions standard in Condition 1 based on reasonable inquiry.

[18 AAC 50.040(j)(4), 50.326(j)(3), & 50.346(c)]
[40 C.F.R. 71.6(a)(3)(i)-(iii)]

**Particulate Matter (PM) Emissions Standard**

**6. Industrial Process and Fuel-Burning Equipment PM Emissions.** The Permittee shall not cause or allow PM emitted from EU ID(s) <*insert EU ID numbers*> listed in Table <*insert cross reference to Table of Emissions Unit Inventory*> to exceed 0.05 grains per cubic foot of exhaust gas corrected to standard conditions and averaged over three hours.

[18 AAC 50.040(j)(4), 50.055(b)(1), 50.326(j) (3), & 50.346(c)]
[40 C.F.R. 71.6(a)(1)]

6.1. For EU ID(s) <*insert EU ID numbers of significant liquid fuel-burning engines and turbines*>, monitor, record and report in accordance with Conditions 7 through 9.

6.2. For EU ID(s) <*insert EU ID numbers of significant liquid fuel-burning heaters and boilers*>, monitor, record and report in accordance with Conditions 10 through 12.

6.3. For each of EU ID(s) <*insert EU ID numbers of emissions units subject to conditions that keep the EUs from reaching the significant emissions thresholds in 18 AAC 50.326(e)*>, as long as the emissions unit does not exceed the limits in Condition(s) <*insert condition number that state the emissions unit's operating limit that also keeps the unit from reaching the significant emissions thresholds in 18 AAC 50.326(e)*>, monitoring shall consist of an annual compliance certification under Condition <*insert condition number for Annual Compliance Certification*> for the PM emissions standard based on reasonable inquiry. Otherwise, comply with Condition 6.4.

6.4. For each of EU ID(s) <*insert EU ID numbers of emissions units that are significant per 18 AAC 50.326(d)(1) but are otherwise insignificant based on historical actual emissions per 18 AAC 50.326(e), and EU ID numbers of emissions units subject to conditions that keep the EUs from reaching the significant emissions thresholds in 18 AAC 50.326(e)*>, as long as actual emissions from the emissions unit are less than the significant emissions thresholds listed in 18 AAC 50.326(e)[6] during any consecutive 12-month period, monitoring shall consist of an annual compliance certification under Condition <*insert condition number for Annual Compliance*

[6] <If requested by Permittee, add operational hours or amount of fuel burned per 12-month rolling period equivalent to the worst-case significant emissions threshold in 18 AAC 50.326(e) for each affected emissions unit.>

*Certification*> for the PM emissions standard based on reasonable inquiry. The Permittee shall report in the operating report under Condition <*insert condition number for SPC VII –[-] Operating Reports*> if any of EU ID(s) <*insert EU ID number(s)*> reaches any of the significant emissions thresholds and monitor, record, and report in accordance with Conditions 7 through 9 and/or Conditions 10 through 12 <*as applicable*> for the remainder of the permit term for that emissions unit.

6.5. For each of EU ID(s) <*insert EU ID numbers of emissions units with potential emissions that are insignificant based on unrestricted emissions but are significant per 18 AAC 50.326(d)(1)>,* the Permittee must annually certify compliance under Condition <*insert condition number for Annual Compliance Certification*> for the PM standard based on reasonable inquiry.

6.6. For EU ID(s) <*insert EU ID numbers of significant dual fuel-burning equipment*>, the Permittee shall comply with Condition 1.5.

6.7. For EU ID(s) <*insert EU ID numbers of flares*>, the Permittee shall comply with Condition 5.

6.8. **For EU ID(s) <*insert EU ID numbers for Used oil-burning equipment*>, the Permittee shall monitor, record, and report in accordance with Conditions 13 through 15.**

[18 AAC 50.040(j)(4), 50.326(j)(3), & 50.346(c)]
[40 C.F.R. 71.6(a)(3)]

**PM MR&R**

*Liquid Fuel-Burning Engines and Turbines*

**7. PM Monitoring.** The Permittee shall conduct source tests on EU ID(s) <*insert EU ID numbers for liquid fuel-burning engines and turbines* ***in Condition 6.1***>, **EU IDs <*pick only the liquid fuel-fired turbines and engines from Condition 6.4*> (when required by Condition 6.4), and EU IDs <*insert EU ID numbers of significant dual fuel-burning engines and turbines*> (when required by Condition 16.3.a),** to determine the concentration of PM in the exhaust of each of the emissions units as follows:

7.1. If the result of any Method 9 observation conducted under Condition 2.3 for any of EU ID(s) <*insert EU ID numbers* for *liquid fuel-burning engines and turbines* ***in Condition 6.1***> **and EU IDs <*pick only the liquid fuel-fired turbines and engines in Condition 6.4*> (when required by Condition 6.4)** is greater than the criteria of Conditions 7.2.a or 7.2.b, or if the Method 9 observation conducted under Condition **16.3** [13.3] for EU ID(s) <*insert EU ID numbers of dual fuel- burning* ***engines and turbines*** *[EQUIPMENT]*> exceeds the standard in Condition 1, the Permittee shall, within six months of that Method 9 observation, either:

a. take corrective action and observe the emissions unit exhaust under load conditions comparable to those when the criteria were exceeded, following 40 C.F.R. 60, Appendix A-4 Method 9 for 18 minutes to obtain 72 consecutive 15-second opacity observations, to show that emissions are no longer greater than the criteria of Condition 7.2; or

b. except as exempted under Condition 7.4, conduct a PM source test according to requirements set out in <*insert Section number for General Source Testing and Monitoring*>.

7.2. Take corrective action or conduct a PM source test, in accordance with Condition 7.1, if any Method 9 observation under Condition 2.3 results in an 18-minute average opacity greater than

a. 20 percent for an emissions unit with an exhaust stack diameter that is equal to or greater than 18 inches; or

b. 15 percent for an emissions unit with an exhaust stack diameter that is less than 18 inches, unless the Department has waived this requirement in writing.

7.3. During each one-hour PM source test run under Condition 7.1.b, observe the emissions unit exhaust for 60 minutes in accordance with Method 9 and calculate the highest 18-consecutive-minute average opacity measured during each one-hour test run. Submit a copy of these observations with the source test report.

7.4. The PM source test requirements in Condition 7.1.b are waived for an emissions unit if:

a. a source test on that unit has shown compliance with the PM standard during this permit term; or

b. corrective action was taken to reduce visible emissions and two consecutive 18-minute Method 9 visible emissions observations (as described in Condition 2.3) conducted thereafter within a six-month period show visible emissions less than the threshold in Condition 7.2.

[18 AAC 50.040(j)(4), 50.326(j)(3), & 50.346(c)]
[40 C.F.R. 71.6(a)(3)(i)]

**8. PM Recordkeeping.** The Permittee shall comply with the following:

8.1. Within 30 calendar days of startup, the Permittee shall record the exhaust stack diameter(s) of EU ID(s) <*list EU ID numbers of new units whose stack diameters have not yet been reported*>.

8.2. Keep records of the results of any source test and visible emissions observations conducted under Condition 7.

[18 AAC 50.040(j)(4), 50.326(j)(3), & 50.346(c)]
[40 C.F.R. 71.6(a)(3)(ii)]

**9. PM Reporting.** The Permittee shall report as follows:

9.1. Notify the Department of any Method 9 observation results that are greater than the threshold of either Condition 7.2.a or 7.2.b within 30 days of the end of the month in which the observations occurred. Include the dates, EU ID(s), and results when an observed 18-minute average opacity was greater than an applicable threshold in Condition 7.2.

9.2. In each operating report under Condition <*insert condition number for SPC VII – [-] Operating Reports*>, include:

a. a summary of the results of any PM source test and visible emissions observations conducted under Condition 7; and

b. copies of any visible emissions observation results greater than the thresholds of Condition 7.2, if they were not already submitted.

9.3. Report the stack diameter(s) of EU IDs <*list EU ID numbers of new units whose stack diameters have not yet been reported*> in the next operating report under Condition <*insert condition number for SPC VII –[-] Operating Reports*> following the deadline in Condition 8.1 for collecting the stack diameter records.

9.4. Report in accordance with Condition <*insert condition number for SPC III –[-] Excess Emissions and Permit Deviation Reports*>:

a. anytime the results of a PM source test exceed the PM emissions standard in Condition 6; or

b. if the requirements under Condition 7.1 were triggered and the Permittee did not comply on time with either Condition 7.1.a or 7.1.b. Report the deviation within 24 hours of the date compliance with Condition 7.1 was required.

[18 AAC 50.040(j)(4), 50.326(j)(3), & 50.346(c)]
[40 C.F.R. 71.6(a)(3)(iii)]

*Liquid Fuel-Burning Boilers and Heaters*

**10. PM Monitoring.** The Permittee shall conduct source tests on EU ID(s) <*insert EU ID numbers for liquid fuel-burning boilers and heaters* ***in Condition 6.2***>, **EU IDs <*pick only the liquid fuel-fired boilers and heaters in Condition 6.4*> (when required by Condition 6.4), and EU IDs <*insert EU ID numbers of significant dual fuel-burning boilers and heaters*> (when required by Condition 16.3.a),** to determine the concentration of PM in the exhaust of each of the emissions units as follows:

10.1. If the result of any Method 9 observation conducted under Condition 2.3 for any of EU ID(s) <*insert EU ID numbers* for *liquid fuel-burning boilers and heaters* ***listed in Condition 10***> results in an 18-minute average opacity greater than 20 percent opacity, the Permittee shall, within six months of that Method 9 observation, either:

a. take corrective action and observe the emissions unit exhaust under load conditions comparable to those when the criteria were exceeded, following 40 C.F.R. 60, Appendix A-4 Method 9 for 18 minutes to obtain 72 consecutive 15-second opacity observations, to show that emissions are no longer greater than an 18-minute average opacity of 20 percent; or

b. except as exempted under Condition 10.3, conduct a PM source test according to the requirements in <*insert General Source Testing and Monitoring Requirements Section number*>.

10.2. During each one-hour PM source test run under Condition 10.1, observe the emissions unit exhaust for 60 minutes in accordance with Method 9 and calculate the highest 18-consecutive-minute average opacity measured during each one-hour test run. Submit a copy of these observations with the source test report.

10.3. The PM source test requirement in Condition 10.1 is waived for an emissions unit if:

a. a source test on that unit has shown compliance with the PM standard during this permit term, or

b. corrective action was taken to reduce visible emissions and two consecutive 18-minute Method 9 visible emissions observations (as described in Condition 2.3) conducted thereafter within a six-month period show visible emissions less than the threshold in Condition 10.1.

[18 AAC 50.040(j)(4), 50.326(j)(3), & 50.346(c)]
[40 C.F.R. 71.6(a)(3)(i)]

**11. PM Recordkeeping.** The Permittee shall keep records of the results of any source test and visible emissions observations conducted under Condition 10.

[18 AAC 50.040(j)(4), 50.326(j)(3), & 50.346(c)]
[40 C.F.R. 71.6(a)(3)(ii)]

**12. PM Reporting.** The Permittee shall report as follows:

12.1. Notify the Department of any Method 9 observation results that are greater than the threshold of Condition 10.1 within 30 days of the end of the month in which the observations occurred. Include the dates, EU ID(s), and results when an observed 18-minute average opacity was greater than the threshold in Condition 10.1.

12.2. In each operating report required by Condition <*insert condition number for SPC VII – Operating Reports*>, include:

a. a summary of the results of any source test and visible emissions observations conducted under Condition 10; and

b. copies of any visible emissions observation results greater than the threshold in Condition 10.1, if they were not already submitted.

12.3. Report in accordance with Condition <*insert condition number for SPC III –[-] Excess Emissions and Permit Deviation Reports*> any time the results of a source test exceed the PM emission standard in Condition 6.

[18 AAC 50.040(j)(4), 50.326(j)(3), & 50.346(c)]
[40 C.F.R. 71.6(a)(3)(iii)]

***Used Oil-Burning Equipment***

**13. PM Monitoring. For EU ID(s) <*insert EU ID numbers for Used oil-burning equipment*>, the Permittee shall demonstrate compliance with the PM standard in Condition 6, as follows:**

13.1. **Measure and record the ash content of a representative sample of the used oil at least once every three months when EU ID(s) <*insert EU ID numbers for Used oil-burning equipment*> is/are in operation using ASTM D482, ASTM UOP1016, or an appropriate alternative method adopted in 18 AAC 50.035(c).**

13.2. **If the results from four consecutive samples analyzed under Condition 13.1 are each equal to or below 0.18 percent, sampling may be reduced to:**

a. **Once within a 12-month period after the preceding sampling when EU**

**ID(s) <*insert EU ID numbers for Used oil-burning equipment*> operate(s) during the 12-month period; or**

b. **During the next operation of EU ID(s) <*insert EU ID numbers for Used oil-burning equipment*> immediately following 12 months after the preceding sampling.**

13.3. **If the result from any sample analyzed under Condition 13.1 is greater than 0.18 percent, the Permittee shall either:**

a. **Blend and determine the appropriate ratio of the used oil to other fuel oil to achieve the maximum allowable ash content of 0.18 percent required to comply with Condition 6; or**

b. **Conduct a PM source test according to the requirements in <*insert General Source Testing and Monitoring Requirements Section number*>.**

**[18 AAC 50.040(j)(4), 50.326(j)(3), & 50.346(c)]**
**[40 C.F.R. 71.6(a)(3)(i)]**

**14. PM Recordkeeping. The Permittee shall keep records of the following:**

14.1. **Dates and results of the ash content analyses conducted under Conditions 13.1 through 13.3.a.**

14.2. **For used oil and fuel oil blend required in Condition 13.3.a,**

a. **Dates when fuel blending occurred;**

b. **Quantities of used oil (gallons) and quantities of other fuel oil (gallons) blended for combustion in EU ID(s) <*insert EU ID numbers for Used oil-burning equipment*>; and**

c. **the calculations used to demonstrate appropriate ratio of used oil to other fuel oil for compliance with Condition 6.**

14.3. **If complying with Condition 13.3.b, keep records of the results of the PM source test conducted under Condition 13.3.b.**

**[18 AAC 50.040(j)(4), 50.326(j)(3), & 50.346(c)]**
**[40 C.F.R. 71.6(a)(3)(ii)]**

**15. PM Reporting. The Permittee shall report as follows:**

15.1. **Include in the operating report required by Condition <*insert condition number for SPC VII – Operating Reports*>, for each month covered by the report:**

a. **a summary of the ash content records and the blending records from Conditions 14.1 and 14.2; and**

b. **a summary of the results of any PM source test conducted under Condition 13.3.b.**

15.2. **Report in accordance with Condition <*insert condition number for SPC III – Excess Emissions and Permit Deviation Reports*> any time the results of a source test exceed the PM emission standard in Condition 6 or if any of Conditions 13 through 15.1 are not met.**

**[18 AAC 50.040(j)(4), 50.326(j)(3), & 50.346(c)]**
**[40 C.F.R. 71.6(a)(3)(iii)]**

**Visible Emissions & PM MR&R**
*Dual Fuel-Burning Equipment*

***Note – this section used to be numbered 13; formatting does not allow for the change to be easily noted.***

**16.** The Permittee shall monitor, record and report the monthly hours of operation of EU ID(s) <*insert EU IDs of dual fuel-burning equipment*> when operating on a back-up liquid fuel.

16.1. For any of EU ID(s) <*insert EU ID numbers of dual fuel-burning equipment*> that does not exceed 400 hours of operations per calendar year on a back-up liquid fuel, monitoring of compliance for visible emissions and PM shall consist of an annual compliance certification under Condition <*insert Annual Compliance Certification condition number*> based on reasonable inquiry.

16.2. For any of EU ID(s) <*insert EU ID numbers of dual fuel-burning equipment*>, notify the Department and begin monitoring the affected emissions unit in accordance with Condition **16.3** [13.3] no later than 15 days after the end of a calendar month in which the cumulative hours of operation for the calendar year exceed any multiple of 400 hours on a back-up liquid fuel; or for an emissions unit with intermittent back-up fuel use, during the next scheduled operation on back-up liquid fuel.

16.3. When required to do so by Condition **16.2** [13.2], observe the emissions unit exhaust, following 40 C.F.R. 60, Appendix A-4 Method 9, for 18 minutes to obtain 72 consecutive 15-second opacity observations.

a. If the observation exceeds the standard in Condition 1, monitor as described in Condition 7 or Condition 10 <*as applicable, by the type of emissions unit*>.

b. If the observation does not exceed the standard in Condition 1, no additional monitoring is required until the cumulative hours of operation exceed each subsequent multiple of 400 hours on back-up liquid fuel during a calendar year.[7]

16.4. Keep records and report in accordance with Conditions <*edit list as applicable*> 3, 4, 8, 9, 11, and/or 12.

16.5. Report under Condition <*insert condition number for SPC III –[-] Excess Emissions and Permit Deviation Reports*> if the Permittee fails to comply with any of Conditions **16.2, 16.3, and 16.4** [13.2, 13.3, AND 13.4].

[18 AAC 50.040(j)(4), 50.326(j)(3), & 50.346(c)]
[40 C.F.R. 71.6(a)(3)(i)-(iii)]

[7] If the requirement to monitor is triggered more than once in a calendar month, only one Method 9 observation is required to be conducted by the stated deadline for that month.

## STATEMENT OF BASIS FOR THE PERMIT CONDITIONS

### Conditions 1, 2 through 5, and [&] 16 [13], Visible Emissions Standard and MR&R

**Legal Basis:** These conditions require compliance with the applicable requirements in 18 AAC 50.055(a).

- 18 AAC 50.055(a) applies to the operation of fuel-burning equipment and industrial processes. EU IDs <*insert EU ID numbers*> are fuel-burning equipment ***(****or industrial processes****)***.

U.S. EPA approved the addition of these standards to the State Implementation Plan (SIP), as noted in 40 C.F.R. 52.70. The Department included permit conditions for MR&R as required by 40 CFR 71.6(a)(3) and 71.6(c)(1).

**Factual Basis:** Condition 1 prohibits the Permittee from causing or allowing visible emissions in excess of the applicable standard in 18 AAC 50.055(a)(1). MR&R requirements are listed in Conditions 2 through 4 (for liquid fuel-burning equipment), Condition 5 (for flares), and Condition **16** [13] (for dual fuel- burning equipment) of the permit. These conditions have been adopted into regulation as Standard Permit Condition (SPC) IX – Visible Emissions and Particulate Matter Monitoring Plan for Liquid Fuel-Burning Equipment and Flares.

The Permittee must establish by visual observations of emissions unit exhaust, which may be supplemented by other means (e.g., a defined stationary source operation and maintenance program), that the stationary source is in continuous compliance with the state emission standards for visible emissions.

These conditions detail a stepwise process for monitoring to determine compliance with the state's visible emissions standard for liquid fuel-burning equipment. Equipment types covered by these conditions are stationary internal combustion engines, turbines, heaters, boilers, and flares. Initial monitoring frequency schedules are established along with subsequent reductions or increases in frequency depending on the results of the self-monitoring program.

Reasonable action thresholds are established in these conditions that require the Permittee to progressively address potential visible emission problems from emissions units either through maintenance programs and/or more rigorous tests that will quantify whether a specific emission standard has been exceeded.

Condition 5 was developed to provide a standardized version of flare monitoring that is not dependent upon the type or design of upstream equipment. It has been claimed that gas-fired flares normally burn without emitting visible emissions. However, gas-fired flares have been shown to smoke when a control device malfunctions (e.g., knockout drum, flare scrubber, gas or steam assist, or vapor recovery system). The condition sets out a protocol to collect actual field data to determine compliance with the 20 percent visible emissions standard for flares.

**Liquid Fuel-Burning Equipment:**

Monitoring – The emissions unit exhaust must be observed by either the Method 9 Plan or the Smoke/No Smoke Plan as detailed in Condition 2. Corrective actions such as maintenance procedures or more frequent observations may be required depending on the results of the observations.

Recordkeeping –[-] The Permittee is required to record the results of all observations of emissions unit exhaust and record any actions taken to reduce visible emissions.

Reporting –[-] The Permittee is required to report emissions in excess of the state visible emissions standard and deviations from permit conditions. The Permittee is also required to include in the operating report a statement of which visible emissions plan was used for each emissions unit and copies of the results of all visible emission observations.

**Dual Fuel-Burning Equipment:**

As long as dual fuel-burning emissions units operate only on gas, monitoring consists of a statement in each operating report indicating only gaseous fuels were used in the equipment during the reporting period. When any of EU ID(s) *<insert EU ID numbers from Condition **16** [13]>* operates on a backup liquid fuel for more than 400 hours in a calendar year, monitoring as detailed in Condition **16.3** [13.3] is required for that emissions unit in accordance with Department Policy and Procedure No. 04.02.103, Topic # 2. When any of EU ID(s) *<insert EU ID numbers from Condition **16** [13]>* operates on a backup liquid fuel for 400 hours or less in a calendar year, monitoring for that emissions unit consists of an annual certification of compliance with the visible emissions standard. The 400-hour trigger for additional monitoring applies to each individual unit and not as a combined total for all units.

**Significant Emissions Units under 18 AAC 50.326(d)(1):**

*<Add statement of basis on a case-by-case basis for emissions units under Conditions 1.2 through 1.4 that are potentially insignificant based on actual or potential emissions but are significant per 18 AAC 50.326(d)(1). See example below.>*

For EU ID(s) *<insert EU ID numbers>* no visible emissions monitoring is required when these emissions units are insignificant based on actual or potential emissions due to permit Condition(s) *<insert the Condition numbers that apply>* that limit either their hours of operation or fuel consumption, *<or any other restrictions that prevent the unit from reaching significant emissions thresholds in 18 AAC 50.326(e)>*. As long as the emissions units operate within these limits, they are insignificant by emissions rate as specified in 18 AAC 50.326(e) and no monitoring is required in accordance with Department Policy and Procedure No. 04.02.103, Topic # 3. The Permittee must annually certify compliance under Condition *<insert reference to Annual Compliance Certificate condition number>* with the

visible emissions standard based on reasonable inquiry.

**Flares:**

Monitoring for flares requires Method 9 observations of scheduled daylight flaring events lasting more than one hour. The Permittee must report the results of these observations to the Department.

**For flares, EU ID(s) <*insert EU IDs for flares*>, the Permittee is required to conduct an initial visible emissions observation within 12 months of issuance of the permit, and a subsequent visible emissions observation within 14 months, but not earlier than three months, after the preceding flare event visible emissions observation. If there are no applicable flare events that occur during the 12-to-14-month period, the Permittee shall observe the next daylight flare event.**

**Conditions 6, 7 through 9, 10 through 12, [& ] 13 through 15, and 16, PM Standard and MR&R**

**Legal Basis:** These conditions require compliance with the applicable requirement in 18 AAC 50.055(b).

- 18 AAC 50.055(b)(1) applies to the operation of all fuel-burning equipment and industrial processes. EU ID(s) <*insert EU ID numbers*> are fuel-burning equipment *(or industrial processes)*.

This PM standard applies because it is contained in the federally approved SIP. The Department included permit conditions for MR&R as required by 40 C.F.R. 71.6(a)(3) and 71.6(c)(1).

**Factual Basis:** Condition 6 prohibits emissions in excess of the applicable state PM standard.

MR&R requirements are listed in Conditions 7 through 9, 10 through 12, [&] 13 **through 15, and 16** of the permit. These conditions have been adopted into regulation as SPC IX.

The Permittee must establish by visual observations, which may be supplemented by other means (e.g., a defined stationary source operation and maintenance program) that the stationary source is in continuous compliance with the state's emission standards for PM.

**Liquid Fuel-Burning Equipment:**

Monitoring – The Permittee is required to either take corrective action, or conduct PM source testing, if opacity threshold values are exceeded. For liquid fuel-burning engines and turbines, the Department set opacity threshold values of 15 percent for stack diameters less than 18 inches and 20 percent for stack diameters equal to or greater than 18 inches. These opacity thresholds are based on a study conducted by the Department in an effort to establish a correlation between opacity and PM. The data was collected from diesel engines of various stack sizes. and the results are as follows:

- For stacks normalized to 21 inches – 0.05 gr/dscf corresponds to 27% opacity
- For stacks normalized to 18 inches – 0.05 gr/dscf corresponds to 23% opacity

- For stacks normalized to 12 inches – 0.05 corresponds to 16.8% opacity
- For stacks normalized to 10 inches – 0.05 corresponds to 14.3 % **opacity**

This means that the trend line for the complete data set predicts that 20% opacity corresponds to a little less than the PM limit for an 18-inch stack. There may be engines that exceed the thresholds but the intent of the standard condition is not to guarantee that each engine that might exceed the PM standard will be tested. The Department expects few, if any, engines to actually be tested under this condition. What the Department does expect is that with the adopted condition in place, operators that find an opacity above or near the testing threshold will take corrective action necessary to reduce PM emissions. This would achieve the desired environmental outcome without the added cost of testing. The Department expects this to be the case with both thresholds.

The method is premised on the fact that a five percent difference in opacity is distinguishable. The conditions mean that if opacity readings as measured using Method 9 – with all of its limitations – exceed the threshold, the Permittee must either take corrective action or conduct a PM source test. The compliance conditions for PM do not draw a legal conclusion about whether the method shows compliance with the visible emissions standard.

Recordkeeping –[-] The Permittee is required to record the results of PM source tests and visible emissions observations conducted during the source test.

Reporting –[-] The Permittee is required to report incidents when emissions in excess of the opacity threshold are observed and the results of PM source tests. The Permittee is also required to include copies of the results of all visible emission observations taken during PM source testing in the operating report.

**Used Oil-Burning Equipment:**

**For EU ID(s) <*insert EU ID numbers for Used oil-burning equipment*>, the Department requires ash content testing of the used oil and/or blending with other fuel oil to ensure that emissions from EU ID(s) <*insert EU ID numbers for Used oil-burning equipment*> will not exceed the PM standard in Condition 6.**

**The Department examined compliance with the PM emissions standard for EUs burning used oil using the PM emission factor as a function of ash content of used oil in weight percent (A, wt%) provided in Table 1.11-1 to EPA AP-42 (5th Edition) and Equation 19-1 from Method 19 of Appendix (App.) A-7 to 40 CFR 60:**

**PM EF = 64A [Table 1.11-1, EPA AP-42 (5th Edition)]**

$$E = C_d F_d \left( \frac{20.9}{20.9 - \%O_{2d}} \right)$$ **[Equation 19-1, 40 CFR 60 App. A-7, Method 19]**

**Where:**

**PM EF = Particulate Matter Emission Factor, lb/$10^3$ gallons**
**A = Ash content of used oil or blend (wt%)**
**E = fuel specific emission rate (lb/MMBtu)**

**$F_d$ = dry exhaust volume per MMBtu fuel burned (dscf/MMBtu). $F_d$ for various fuels is listed in Table 19-2 of Method 19.**
**$\%O_{2d}$ = percent oxygen by volume in dry exhaust gas**
**$C_d$ = pollutant concentration, lbs-pollutant/dscf-exhaust**

**Assumptions:**

**Heat Content = 150 MMBtu/$10^3$ gal (AP-42, Section 1.11.3)**

**$F_d$ = 9,190 dscf/MMBtu for used oil (40 CFR 60, App. A, Method 19, Table 19-2, for residual oil)**

**$\%O_{2d}$ is assumed to be three percent for fossil fuel combustion**

**Solving for pollutant concentration ($C_d$) from Method 19, Equation 19-1:**

**Equation 1**
$$C_d = \frac{E}{F_d\left(\frac{20.9}{20.9 - \%O_{2d}}\right)}$$

**To convert to 0.05 grains/dscf (PM standard) to $C_d$ (lb/dscf):**

**Equation 2**
$$0.05\ \frac{\text{grains}}{\text{dscf}} = (C_d)(7{,}000\ \text{grains/lb})$$
**$C_d$ = 0.05 grains/dscf * 1 lb/7,000 grains**
**$C_d$ = 7.14 x $10^{-6}$ lb/dscf**

**To find the equivalent ash content corresponding to the PM standard:**

**Fuel specific PM emission rate in lb/MMBtu, E:**

**Equation 3**
$$E = \frac{64A\ \text{lb/kgal}}{150\ \text{MMBtu/kgal}} = 0.427A\ \text{lb/MMBtu}$$

**Using Equation 1~~Equation 1~~ and substituting values of Cd and E in Equations 2 and 3:**

$$C_d = \frac{0.427A\ \text{lb/MMBtu}}{(9{,}190\ \text{dscf/MMBtu})\left(\frac{20.9}{20.9-3}\right)} = 7.14 \times 10^{-6}\ \text{lb/dscf}$$

$$0.427A\ \text{lb/MMBtu} = 7.14 \times 10^{-6}\ \text{lb/dscf} * (9{,}190\ \text{dscf/MMBtu})\left(\frac{20.9}{20.9-3}\right)$$

**A = 0.18 wt%**

**Therefore, the Department finds that 0.18 weight percent ash content in used oil is a reasonable threshold for requiring a corrective action, such as blending the appropriate ratio of the used oil to other fuel oil, or requiring a PM source test to verify compliance with the state PM standard.**

**Dual Fuel-Burning Equipment:**

As long as dual fuel-burning emissions units operate only on gas, monitoring consists of a statement in each operating report indicating only gaseous fuels were used in the equipment during the reporting period. When any of EU ID(s) <*insert EU ID numbers from Condition* ***16***

[*13*]> operates on a backup liquid fuel for more than 400 hours in a calendar year, monitoring as detailed in Condition **16.3** [13.3] is required for that emissions unit in accordance with Department Policy and Procedure No. 04.02.103, Topic # 2. When any of EU ID(s) <*insert EU ID numbers from Condition* ***16*** [*13*]> operates on a backup liquid fuel for 400 hours or less in a calendar year, monitoring for that unit consists of an annual certification of compliance with the particulate matter standard. The 400-hour trigger for additional monitoring applies to each individual unit and not as a combined total for all units.

**Significant Emissions Units under 18 AAC 50.326(d)(1):**

*<Add statement of basis on a case-by-case basis for emissions units under Conditions 6.3 through 6.5 that are potentially insignificant based on actual or potential emissions but are significant per 18 AAC 50.326(d)(1). See example below.>*

For EU ID(s) <*insert EU ID numbers*>, no monitoring is required when these emissions units are insignificant emissions units based on actual or potential emissions due to permit Condition(s) <*insert the Condition numbers that apply*> that limit either their hours of operation or fuel consumption, <o*r any other restrictions that prevent the unit from reaching significant emissions thresholds in 18 AAC 50.326(e)*>. As long as the emissions units operate within these limits, they are insignificant by emissions rate as specified in 18 AAC 50.326(e) and no monitoring is required in accordance with Department Policy and Procedure No. 04.02.103, Topic # 3. The Permittee must annually certify compliance under Condition <*insert reference to Annual Compliance Certificate condition number*> with the PM emissions standard based on reasonable inquiry.

**Flares:**

Monitoring of flares for PM is waived, i.e., no source testing is required because of the difficulty and questionable results these tests produce when applied to flares. Compliance with the state visible emissions standard serves as a surrogate compliance demonstration for the state particulate matter emissions standard.