

AUTHORIZATION TO OPERATE (ATO): #3877
UNDER PDEQ CLASS II GENERAL AIR QUALITY PERMIT 6210
For
Nonmetallic Material Handling Facilities
(Crushing & Screening, Hot Mix Asphalt and Concrete Batch Plants)



I. FACILITY INFORMATION:

Business Name: Cemex Construction Materials South LLC - Apex Plant

Facility Name: Apex Plant

Source Location: 11500 N. Calmat Drive, Marana AZ 85653

Permitted Emissions, tons/year:

Conventional or Criteria Air Pollutant					HAP(s) Totals	
PM ₁₀	NO _x	VOC	CO	SO ₂	Single HAP	Combined HAPS
<90	<90	<90	<90	<90	<10	<25

Rolling 12-Month Throughput Limitations:

Crushing & Screening Plant: _____ N/A _____

Hot Mix Asphalt Plant: _____ N/A _____

Concrete Batch Plant(s): _____ N/A _____

(These throughput limitations are calculated from the general permit application and the annual hour limitation identified in the facility's PTE)

Rupesh Patel, Air Program Manager, PDEQ

ATO #3877	
Issue Date:	March 5, 2020
Effective Date:	N/A
Expiration Date:	April 23, 2022

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II. AUTHORIZED EQUIPMENT:

Equipment, operations, and activities for which emissions are allowed by the general permit are as follows:

Table 1: Section 3 of the Permit – NSPS for Nonmetallic Mineral Processing Plants Affected Facilities:

Equipment Number	Source Equipment ID ¹	Type of Equipment	Manufacturer	Model	Serial Number	Maximum Rated Capacity	Manufacturer Date	≥ 4/22/2008	Opacity Limit %
C & S Plant									
01	10020962	Jaw Crusher	Cedar Rapids	N/A	46362-10020962	700 tph	Unknown	No	15%
02	154999-32581	3 Deck Screen	JCI	516326	99-H090-26	645 tph	1999	No	10%
03	155012B-32849	3 Deck Screen	Cedar Rapids	N/A	50360	475	2000	No	10%
VSI Crushing Plant									
04	30-64828	Cone Crusher	Allis-Sandvik	H6000	8942	300 tph	1999	No	15%
05	30-1538	Screen	Reesco JCI	6'x20'	JCI620398R	500 tph	1999	No	10%
Wash Plant – Applicable to affected facilities prior to point of material saturation. Pursuant to 40 CFR 60.670(a)(2), the NSPS provisions do not apply to Facilities in wet processing operations that process saturated material.									

¹ Equipment identified in the permit application as needing an ATO. Other associated pieces of equipment listed on the equipment list of the application do not require an ATO but are subject to the provisions of this general permit.

Table 2: Section 4 of the Permit – Standards of Performance for Non-NSPS Gravel or Crushed Stone Processing Plants:

Equipment Number	Source Equipment ID ¹	Type of Equipment	Manufacturer	Model	Serial Number	Maximum Rated Capacity	Manufacturer Date	Opacity Limit %
C & S Plant								
06	155012A-32845	Cone Crusher	El Jay	54" Roller	26E0283	645 tph	Pre-1983	20%
07	246-155048	Lime Silo	Garland	N/A	Unknown	300 tph	Pre-1983	20%

¹ Specific equipment identified in the permit application as needing an ATO. All equipment listed in the permit application is subject to the provisions of this general permit.

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Table 3: Section 6 of the Permit – Standards of Performance for Concrete Batch Plants:

Equipment Number	Source Equipment ID ¹	Type of Equipment	Manufacturer	Model	Serial Number	Maximum Rated Capacity	Manufacturer Date	Allowable Fuel	Opacity Limit %
Ready Mix Concrete Batch Plant #1									
08	37332-39	Concrete Batch Plant (CBP Inclusive)	Jobe/Spaulding/McNeilus/Rexroth	Unknown	Unknown	81 tons/hr 42 yards/hr	Unknown	N/A	20%
09	155065	Fly Ash Silo	Unknown	Unknown	Unknown	60 tons	Unknown	N/A	20%
10	155066	Cement Silo	Unknown	Unknown	Unknown	82 tons	Unknown	N/A	20%
11	120102353	Water Heater	Power Flame	CF2-G-15	120102353	98,000 Btu	Unknown	LPG	20%
Ready Mix Concrete Batch Plant #2									
12	34-35722	Concrete Batch Plant (CBP Inclusive)	CON-E-CO	12 YD LO PRO	D0673	240 yds/hr	2008	N/A	20%
13	34-35722	Fly Ash Silo	CON-E-CO	Unknown	D0673	215 barrels/ 40 tons	2008	N/A	20%
14	34-35722	Cement Silo	CON-E-CO	Unknown	D0673	565 barrels/ 106 tons	2008	N/A	20%

¹ Equipment identified in the permit application as needing an ATO. Other associated pieces of equipment listed on the equipment list of the application do not require an ATO but are subject to the provisions of this general permit.

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Section 7 of the Permit – Standards of Performance for Internal Combustion Engines:

Attachment F – NESHAP for CI & SI RICE (Non-Emergency Designated Engines):

Equip. No.	Description/ Location	MFR/ Model	Serial Number/ Unique ID	Maximum Rated Capacity ²	Date of MFR	Date Installed	Run Hour Limitation ¹	Allowable Fuels
15	Generator/ VSI Plant	Caterpillar	6PN00679	1341 hp	2000	2014	4380 hours	Diesel
16	Generator/ Ready Mix Batch Plant #2	Caterpillar	4ZR05388	487 hp	1999	2019	4380 hours	Diesel

1. Permittee's must install non-resettable hour meters when choosing to monitor run hours, otherwise the Permittee shall monitor and keep records of the metered fuel purchased and fired in the unit.
2. Permittee's may be required to meet requirements in Supplements attached to this ATO for designated engine categories.

Supplemental Attachments to this ATO:

Equip. No. 15 → Attachment F – Supplemental Requirements for NESHAP Non-Emergency CI Engines, HP > 500

Equip. No. 16 → Attachment F – Supplemental Requirements for NESHAP Non-Emergency CI Engines, 300 < HP ≤ 500

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ATO #3877	
Issue Date:	March 5, 2020
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**ATTACHMENT F – Supplemental Requirements for NESHAP Non-Emergency
CI Engines >300 HP ≤500 HP**

The conditions in this Supplement are additional conditions that apply to the non-emergency designated CI RICE >300 HP ≤500 HP listed in the ATO subject to NESHAP Subpart ZZZZ. The Permittee must meet the applicable conditions 1 through 9 in Attachment F as well as the additional conditions 10 through 23 listed in this Supplement. All conditions in this Supplement are Federally Enforceable unless otherwise noted. [40 CFR 63.6580 & 63.6590]

Emission Limitations

10. The Permittee shall comply with either of the following emission limitations: [40 CFR 63.6603(a), and 40 CFR 63, Subpart ZZZZ, Table 2d]
- a. The Permittee shall limit concentration of CO in the engine exhaust to 49 ppmv at 15 percent O₂.
 - b. The Permittee shall reduce CO emissions by 70%
11. The Permittee has demonstrated initial compliance with 10.a if: [Rows 11 and 12 of Table 5 to Subpart ZZZZ]
- a. The average reduction of emissions of CO, determined from the initial performance test, is equal to or greater than the required CO percent reduction in 10.b; or
 - b. The average CO concentration, corrected to 15 percent O₂, dry basis, from the three test runs is less than or equal to the CO emission limitation in 10.a.
12. The Permittee must be in compliance with the emission limitations in 10 at all times. [40 CFR 63.6605(a)]

Operation and Maintenance Requirements

13. The Permittee shall follow the manufacturer's specified maintenance requirements for operating and maintaining the open or closed crankcase ventilation systems and replacing the crankcase filters, or can request the Director to approve different maintenance requirements that are as protective as manufacturer requirements. [40 CFR 63.6625(g)]
14. If the CI engine is not equipped with a closed crankcase ventilation system, the Permittee shall either
- a. Install a closed crankcase ventilation system that prevents crankcase emissions from being emitted to the atmosphere, or [40 CFR 63.6625(g)(1)]
 - b. Install an open crankcase filtration emission control system that reduces emissions from the crankcase by filtering the exhaust stream to remove oil mist, particulates and metals. [40 CFR 63.6625(g)(2)]

Performance Testing

15. The Permittee shall conduct an initial performance test to demonstrate compliance with the emission limits in Condition 10.a. The performance test must comply with the requirements in conditions 16 and 17 below. [Table 4 to 40 CFR 63 Subpart ZZZZ]
16. The Permittee must comply with the following for the measurement of CO and O₂ during the performance test:
- a. Select the sampling port location and the number/location of traverse points at the inlet and outlet of the control device according to the following:

- i. Ducts ≤ 6 inches in diameter may be sampled at a single point located at the duct centroid.
 - ii. Ducts > 6 and ≤ 12 inches in diameter may be sampled at 3 traverse points located at 16.7, 50.0, and 83.3% of the measurement line ('3-point long line').
 - iii. If the duct is > 12 inches in diameter and the sampling port location meets the two and half-diameter criterion of Section 11.1.1 of Method 1 of 40 CFR Part 60, Appendix A-1, the duct may be sampled at '3-point long line'; otherwise, conduct the stratification testing and select sampling points according to Section 8.1.2 of Method 7E of 40 CFR Part 60, Appendix A-4.
- b. Measurements to determine O₂ must be made at the same time as measurements for CO concentration.
 - c. Measure the O₂ at the inlet and outlet of the control device using Method 3 or 3A or 3B of 40 CFR 60, Appendix A-2, or ASTM Method D6522-00 (Reapproved 2005) (heated probe not necessary).
 - d. Measure the CO at the inlet and the outlet of the control device using ASTM D6522-00 (Reapproved 2005) (heated probe not necessary) or Method 10 of 40 CFR Part 60, Appendix a-4.
 - e. The CO concentration must be at 15 percent O₂, dry basis.

17. The Permittee must comply with the following for each performance test:

- a. Conduct three separate test runs. Each test run must be at least 1 hour. [40 CFR 63.6620(d)]
- b. Use Equation 1 below to determine compliance with the percent reduction requirement: [40 CFR 63.6620(e)(1)]

$$\frac{C_i - C_o}{C_i} \times 100 = R \quad (\text{Eq. 1})$$

Where:

- C_i = concentration of carbon monoxide (CO), total hydrocarbons (THC), or formaldehyde at the control device inlet,
- C_o = concentration of CO, THC, or formaldehyde at the control device outlet, and
- R = percent reduction of CO, THC, or formaldehyde emissions.

- c. Normalize the CO, THC, or formaldehyde concentrations at the inlet and outlet of the control device to a dry basis and to 15 percent oxygen, or an equivalent percent carbon dioxide (CO₂). If pollutant concentrations are to be corrected to 15 percent oxygen and CO₂ concentration is measured in lieu of oxygen concentration measurement, a CO₂ correction factor is needed. Calculate the CO₂ correction factor as described in paragraphs (e)(2)(i) through (iii) of this section. [40 CFR 63.6620(e)(2)]

- i. Calculate the fuel-specific F_o value for the fuel burned during the test using values obtained from Method 19, Section 5.2, and the following equation:

$$F_o = \frac{0.209 F_d}{F_c} \quad (\text{Eq. 2})$$

Where:

F_o = Fuel factor based on the ratio of oxygen volume to the ultimate CO₂ volume produced by the fuel at zero percent excess air.

0.209 = Fraction of air that is oxygen, percent/100.

F_d = Ratio of the volume of dry effluent gas to the gross calorific value of the fuel from Method 19, dsm³/J (dscf/106 Btu).

F_c = Ratio of the volume of CO₂ produced to the gross calorific value of the fuel from Method 19, dsm³/J (dscf/106 Btu)

- ii. Calculate the CO₂ correction factor for correcting measurement data to 15 percent O₂, as follows:

$$X_{CO_2} = \frac{5.9}{F_o} \quad (Eq. 3)$$

Where:

X_{CO_2} = CO₂ correction factor, percent.

5.9 = 20.9 percent O₂—15 percent O₂, the defined O₂ correction value, percent

- iii. Calculate the CO, THC, and formaldehyde gas concentrations adjusted to 15 percent O₂ using CO₂ as follows:

$$C_{adj} = C_d \frac{X_{CO_2}}{\%CO_2} \quad (Eq. 4)$$

Where:

C_{adj} = Calculated concentration of CO, THC, or formaldehyde adjusted to 15 percent O₂.

C_d = Measured concentration of CO, THC, or formaldehyde, uncorrected.

X_{CO_2} = CO₂ correction factor, percent.

$\%CO_2$ = Measured CO₂ concentration measured, dry basis, percent.

- d. The engine percent load during a performance test must be determined by documenting the calculations, assumptions, and measurement devices used to measure or estimate the percent load in a specific application. A written report of the average percent load determination must be included in the notification of compliance status. The following information must be included in the written report: the engine model number, the engine manufacturer, the year of purchase, the manufacturer's site-rated brake horsepower, the ambient temperature, pressure, and humidity during the performance test, and all assumptions that were made to estimate or calculate percent load during the performance test must be clearly explained. If measurement devices such as flow meters, kilowatt meters, beta analyzers, stain gauges, etc. are used, the model number of the measurement device, and an estimate of its accurate in percentage of true value must be provided.

Notification Requirements

18. 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 and develop a site specific test plan. The test plan shall include: [40 CFR 63.6645(g), CFR 63.7(c)]
- a. A test program summary.
 - b. The test schedule.
 - c. Data quality objectives.
 - d. Both an internal and external quality assurance program.
19. If requested by the Control Officer, the Permittee shall submit the site-specific test plan for approval before conducting the required performance test. [40 CFR 63.7(b)]
20. The Permittee shall submit a Notification of Compliance Status, signed by a responsible official, before the close of business on the 60th day following the completion of the initial performance test. Notifications may be combined as long as the due date requirement for each notification is met. [40 CFR 63.6645(h)(2) & 40 CFR 63.9(h)(2)(ii)]

Reporting Requirements

21. Unless the Control Officer has approved a different schedule for submission of reports under 40 CFR 63.10(a), the Permittee must submit each report semiannually and according to the requirements in 21.a through e of this Section. [40 CFR 63.6650(a)& (b)]
- a. If there are no deviations from any emission limitations or operating limitations, a statement that there were no deviations from the emission limitations or operating limitations during the reporting period. [40 CFR Subpart ZZZZ : Table 7, 1.a.i]
 - b. The first semiannual Compliance report must cover the period beginning on the compliance date that is specified for your affected source (May 3, 2013) and ending on June 30 (the end of the first calendar half after the compliance date). [40 CFR 63.6650(b)(1)]
 - c. The first semiannual Compliance report must be postmarked or delivered no later than July 31 (the date that follows the end of the first calendar half after May 3, 2013). [40 CFR 63.6650(b)(2)]
 - d. Each subsequent semiannual Compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31. [40 CFR 63.6650(b)(3)]
 - e. Each subsequent Compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period. [40 CFR 63.6650(b)(4)]
22. The Compliance report must contain the following information: [40 CFR 63.6650(c)]
- a. Company name and address. [40 CFR 63.6650(c)(1)]
 - b. Statement by a Responsible Official, with that official's name, title, and signature, certifying the accuracy of the content of the report. [40 CFR 63.6650(c)(2)]
 - c. Date of report and beginning and ending dates of the reporting period. [40 CFR 63.6650(c)(3)]
 - d. If you had a malfunction during the reporting period, the compliance 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 an owner or operator during a malfunction of an affected source to minimize emissions in accordance with III.G.2 of this Section, including actions taken to correct a malfunction. [40 CFR 63.6650(c)(4) & 40 CFR 63.6605(b)]

- e. If there are no deviations from any emission or operating limitations that apply to you, a statement that there were no deviations from the emission or operating limitations during the reporting period. [40 CFR 63.6650(c)(5)]
- f. For each deviation from an emission or operating limitation that occurs for a stationary RICE where the Permittee is not using a Continuous Monitoring System to comply with the emission or operating limitations in this Section, the Compliance report must contain the information in 22.a through d and the information in 22.f.i and ii below. [40 CFR 63.6650(d)]
 - i. The total operating time of the stationary RICE at which the deviation occurred during the reporting period. [40 CFR 63.6650(d)(1)]
 - ii. Information on the number, duration, and cause of deviations (including unknown cause, if applicable), as applicable, and the corrective action taken. [40 CFR 63.6650(d)(2)]

Recordkeeping Requirements

- 23. The Permittee shall keep the following records: [40 CFR 63.6655(a)]
 - a. A copy of each notification and report that was submitted to comply with this Permit including all documentation supporting any Initial Notification or Notification of Compliance Status that the Permittee submitted, according to the requirement in 40 CFR 63.10(b)(2)(xiv); [40 CFR 63.6655(a)(1)]
 - b. Records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment; [40 CFR 63.6655(a)(2)]
 - c. Records of performance tests and performance evaluations as required in 40 CFR 63.10(b)(2)(viii); [40 CFR 63.6655(a)(2)]
 - d. Records of all required maintenance performed on the air pollution control and monitoring equipment; and [40 CFR 63.6655(a)(3)]
 - e. Records of actions taken during periods of malfunction to minimize emissions in accordance with Condition 6.b of Attachment F including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [40 CFR 63.6655(a)(4)]
 - f. Records of maintenance conducted on the stationary RICE in order to demonstrate that the stationary RICE and after-treatment control device (if any) was operated and maintained according to the Permittee's maintenance plan. [40 CFR 63.6655(e)]

**ATTACHMENT F – Supplemental Requirements for NESHAP Non-Emergency
CI Engines > 500 HP**

The Conditions in this Supplement apply to non-emergency designated CI RICE > 500 HP listed in the ATO subject to NESHAP Subpart ZZZZ. The Permittee must meet the applicable Conditions 1 through 9 in Attachment F as well as the additional Conditions 10 through 16 listed in this Supplement. All Conditions in this Supplement are Federally Enforceable unless otherwise noted. [40 CFR 63.6580 & 63.6590]

Emission Limitations and Standards

[PCC 17.13.020.A.2]

10. The Permittee must comply with the following emission limitations, operating limitations, and requirements, except during periods of startup. Compliance with the numerical emission limitations in Condition 10.a below is based on the results of testing the average of three 1-hour runs in accordance with the testing requirements in Condition 16.b of this Section: [40 CFR 63.6603(a), and Tables 2d and 2b to Subpart ZZZZ]

[Material Permit Conditions]

- a. The Permittee must comply with the following emission limitations, operating limitations, and other requirements: [Row 3.a of Table 2d and Row 2 of Table 2b, to Subpart ZZZZ]
- i. Limit the concentration of CO in the exhaust to 23 ppmvd at 15% Oxygen; and
 - ii. Maintain the catalyst so that the pressure drop across the catalyst does not change by more than 2 inches of water from the pressure drop across the catalyst that was measured during the initial performance test; and
 - iii. Maintain the temperature of the exhaust so that the catalyst inlet temperature is greater than or equal to 450 °F and less than or equal to 1350 °F.
- b. During periods of startup, the Permittee must minimize the engine's time spent at idle and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the emission standards applicable to all times other than startup in Condition 10.a apply. [40 CFR 63.6625(h)]

Compliance Determination

[PCC 17.13.020.A.3, 4, & 5]

11. Crankcase Ventilation Requirements

- a. If the CI RICE is not equipped with a closed crankcase ventilation system, the Permittee must comply with one of the following:
- i. Install a closed crankcase ventilation system that prevents crankcase emissions from being emitted to the atmosphere, or
 - ii. Install an open crankcase filtration emission control system that reduces emissions from the crankcase by filtering the exhaust stream to remove oil mist, particulates and metals.
- b. The Permittee must follow the manufacturer's specified maintenance requirements for operating and maintaining the open or closed crankcase ventilation systems and replacing the crankcase filters, or can request the Control Officer to approve different maintenance requirements that are as protective as manufacturer requirements. [40 CFR 63.6625(g)]

12. Initial Compliance Demonstration

The Permittee must initially comply with the emission limitations and operating limitations and other requirements in Condition 10.a by the following provisions. During the initial performance test required by Condition 16.b.i the Permittee must establish each operating limitation in Condition 10.a.

[40 CFR 63.6620; 63.6625(a),(b); 40 CFR 63.6630(a),(b); & Tables 2b and 5 of subpart ZZZZ]

- a. The Permittee must limit the concentration of CO in the exhaust by installing an oxidation catalyst and continuous parameter monitoring system (CPMS) or a continuous emission monitoring system (CEMS).

[40 CFR §§ 63.6625, 63.6630, and Tables 2b and 5 of Subpart ZZZZ]

- b. Continuous Parameter Monitoring System (CPMS) Option

If the Permittee installs a CPMS as specified in Condition 12.a, the Permittee must install, operate, and maintain each CPMS according to the following:

[40 CFR 63.6625(b)]

- i. The Permittee must prepare a site-specific monitoring plan that addresses the monitoring system design, data collection, and the quality assurance and quality control elements outlined in Conditions 12.b.i (a) through (e) below and in 40 CFR 63.8(d). As specified in 40 CFR 63.8(f)(4), the Permittee may request approval of monitoring system quality assurance and quality control procedures alternative to those specified in Conditions 12.b.i through vii of this Section in the Permittee's site-specific monitoring plan.

[40 CFR 63.6625(b)(1)-(6)]

- (a) The performance criteria and design specifications for the monitoring system equipment, including the sample interface, detector signal analyzer, and data acquisition and calculations;
- (b) Sampling interface (e.g., thermocouple) location such that the monitoring system will provide representative measurements;
- (c) Equipment performance evaluations, system accuracy audits, or other audit procedures;
- (d) Ongoing operation and maintenance procedures in accordance with provisions in 40 CFR 63.8(c)(1)(ii) and (c)(3); and
- (e) Ongoing reporting and recordkeeping procedures in accordance with provisions in 40 CFR 63.10(c), (e)(1), and (e)(2)(i).
- ii. The Permittee must install, operate, and maintain each CPMS in continuous operation according to the procedures in the Permittee's site-specific monitoring plan.
- iii. The CPMS must collect data at least once every 15 minutes (see also Condition 13.a.i).
- iv. For a CPMS for measuring temperature range, the temperature sensor must have a minimum tolerance of 2.8 degrees Celsius (5 degrees Fahrenheit) or 1 percent of the measurement range, whichever is larger.
- v. The Permittee must conduct the CPMS equipment performance evaluation, system accuracy audits, or other audit procedures specified in the Permittee's site-specific monitoring plan at least annually.
- vi. The Permittee must conduct a performance evaluation of each CPMS in accordance with the Permittee's site-specific monitoring plan.
- vii. The Permittee has demonstrated initial compliance if:

[Row 2, of Table 5 to subpart ZZZZ]

- (a) The average CO concentration determined from the initial performance test is less than or equal to the CO emission limitation; and
- (b) The Permittee has installed a CPMS to continuously monitor catalyst inlet temperature according to the requirements in Conditions 12.b.i through vi; and
- (c) The Permittee has recorded the catalyst pressure drop and catalyst inlet temperature during the initial performance test.

- c. Continuous Emissions Monitoring System (CEMS) Option

If the Permittee elects to install a CEMS as specified in Condition 12.a, the Permittee must install, operate, and maintain a CEMS to monitor CO and either O₂ or CO₂ according to the requirements in Conditions 12.c.i through v below. The CEMS must be installed at the outlet of the control device.

[40 CFR 63.6625(a)]

- i. Each CEMS must be installed, operated, and maintained according to the applicable performance specifications of 40 CFR Part 60, appendix B.
- ii. The Permittee must conduct an initial performance evaluation and an annual relative accuracy test audit (RATA) of each CEMS according to the requirements in 40 CFR 63.8 and according to the applicable performance specifications of 40 CFR Part 60, appendix B as well as daily and periodic data quality checks in accordance with 40 CFR Part 60, appendix F, procedure 1.
- iii. As specified in 40 CFR 63.8(c)(4)(ii), each CEMS must complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period. The Permittee must have at least two data points, with each representing a different 15-minute period, to have a valid hour of data.
- iv. The CEMS data must be reduced as specified in 40 CFR 63.8(g)(2) and recorded in parts per million or parts per billion (as appropriate for the applicable limitation) at 15 percent oxygen or the equivalent CO₂ concentration.
- v. The Permittee has demonstrated initial compliance if; [Row 6 of Table 5 to subpart ZZZZ]
 - (a) The Permittee has installed a CEMS to continuously monitor CO and either O₂ or CO₂ at the outlet of the oxidation catalyst according to the requirements of Condition 12.c above; and
 - (b) The Permittee has conducted a performance evaluation of the Permittee's CEMS using PS 3 and 4A of 40 CFR Part 60, appendix B; and
 - (c) The average concentration of CO calculated using 40 CFR 63.6620 is less than or equal to the CO emission limitation. The initial test comprises the first 4-hour period after successful validation of the CEMS. Compliance is based on the average concentration achieved during the 4-hour period.
- d. The Permittee must submit the Notification of Compliance Status containing the results of the initial compliance demonstration as required in Condition 12, according to the requirements in Condition 15.a. [40 CFR 63.6630(a)]

13. Demonstration of Continuous Compliance

The Permittee must demonstrate continuous compliance with each emission limitation, operating limitation, and other requirements in Condition 10.a that applies according to the following methods:

[40 CFR 63.6640(a), 40 CFR 63.6635 & Table 6 to Subpart ZZZZ]

- a. Monitor and collect data according to the following: [40 CFR 63.6635]
 - i. Except for monitor malfunctions, associated repairs, required performance evaluations, and required quality assurance or control activities, the Permittee must monitor continuously at all times that the engine is operating. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.
 - ii. The Permittee may not use data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities in data averages and calculations used to report emission or operating levels. The Permittee must, however, use all the valid data collected during all other periods.
- b. CPMS Option [Row 10 of Table 6 to Subpart ZZZZ]
 - i. Conducting subsequent performance tests in accordance with Condition 16.b.ii to demonstrate that the required CO emissions remain below the limit in Condition 10.a; and
 - (a) Collecting the catalyst inlet temperature data according to Condition 12.b; and
 - (b) Reducing these data to 4-hour rolling averages; and

- ii. Maintaining the 4-hour rolling averages within operating limitations for the catalyst inlet temperature; and
- iii. Measuring the pressure drop across the catalyst once per month and demonstrating that the pressure drop across the catalyst is within the operating limitation established during the performance test.

c. CEMS Option

[Row 3 of Table 6 to Subpart ZZZZ]

- i. Collecting the monitoring data according to Condition 12.c, reducing the measurements to 1-hour averages, calculating the concentration of CO emissions according to 40 CFR 63.6620; and
 - ii. Demonstrating that the catalyst achieves the required percent reduction of CO emissions over the 4-hour averaging period, or that the emissions remain at or below the CO concentration limit; and
 - iii. Conducting an annual RATA of the Permittee's CEMS using PS 3 and 4A of 40 CFR Part 60, Appendix B, as well as daily and periodic data quality checks in accordance with 40 CFR Part 60, Appendix F, procedure 1.
- d. The Permittee must report each instance in which the Permittee did not meet each emission limitation or operating limitation in Condition 10.a. These instances are deviations from the emission and operating limitations in this Section. These deviations must be reported according to the requirements in Condition 15.b. If the Permittee changes the catalyst, the Permittee must reestablish the values of the operating parameters measured during the initial performance test. When the Permittee reestablishes the values of the operating parameters, the Permittee must also conduct a performance test to demonstrate that that the Permittee is meeting the required emission limitation. [40 CFR 63.6640(b)]

14. Recordkeeping Requirements

a. The Permittee must keep the following records:

[40 CFR 63.6655(a)]

- i. A copy of each notification and report that the Permittee submitted to comply with this Section including all documentation supporting any Initial Notification or Notification of Compliance Status that the Permittee submitted, according to the requirements in 40 CFR 63.10(b)(2)(xiv).
- ii. Records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment.
- iii. Records of performance tests and performance evaluations as required in 40 CFR 63.10(b)(2)(viii).
- iv. Records of all required maintenance performed on the air pollution control and monitoring equipment.
- v. Records of actions taken during periods of malfunction to minimize emissions in accordance with Condition 10.b, including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.
- vi. The Permittee must keep the records required in Condition 13.a to show continuous compliance with each emission or operating limitation that applies. [40 CFR 63.6655(d)]
- vii. For each CEMS or CPMS, the Permittee must keep the records listed in Conditions 14.a.vii.(a) through (c) below.
 - (a) Records described in 40 CFR 63.10(b)(2)(vi) through (xi).
 - (b) Previous (i.e., superseded) versions of the performance evaluation plan as required in 40 CFR 63.8(d)(3).
 - (c) Requests for alternatives to the relative accuracy test for CEMS or CPMS as required in 40 CFR 63.8(f)(6)(i), if applicable.

- b. The Permittee's records must be in a form suitable and readily available for expeditious review according to 40 CFR 63.10(b)(1). [40 CFR 63.6660(a)]
- c. As specified in 40 CFR 63.10(b)(1), the Permittee must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. [40 CFR 63.6660(b)]
- d. The Permittee must keep each record readily accessible in hard copy or electronic form for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to 40 CFR 63.10(b)(1). [40 CFR 63.6660(c)]
- e. The Permittee shall retain records of visible emissions checks/observations (See Conditions 8.c and 9.d of Attachment F to the General Permit). The Permittee shall record the date and time of the check, the name of the person conducting the check, the results of the check, and the type of corrective action taken (if required). All records shall be maintained for five years. [PCC 17.13.020.A.4]
[Locally Enforceable Condition]
- f. In order to demonstrate compliance with the fuel limitations required in Condition 4 of Attachment F of the General Permit, the Permittee shall maintain records of fuel supplier specifications which verify the sulfur content of the fuel as delivered. All records shall be maintained for five years. [PCC 17.13.020.A.4]
[Locally Enforceable Condition]

15. Reporting and Notification Requirements [PCC 17.13.020.A.5]

a. Notifications

The Permittee must submit all of the notifications (Performance Testing, Performance Evaluations, Initial Notifications, and Notifications of Compliance Status) in 40 CFR 63.7(b) and (c), (f)(4) and (f)(6), 63.9 (b) through (g) and (h) that apply by the dates specified. [40 CFR 63.6645(a)]

b. Excess Emissions

The Permittee shall report to the Control Officer any emissions in excess of the limits established by this Section in accordance with Condition 2 of the General Permit. [PCC 17.13.190 & PCC 17.13.020.A.5]

[Locally Enforceable Condition]

16. Testing Requirements [PCC 17.11.160, PCC 17.11.210 & PCC 17.20.010]

For purposes of demonstrating compliance, these test methods shall be used, provided that for the purpose of establishing whether or not the facility has violated or is in violation of any provision of this permit, nothing in this permit shall preclude the use, including the exclusive use, of any credible evidence or information relevant to whether a source would have been in compliance with applicable federal requirements if the appropriate performance or compliance procedures or methods had been performed. The following referenced Methods and Performance Specifications are from 40 CFR Part 60, Appendix A and B unless otherwise noted.

a. Opacity

When required by the Control Officer, the Permittee shall perform EPA Method 9 visible emissions observations on the engines identified in this Section to demonstrate compliance with the opacity standard in Condition 5 of the General Permit. [PCC 17.12.045.B]

[Locally Enforceable Condition]

b. CI RICE Performance Testing

The Permittee must conduct each performance test as provided by the following provisions and in accordance with the procedures in 40 CFR 63.6620. The Permittee must notify the Control Officer of the intention to conduct a performance test at least 60 calendar days before the performance test is initially scheduled to begin to allow the Control Officer to have an observer present during the test.

[40 CFR 63.6620(a), 40 CFR 63.6645(g), & 40 CFR 63.7(b)]

i. Initial Performance Testing and Compliance

- (a) The Permittee shall conduct any required initial performance test or other initial compliance demonstration in accordance with Condition 12 as applicable within 180 days after the compliance date (May 3, 2013) and according to the provisions in 40 CFR 63.7(a)(2).

[40 CFR 63.6612(a)]

- (b) The Permittee is not required to conduct an initial performance test on a unit for which a performance test has been previously conducted but the test must meet all of the conditions in paragraphs i through iv below:

[40 CFR 63.6612(b)]

- (i) The test must have been conducted using the same methods specified in VII of this Section and 40 CFR 63.6620 and these methods must have been followed correctly.
- (ii) The test must not be older than 2 years.
- (iii) The test must be reviewed and accepted by the Control Officer.
- (iv) Either no process or equipment changes must have been made since the test was performed, or the Permittee must be able to demonstrate that the results of the performance test, with or without adjustments, reliably demonstrate compliance despite process or equipment changes.

ii. Subsequent Performance Testing

- (a) If using a CPMS, the Permittee shall conduct subsequent performance tests every 8760 hours or 3 years, whichever comes first.

[40 CFR 63.6620 and Table 3, items 4 & 5]

- (b) If using a CEMS, the Permittee shall conduct an annual RATA of the CEMS using PS 3 and 4A as well as daily and periodic data quality checks in accordance with 40 CFR Part 60, Appendix F, procedure 1.

iii. Test Methods and Procedures

The Permittee must comply with the following requirements for performance tests (as applicable):

[Row 3 of Table 4 to Subpart ZZZZ]

- (a) The Permittee must select the sampling port location and the number/location of the traverse points at the outlet or inlet and outlet (as applicable) of the control device according to the following: For CO and O₂ measurement, ducts ≤6 inches in diameter may be sampled at a single point located at the duct centroid and ducts >6 and ≤12 inches in diameter may be sampled at 3 traverse points located at 16.7, 50.0, and 83.3% of the measurement line ('3-point long line'). If the duct is >12 inches in diameter and the sampling port location meets the two and half-diameter criterion of Section 11.1.1 of Method 1, the duct may be sampled at '3-point long line'; otherwise, conduct the stratification testing and select sampling points according to Section 8.1.2 of Method 7E of 40 CFR Part 60.
- (b) The Permittee must measure the O₂ concentration at the sampling port location using Method 3, 3A, or 3B or ASTM Method D6522-00 (Reapproved 2005, heated probe not necessary) according to the following: Measurements to determine O₂ must be made at the same time as the measurements for CO concentration.
- (c) The Permittee must measure moisture content of the exhaust at the sampling port location using Method 4 according to the following: Measurements to determine moisture content must be made at the same time and location as the measurements for CO concentration.
- (d) The Permittee must measure the CO at the exhaust of the CI RICE using Method 10 or ASTM D6522-00 (2005) according to the following: The CO concentration must be at 15 percent O₂ on a dry basis. Results of this test consist of the average of three 1-hour long runs.
- (e) The Permittee may use Methods 3A and 10 as options to ASTM-D6522-00 (2005).