

# GENERAL AIR QUALITY CONTROL PERMIT for Concrete Batch Plants

(As required by Title 49, Chapter 3, Article 2, Section 49-426, Arizona Revised Statutes)

*This air quality control permit does not relieve applicant of responsibility for meeting all air pollution regulations*



THIS GENERAL PERMIT ISSUED SUBJECT TO THE FOLLOWING Conditions Contained in Attachments "A" through "E"

ADEQ GENERAL PERMIT NUMBER \_\_\_\_\_ PERMIT CLASS II EXPIRATION DATE May 22<sup>nd</sup>, 2020

PERMIT ISSUED THIS 22<sup>nd</sup> DAY OF May, 2015

\_\_\_\_\_  
SIGNATURE

Eric C. Massey, Director, Air Quality Division  
TITLE

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**AIR QUALITY CONTROL GENERAL PERMIT  
FOR CONCRETE BATCH PLANTS**

**ATTACHMENT “A”: GENERAL PROVISIONS**

**I. GENERAL PERMIT EXPIRATION AND RENEWAL**

[A.R.S. § 49-426.F, A.A.C.R18-2-306.A.1, -505]

- A.** This General Permit is valid for a period of five years from the date of issuance. The Director shall review and may renew this General Permit every five years from its date of issuance. All Permittee’s Authorizations to Operate (ATOs) shall coincide with the term of this General Permit, regardless of when the individual authorization began during this five year period, except that the Director may require a Permittee authorized to operate under this General Permit to apply for and obtain an individual permit at any time, if the source is not in compliance with the terms and conditions of this General Permit.
- B.** At the time that the public notice is required, pursuant to issuance of the proposed General Permit renewal, the Director shall notify in writing all Permittees who have been granted, or who have applications pending for, ATO(s) under this General Permit. The written notice shall describe the source’s duty to reapply and may include requests for information required under the proposed General Permit.

**II. COMPLIANCE WITH PERMIT CONDITIONS**

- A.** The Permittee shall comply with all conditions of this General Permit including all applicable requirements of the air quality rules under Title 18, Chapter 2 of the Arizona Administrative Code. Any noncompliance is grounds for enforcement action, for ATO termination or revocation, or for denial of a renewal application. In addition, non-compliance with any federally enforceable requirements constitutes a violation of the Clean Air Act.
- [A.A.C. R18-2-306.A.8.a]
- B.** It shall not be a defense for a Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this General Permit.
- [A.A.C. R18-2-306.A.8.b]

**III. GENERAL PERMIT REOPENINGS, REVOCATION AND REISSUANCE, OR TERMINATION FOR CAUSE**

- A.** The Director may reopen and reissue, or terminate this General Permit at any time if:
1. The Director has determined that the emissions from the sources in the facility class cause or contribute to ambient air quality standards violations which are not adequately addressed by the requirements in this General Permit, or  
[A.A.C. R18-2-510.A.1]
  2. The Director has determined that the terms and conditions of this General Permit no longer meet the requirements of A.R.S. §49-426 and 427.  
[A.A.C. R18-2-510.A.2]
  3. The Director or the Administrator determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.  
[A.A.C. R18-2-321.A.1.c]

4. The Director or the Administrator determines that the permit needs to be revised or revoked to assure compliance with the applicable requirements.

[A.A.C. R18-2-321.A.1.d]

- B.** The Director shall provide written notice to all sources operating under this General Permit prior to reissuance or termination of this General Permit. Such notice shall include an explanation of the basis for the proposed action. Within 180 days of receipt of the notice of the expiration, termination or cancellation of this General Permit, sources notified shall submit an application to the Director for the appropriate permit.

[A.A.C. R18-2-510.B]

- C.** The Director may require a source authorized to operate under this General Permit to apply for and obtain an individual source permit at any time if:

1. The source is not in compliance with the terms and conditions of this General Permit;
2. The Director has determined that the emissions from the source or facility class are significant contributors to ambient air quality standard violations which are not adequately addressed by the requirements in this General Permit.
3. The Director has information which indicates that the effects on human health and the environment from the sources covered under this General Permit are unacceptable;
4. The Director has reasonable cause to believe that the ATO was obtained by fraud or misrepresentation; or
5. The person applying for an ATO failed to disclose a material fact required by the permit application or the regulations applicable to the ATO of which the applicant had or should have had knowledge at the time the application was submitted.

[A.A.C. R18-2-510.C]

- D.** If the Director revokes a source's authority to operate under this General Permit, the Director shall notify the Permittee by certified mail, return receipt requested. The notice shall include a statement detailing the grounds for the revocation of authority and a statement that the Permittee is entitled to a hearing. A source previously authorized to operate under this General Permit may operate under the terms of this General Permit until the earlier of the date it submits a complete application for an individual permit, at which time it may operate under that application, or 180 days after receipt of the notice of revocation of authority to operate under this General Permit.

[A.A.C. R18-2-510.D]

#### **IV. POSTING OF GENERAL PERMIT**

[A.A.C. R18-2-315]

- A.** The Permittee shall post this General Permit or a certificate of General Permit coverage at the location where the equipment is installed in such a manner as to be clearly visible and accessible.
- B.** All equipment covered by this General Permit shall be clearly marked with a serial number or other equipment number that is listed on the ATO for that piece of equipment.
- C.** A copy of the complete General Permit and associated ATOs shall be kept on the site.

**V. FEE PAYMENT**

The Permittee shall pay fees to the Director pursuant to A.R.S. §49-426(E) and A.A.C. R18-2-511.

[A.A.C. R18-2-306.A.9]

**VI. ANNUAL EMISSIONS INVENTORY QUESTIONNAIRE**

**A.** The Permittee shall complete and submit to the Director an annual emissions inventory questionnaire. The questionnaire is due by March 31st or ninety days after the Director makes the inventory form available each year, whichever occurs later, and shall include emissions information for the previous calendar year.

**B.** The questionnaire shall be on a form provided by the Director and shall include the information required by A.A.C. R18-2-327.

[A.A.C. R18-2-327]

**VII. COMPLIANCE CERTIFICATION**

[A.A.C. R18-2-306.A.2, 309.2.a, -309.2.c-d, and -309.5.d]

**A.** The Permittee shall submit to the Director a compliance certification at least once each year and upon request of the Director. The compliance certification shall describe the compliance status of the source with respect to each General Permit condition and the methods used for determining the compliance status. The Permittee shall list on the compliance certification all items of equipment issued ATO(s), on site at the time of annual certification. In addition, this certification shall include a description of any permit deviation.

1. Until the Director makes the myDEQ online portal available to apply for and obtain permits, the certification shall be submitted by September 30<sup>th</sup> and shall cover the period from September 1<sup>st</sup> of the previous year to August 31<sup>st</sup> of the current year.

2. After the Director makes the myDEQ online portal available to apply for and obtain permits, the certification shall be completed and submitted using the myDEQ online portal, and shall be completed upon request of the Director through the portal.

**B.** After the time the myDEQ online portal for this permit is made available, the Permittee shall submit compliance certifications according to the timelines stipulated by the online portal.

**C.** The compliance certification shall include the following:

1. Identification of each term or condition of the permit that is the basis of the certification.

2. Identification of the method or other means used by the Permittee for determining the compliance status with each term and condition during the certification period.

3. The status of compliance with the terms and conditions of the permit for the period covered by the certification, including whether compliance during the period was continuous or intermittent. The certification shall be based on the methods or means designated in Condition VII.C.2 above. The certification shall

identify each deviation and take it into account for consideration in the compliance certification.

4. All instances of deviations from permit requirements reported pursuant to Condition XII.B of this attachment.
5. Other facts the Director may require to determine the compliance status of the source.

**D.** A progress report on all outstanding compliance schedules shall be submitted every six months beginning with six months after permit issuance.

### **VIII. CERTIFICATION OF TRUTH, ACCURACY AND COMPLETENESS**

Any document required to be submitted by this General Permit, including reports, shall contain a certification by a responsible official of truth, accuracy, and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

[A.A.C. R18-2-309.3]

### **IX. INSPECTION AND ENTRY**

[A.A.C. R18-2-309.4]

Upon presentation of credentials, the Permittee shall allow the Director or an authorized representative of the Director, to:

- A.** Enter upon the Permittee's premises where a source is located, emissions-related activity is conducted, or where records are required to be kept under the conditions of this General Permit;
- B.** Have access to and copy, at reasonable times, any records that are required to be kept under the conditions of this General Permit;
- C.** Inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this General Permit;
- D.** Sample or monitor at reasonable times, substances or parameters for the purpose of assuring compliance with the General Permit or other applicable requirements; and
- E.** Record any inspection by use of written, electronic, magnetic and photographic media.

### **X. PERMIT REVISION PURSUANT TO FEDERAL HAZARDOUS AIR POLLUTANT STANDARD**

If a source which has been granted coverage under this permit becomes subject to a standard promulgated by the Administrator pursuant to Section 112(d) of the Act, then the Permittee shall, within twelve months of the date on which the standard is promulgated, reapply for coverage under the General Permit demonstrating how the source will comply with the standard.

[A.A.C. R18-2-304.C]

### **XI. ACCIDENTAL RELEASE PROGRAM**

[40 CFR 68]

If this source becomes subject to the provisions of 40 CFR Part 68, then the Permittee shall comply with these provisions according to the time line specified in 40 CFR Part 68.

## **XII. EXCESS EMISSIONS, PERMIT DEVIATIONS, AND EMERGENCY REPORTING**

### **A. Excess Emissions Reporting**

[A.A.C. R18-2-306.A.5.b, -306.E.3.d and -310]

#### **1. Excess emissions shall be reported as follows:**

a. The Permittee shall report to the Director any emissions in excess of the limits established by this permit. Such report shall be in two parts as specified below:

(1) Notification by telephone or facsimile within 24 hours of the time when the Permittee first learned of the occurrence of excess emissions including all available information from Condition XII.A.1.b below.

(2) Detailed written notification by submission of an excess emissions report within 72 hours of the notification pursuant to Condition XII.A.1.a(1) above

b. The report shall contain the following information:

(1) Identity of each stack or other emission point where the excess emissions occurred;

(2) Magnitude of the excess emissions expressed in the units of the applicable emission limitation and the operating data and calculations used in determining the magnitude of the excess emissions;

(3) Date, time and duration, or expected duration, of the excess emissions;

(4) Identity of the equipment from which the excess emissions emanated;

(5) Nature and cause of such emissions;

(6) If the excess emissions were the result of a malfunction, steps taken to remedy the malfunction and the steps taken or planned to prevent the recurrence of such malfunctions; and

(7) Steps taken to limit the excess emissions. If the excess emissions resulted from start-up or malfunction, the report shall contain a list of the steps taken to comply with the permit procedures.

2. In the case of continuous or recurring excess emissions, the notification requirements of this section shall be satisfied if the source provides the required notification after excess emissions are first detected and includes in such notification an estimate of the time the excess emissions will continue. Excess emissions occurring after the estimated time period, or changes in the nature of the emissions as originally reported, shall require additional notification pursuant to Condition XII.A.1 above.

[A.A.C. R18-2-310.01.C)]

**B. Permit Deviations Reporting**

The Permittee shall promptly report deviations from permit requirements, including those attributable to upset conditions as defined in the permit, the probable cause of such deviations, and any corrective actions or preventive measures taken. Prompt reporting shall mean that the report was submitted to the Director by certified mail, facsimile, or hand delivery within two working days of the time when emission limitations were exceeded due to an emergency or within two working days of the time when the Permittee first learned of the occurrence of a deviation from a permit requirement.

[A.A.C. R18-2-306.A.5.b]

**C. Emergency Provision**

[A.A.C. R18-2-306.E]

1. An “emergency” means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, that require immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.
2. An emergency constitutes an affirmative defense to an action brought for noncompliance with such technology-based emission limitations if Condition XII.C.3 is met.
3. The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:
  - a. An emergency occurred and that the Permittee can identify the cause(s) of the emergency;
  - b. The permitted facility was being properly operated at the time;
  - c. During the period of the emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards or other requirements in the permit; and
  - d. The Permittee submitted notice of the emergency to the Director by certified mail, facsimile, or hand delivery within two working days of the time when emission limitations were exceeded due to the emergency. This notice shall contain a description of the emergency, any steps taken to mitigate emissions, and corrective action taken.
4. In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
5. This provision is in addition to any emergency or upset provision contained in any applicable requirement.

**D. Compliance Schedule**

For any excess emission or permit deviation that cannot be corrected with 72 hours, the Permittee is required to submit a compliance schedule to the Director within 21 days of

such occurrence. The compliance schedule shall include a schedule of remedial measures, including an enforceable sequence of actions with milestones, leading to compliance with the permit terms or conditions that have been violated.

[ARS § 49-426(I)(5)]

E. Affirmative Defenses for Excess Emissions due to Malfunctions, Startup, and Shutdown

[A.A.C. R18-2-310]

1. Applicability

This rule establishes affirmative defenses for certain emissions in excess of an emission standard or limitation and applies to all emission standards or limitations except for standards or limitations:

- a. Promulgated pursuant to Sections 111 or 112 of the Act;
- b. Promulgated pursuant to Titles IV or VI of the Clean Air Act;
- c. Contained in any Prevention of Significant Deterioration (PSD) or New Source Review (NSR) permit issued by the U.S. EPA;
- d. Contained in A.A.C. R18-2-715(F); or
- e. Included in a permit to meet the requirements of A.A.C. R18-2-406.A.5.

2. Affirmative Defense for Malfunctions

Emissions in excess of an applicable emission limitation due to malfunction shall constitute a violation. When emissions in excess of an applicable emission limitation are due to a malfunction, the Permittee has an affirmative defense to a civil or administrative enforcement proceeding based on that violation, other than a judicial action seeking injunctive relief, if the Permittee has complied with the reporting requirements of A.A.C. R18-2-310.01 and has demonstrated all of the following:

- a. The excess emissions resulted from a sudden and unavoidable breakdown of process equipment or air pollution control equipment beyond the reasonable control of the Permittee;
- b. The air pollution control equipment, process equipment, or processes were at all times maintained and operated in a manner consistent with good practice for minimizing emissions;
- c. If repairs were required, the repairs were made in an expeditious fashion when the applicable emission limitations were being exceeded. Off-shift labor and overtime were utilized where practicable to ensure that the repairs were made as expeditiously as possible. If off-shift labor and overtime were not utilized, the Permittee satisfactorily demonstrated that the measures were impracticable;
- d. The amount and duration of the excess emissions (including any bypass operation) were minimized to the maximum extent practicable during periods of such emissions;

- e. All reasonable steps were taken to minimize the impact of the excess emissions on ambient air quality;
- f. The excess emissions were not part of a recurring pattern indicative of inadequate design, operation, or maintenance;
- g. During the period of excess emissions there were no exceedances of the relevant ambient air quality standards established in Title 18, Chapter 2, Article 2 of the Arizona Administrative Code that could be attributed to the emitting source;
- h. The excess emissions did not stem from any activity or event that could have been foreseen and avoided, or planned, and could not have been avoided by better operations and maintenance practices;
- i. All emissions monitoring systems were kept in operation if at all practicable; and
- j. The Permittee's actions in response to the excess emissions were documented by contemporaneous records.

3. Affirmative Defense for Startup and Shutdown

- a. Except as provided in Condition XII.E.3.b below, and unless otherwise provided for in the applicable requirement, emissions in excess of an applicable emission limitation due to startup and shutdown shall constitute a violation. When emissions in excess of an applicable emission limitation are due to startup and shutdown, the Permittee has an affirmative defense to a civil or administrative enforcement proceeding based on that violation, other than a judicial action seeking injunctive relief, if the Permittee has complied with the reporting requirements of A.A.C. R18-2-310.01 and has demonstrated all of the following:
  - (1) The excess emissions could not have been prevented through careful and prudent planning and design;
  - (2) If the excess emissions were the result of a bypass of control equipment, the bypass was unavoidable to prevent loss of life, personal injury, or severe damage to air pollution control equipment, production equipment, or other property;
  - (3) The air pollution control equipment, process equipment, or processes were at all times maintained and operated in a manner consistent with good practice for minimizing emissions;
  - (4) The amount and duration of the excess emissions (including any bypass operation) were minimized to the maximum extent practicable during periods of such emissions;
  - (5) All reasonable steps were taken to minimize the impact of the excess emissions on ambient air quality;
  - (6) During the period of excess emissions there were no exceedances of the relevant ambient air quality standards established in Title 18, Chapter 2, Article 2 of the Arizona

Administrative Code that could be attributed to the emitting source;

(7) All emissions monitoring systems were kept in operation if at all practicable; and

(8) Contemporaneous records documented the Permittee's actions in response to the excess emissions.

b. If excess emissions occur due to a malfunction during routine startup and shutdown, then those instances shall be treated as other malfunctions subject to Condition XII.E.2 above.

4. Affirmative Defense for Malfunctions during Scheduled Maintenance

If excess emissions occur due to a malfunction during scheduled maintenance, then those instances will be treated as other malfunctions subject to Condition XII.E.2 above.

5. Demonstration of Reasonable and Practicable Measures

For an affirmative defense under Condition XII.E.2 or XII.E.3 above, the Permittee shall demonstrate, through submission of the data and information required by Condition XII.E and A.A.C. R18-2-310.01, that all reasonable and practicable measures within the Permittee's control were implemented to prevent the occurrence of the excess emissions.

### **XIII. RECORD KEEPING REQUIREMENTS**

[A.A.C. R18-2-306.A.4]

**A.** The Permittee shall keep records of all required monitoring information including, but not limited to, the following:

1. The date, place as defined in the permit, and time of sampling or measurements;

2. The date(s) analyses were performed;

3. The name of the company or entity that performed the analyses;

4. A description of the analytical techniques or methods used;

5. The results of such analyses; and

6. The operating conditions existing at the time of sampling or measurement.

**B.** The Permittee shall retain records of all required monitoring data and support information for a period of at least 5 years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings or other data recordings for continuous monitoring instrumentation, and copies of all reports required by the permit.

**C.** All required records shall be maintained either in an unchangeable electronic format or in a handwritten logbook utilizing indelible ink.

### **XIV. REPORTING REQUIREMENTS**

The Permittee shall submit the following reports:

- A. Compliance certifications in accordance with Section VII of Attachment “A”.
- B. Excess emission, permit deviation, and emergency reports in accordance with Section XII of Attachment “A”.
- C. Performance test results in accordance with Condition XVIII.G of Attachment “A”.
- D. Other reports required by any condition in Attachment “B”.

**XV. DUTY TO PROVIDE INFORMATION**

- A. The Permittee shall furnish to the Director, within a reasonable time, any information that the Director may request in writing to determine whether cause exists for revising, revoking and reissuing, or terminating the General Permit coverage, or to determine compliance with this General Permit. Upon request, the Permittee shall also furnish to the Director copies of records that the Permittee is required to keep under the General Permit. For information claimed to be confidential, the Permittee shall furnish an additional copy of such records directly to the Director along with a claim of confidentiality.

[A.A.C. R18-2-306.A.8.e]

- B. If the Permittee has failed to submit any relevant facts or if the Permittee has submitted incorrect information in a General Permit coverage application, the Permittee shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary facts or corrected information.

[A.A.C. R18-2-304.G]

**XVI. PERMIT COVERAGE AMENDMENTS OR REVISIONS**

[A.A.C. R18-2-318, -319 AND -320]

The Permittee shall apply for revised General Permit coverage, or for an individual permit, for changes to the facility which do not qualify for a facility change without revision as follows:

- A. Administrative Permit Amendment (A.A.C. R18-2-318); or
- B. Subsequent ATOs (see Section XVII below).

The applicability and requirements for such action are defined in the above-referenced regulations.

**XVII. FACILITY CHANGE ALLOWED WITHOUT OBTAINING AN ATO OR INDIVIDUAL PERMIT**

[A.A.C. R18-2-317.02]

- A. Except for a physical change or change in the method of operation at a Class II source subject to logging or notice requirements in Conditions XVII.B and XVII.C below, a change at a Class II source shall not be subject to revision, notice, or logging requirements under this Section.
- B. Except as otherwise provided in the conditions applicable to an emissions cap created under R18-2-306.02, the following changes may be made if the source keeps on site records of the changes according to Subsection I:

1. Implementing an alternative operating scenario, including raw material changes;
2. Changing process equipment (as long as the change does not require a new ATO), operating procedures, or making any other physical change if the permit requires the change to be logged;
3. Engaging in any new insignificant activity listed in A.A.C. R18-2-101.68.a through g but not listed in the permit;
4. Replacing an item of air pollution control equipment listed in the permit with an identical (same model, different serial number) item. The Director may require verification of efficiency of the new equipment by performance tests; and
5. A change that results in a decrease in actual emissions if the source wants to claim credit for the decrease in determining whether the source has a net emissions increase for any purpose. The logged information shall include a description of the change that will produce the decrease in actual emissions. A decrease that has not been logged is creditable only if the decrease is quantifiable, enforceable, and otherwise qualifies as a creditable decrease.

**C.** Except as provided in the conditions applicable to an emissions cap created under R18-2-306.02, the following changes may be made if the source provides written notice to the Department in advance of the change as provided below:

1. Replacing an item of air pollution control equipment listed in the permit with one that is not identical but that is substantially similar and has the same or better pollutant removal efficiency: 7 days. The Director may require verification of efficiency of the new equipment by performance tests;
2. A physical change or change in the method of operation that increases actual emissions more than 10% of the major source threshold for any conventional pollutant but does not require a permit revision: 7 days;
3. Replacing an item of air pollution control equipment listed in the permit with one that is not substantially similar but that has the same or better efficiency: 30 days. The Director may require verification of efficiency of the new equipment by performance tests;
4. A change that would trigger an applicable requirement that already exists in the permit: 30 days unless otherwise required by the applicable requirement;
5. A change that amounts to reconstruction of the source or an affected facility: 7 days. For purposes of this subsection, reconstruction of a source or an affected facility shall be presumed if the fixed capital cost of the new components exceeds 50% of the fixed capital cost of a comparable entirely new source or affected facility and the changes to the components have occurred over the 12 consecutive months beginning with commencement of construction; and
6. A change that will result in the emissions of a new regulated air pollutant above an applicable regulatory threshold but that does not trigger a new applicable requirement for that category: 30 days. For purposes of this requirement, an applicable regulatory threshold for a conventional air pollutant shall be 10% of the applicable major source threshold for that pollutant.

**D.** For each change under Condition XVII.C above, the written notice shall be by certified

mail or hand delivery and shall be received by the Director the minimum amount of time in advance of the change. Notifications of changes associated with emergency conditions, such as malfunctions necessitating the replacement of equipment, may be provided with less than required notice, but shall be provided as far in advance of the change, or if advance notification is not practicable, as soon after the change as possible. The written notice shall include:

1. When the proposed change will occur,
  2. A description of the change,
  3. Any change in emissions of regulated air pollutants, and
  4. Any permit term or condition that is no longer applicable as a result of the change.
- E.** The permit shield described in A.A.C. R18-2-325 shall not apply to any change made under this Section, other than implementation of an alternate operating scenario under Condition XVII.B.1.
- F.** Notwithstanding any other part of this Section, the Director may require a permit to be revised for any change that, when considered together with any other changes submitted by the same source under this Section over the term of the permit, constitutes a change under A.A.C. R18-2-317.01.A.
- G.** If a source change is described under both Conditions XVII.B and XVII.C above, the source shall comply with Condition XVII.C above. If a source change is described under both Condition XVII.C above and A.A.C. R18-2-317.01.B, the source shall comply with A.A.C. R18-2-317.01.B.
- H.** A copy of all logs required under Condition XVII.B shall be filed with the Director within 30 days after each anniversary of the permit issuance date. If no changes were made at the source requiring logging, a statement to that effect shall be filed instead.
- I.** Logging Requirements
1. Each log entry required by a change under A.A.C. R18-2-317.02.B shall include at least the following information:
    - a. A description of the change, including:
      - (1) A description of any process change.
      - (2) A description of any equipment change, which does not require a new or revised ATO(s), including both old and new equipment descriptions, model numbers and serial numbers, or any other unique equipment number.
      - (3) A description of any process material change.
    - b. The date and time that the change occurred.
    - c. The provision of A.A.C. R18-2-317.02.B that authorizes the change to be made with logging.

- d. The date the entry was made and the first and last name of the person making the entry.
2. Logs shall be kept for 5 years from the date created. Logging shall be performed in indelible ink in a bound log book with sequentially numbered pages, or in any other form, including electronic format, approved by the Director.

## **XVIII. TESTING REQUIREMENTS**

[A.A.C. R18-2-312]

- A.** The Permittee shall conduct performance tests as specified in the permit and at such other times as may be required by the Director.

**B.** Operational Conditions during Testing

Tests shall be conducted during operation at the maximum possible capacity of each unit under representative operational conditions unless other conditions are required by the applicable test method or in this permit. With prior written approval from the Director, testing may be performed at a lower rate. Operations during periods of start-up, shutdown, and malfunction (as defined in A.A.C. R18-2-101) shall not constitute representative operational conditions unless otherwise specified in the applicable standard.

- C.** Tests shall be conducted and data reduced in accordance with the test methods and procedures contained in the Arizona Testing Manual unless modified by the Director pursuant to A.A.C. R18-2-312.B.

**D.** Test Plan

At least 14 calendar days prior to performing a test, the Permittee shall submit a test plan to the Director in accordance with A.A.C. R18-2-312.B and the Arizona Testing Manual. This test plan shall include the following:

1. Test duration;
2. Test location(s);
3. Test method(s); and
4. Source operation and other parameters that may affect the test result.

**E.** Stack Sampling Facilities

The Permittee shall provide or cause to be provided, performance testing facilities as follows:

1. Sampling ports adequate for test methods applicable to the facility;
2. Safe sampling platform(s);
3. Safe access to sampling platform(s); and
4. Utilities for sampling and testing equipment.

**F.** Interpretation of Final Results

Each performance test shall consist of three separate runs using the applicable test method. Each run shall be conducted for the time and under the conditions specified in the applicable standard. For the purpose of determining compliance with an applicable standard, the arithmetic mean of the results of the three runs shall apply. In the event that a sample is accidentally lost or conditions occur in which one of the three runs is required to be discontinued because of forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological conditions, or other circumstances beyond the Permittee's control, compliance may, upon the Director's approval, be determined using the arithmetic mean of the results of the other two runs. If the Director or the Director's designee is present, tests may only be stopped with the Director's or such designee's approval. If the Director or the Director's designee is not present, tests may only be stopped for good cause. Good cause includes: forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological conditions, or other circumstances beyond the Permittee's control. Termination of any test without good cause after the first run is commenced shall constitute a failure of the test. Supporting documentation, which demonstrates good cause, shall be submitted.

**G. Report of Final Results**

A written report of the results of all performance tests shall be submitted to the Director within 30 days after the test is performed. The report shall be submitted in accordance with the Arizona Testing Manual and A.A.C. R18-2-312.A.

**XIX. PROPERTY RIGHTS**

This General Permit does not convey any property rights of any sort, or any exclusive privilege.  
[A.A.C. R18-2-306.A.8.d]

**XX. SEVERABILITY CLAUSE**

The provisions of this General Permit are severable. In the event of a challenge to any portion of this General Permit, or if any portion of this permit is held invalid, the remaining permit conditions remain valid and in force.

[A.A.C. R18-2-306.A.7]

**XXI. PERMIT SHIELD**

As of the date an ATO for a source is granted, compliance with the conditions of this General Permit shall be deemed compliance with all applicable requirements in effect on the date of General Permit issuance, provided that such applicable requirements are included and expressly identified in this permit. The permit shield shall not apply to any changes made pursuant to Section XVII of this Attachment.

[A.A.C. R18-2-325 and -508]

**XXII. PROTECTION OF STRATOSPHERIC OZONE**

If this source becomes subject to the provisions of 40 CFR Part 82, then the Permittee shall comply with these provisions accordingly.

[40 CFR Part 82]

**XXIII. APPLICABILITY OF NSPS/NESHAP GENERAL PROVISIONS**

For all equipment subject to a New Source Performance Standard, the Permittee shall comply with all applicable requirements contained in Subpart A of Title 40, Chapter 60 and Chapter 63 of the Code of Federal Regulations.

[40 CFR Part 60, 63]

**AIR QUALITY CONTROL GENERAL PERMIT  
FOR CONCRETE BATCH PLANTS**

**ATTACHMENT “B” : SPECIFIC CONDITIONS**

**I. RELATIONSHIP OF PERMIT TO APPLICABLE STATE IMPLEMENTATION PLAN FOR NEW OR MODIFIED SOURCES**

[ARS §49-404.c and -426]

This permit is issued pursuant to the provisions of the Arizona Revised Statutes (ARS) and constitutes an Installation Permit for the purpose of the applicable State Implementation Plan.

**II. FACILITY-WIDE REQUIREMENTS**

**A. Operating Limitations**

1. The Permittee shall not operate the concrete batch such that the throughput exceeds 2,000 cubic yards per day.

[A.A.C. R18-2-306.A.2]

2. While operating in Maricopa County, the Permittee shall not operate non-certified engines that are cumulatively greater than 750 horsepower. A non-certified engine is any engine that is not certified by the manufacturer to meet at least a Tier 1 emission standard or better in accordance with 40 CFR 89.112(a).

[A.A.C. R18-2-306.A.2, and 40 CFR 89.112(a)]

**B. Prohibited and Limited Coverage**

1. The Permittee shall not operate within the following portion of Pinal County: T4S, R3E – R4E, T5S, R3E – R4E (excluding sections 12, 13, 24, and 25) and identified in Appendix “A”.

[A.A.C. R18-2-306.A.2]

2. Between October 1<sup>st</sup> and March 31<sup>st</sup>, the Permittee shall not operate in portions of the Nogales area located in the southern part of Santa Cruz County (The portions of the following Townships which are within the State of Arizona and lie east of 111 degrees longitude: T23S, R13E, T23S, R14E, T24S, R13E, T24S, R14E identified in Appendix “B”), on any day that the Nogales particle pollution risk forecast at <http://www.azdeq.gov/environ/air/ozone/nogales.pdf> shows the risk of unhealthy particulate matter concentration to be “High” or if the Air Quality Index (AQI) for PM2.5 is forecast as “Unhealthy for Sensitive Groups”.

[A.A.C. R18-2-306.A.2]

**C. Additional Operational Limitations**

1. The Permittee shall not hold an ADEQ air quality permit and a county air quality permit concurrently for the concrete batch facility. If a county air quality permit is required to be obtained in accordance with Condition XI.D of this Attachment, the Permittee shall terminate this ADEQ permit after obtaining a county air quality permit.

[A.A.C. R18-2-324]

2. *The Permittee shall not operate the equipment covered under this permit with any other concrete batch plant, hot mix asphalt plant, or crushing & screening plant if they meet the definition of a stationary source under A.A.C.R18-2-101.139.*

3. Within 30 days of first obtaining coverage under this general permit, the Permittee shall have on-site or on-call a person certified in EPA Reference Method 9 unless all Method 9 observations or instantaneous visual observations required by this permit are conducted as Alternative Method-082 (Digital Camera Operating Technique). The Permittee shall certify the camera and the associated software in accordance with ALT-082 procedures. Any Method 9 test or instantaneous visual survey required by this permit can be conducted as ALT-082. The results of a Method 9 observation or any individual instantaneous visual observation conducted as ALT-082 shall be obtained within 30 minutes of completing the Method 9 observation or individual instantaneous visual observation

[A.A.C. R18-2-306.A.3.c]

- a. **Opacity Monitoring Methodology for Emissions Associated with Stacks**

The Permittee shall conduct a survey, of visible emissions emanating from the stack of the equipment by a certified EPA Reference Method 9 observer.

[A.A.C. R18-2-306.A.3.c]

- (1) If the opacity of the emissions observed appears to exceed the standard, the observer shall conduct a certified EPA Reference Method 9 observation.
- (2) The Permittee shall keep records of the survey and any EPA Reference Method 9 observations performed. These records shall include the emission point observed, location of observer, name of observer, date & time of observation, and the results of the observation.
- (3) If the observation indicates a Method 9 opacity reading in excess of 15 percent, the Permittee shall report this to ADEQ as an excess emission and initiate appropriate corrective action to reduce the opacity below 15 percent. The Permittee shall keep a record of the corrective action performed.

4. The Permittee shall operate and maintain all emission related equipment associated with this General Permit in accordance with manufacturer's specifications. If manufacturer specifications are not available, the Permittee shall develop and implement procedures for the proper operation and maintenance of each piece of equipment. A copy of the manufacturer specifications or the operation and maintenance plan shall be kept on-site and made available to ADEQ or the respective air quality control agency upon request.

[A.A.C. R18-2-306.A.2]

5. *The Permittee shall limit the operation of the equipment at the facility to the hours specified in the ATOs.*

[A.A.C. R18-2-306.01 and -331.A.3.a]

[Material permit conditions are indicated by underline and italics]

#### **D. Record Keeping Requirements**

1. The Permittee shall maintain records of the total daily production of material processed by the equipment covered under this General Permit.
2. The Permittee shall keep on-site records of maintenance performed on all emission related equipment.
3. The Permittee shall maintain on-site, records of the manufacturer's specifications for all concrete batch plant equipment utilized at the facility.
4. The Permittee shall maintain daily, monthly, and rolling twelve-month totals of the hours of operation of all the equipment at the facility.
5. All records, analyses, and reports shall be retained for a minimum of five years from the date of generation. The most recent two years of data shall be kept on-site.

**E. Reporting Requirements**

The Permittee shall submit summary reports of all monitoring and recordkeeping required by Attachment “B”, “C”, “D” and “E” at the time the compliance certifications required by Section VII of Attachment “A” are submitted.

[A.A.C. R18-2-306.A.2]

- F.** Until the Department makes the myDEQ online portal service available to apply and obtain permits, the Permittee shall follow the requirements of A.A.C. R18-2-503. Upon notification from the Director of the availability of the myDEQ online portal, the Permittee shall conduct all permitting services and transactions through the portal.

**III. CONCRETE BATCH PLANT REQUIREMENTS**

This Section applies to concrete batching operations and material handling operations.

**Opacity**

**A. Emission Limitations and Standards**

1. The Permittee shall not cause, allow or permit visible emissions from nonpoint sources in excess of 40 percent opacity as measured by EPA Reference Method 9.

[A.A.C. R18-2-614]

2. The Permittee shall not cause, allow or permit visible emissions from any point source, in excess of 20 percent opacity.

[A.A.C. R18-2-702.B.3]

3. Operating Requirements

Fugitive dust emitted from the concrete batch plant shall be controlled in accordance with Condition X of Attachment “B”.

[A.A.C. R18-2-723]

**B. Air Pollution Control Requirements**

The Permittee shall install, operate, and maintain the following air pollution controls on

the following emission sources:

1. Cement and Fly Ash Silos

- a. Baghouses, or equivalent, shall be operated in accordance with vendor specifications, to control emissions vented by cement/fly ash storage silos during the loading of cement or fly ash. If vendor specifications are not available, the Permittee shall develop and implement procedures for the proper operation and maintenance of each baghouse. A copy of the vendor specifications or the operation and maintenance plan shall be kept on-site and made available upon request.

[A.A.C. R18-2-306.A.2 and -331.A.3.e]

[Material permit conditions are indicated by underline and italics]

- b. Loading of cement or fly ash storage silos shall be conducted in such a manner that the displaced air does not bypass the baghouse and is not directly vented to the atmosphere.

[A.A.C. R18-2-306.A.2 and -331.A.3.e]

[Material permit conditions are indicated by underline and italics]

- c. Baghouses shall be maintained in accordance with the following:

[A.A.C. R18-2-306.A.3.d]

- (1) Prior to start-up, visual inspections shall be conducted on all venting ducts or lines, fittings (including dust shroud), and the blower;
- (2) Following shut-down, all pressurized systems shall be turned “off”;
- (3) All pressure and temperature gauges, flow meters, and other related instruments shall be checked daily to ensure proper functioning; any detected problems shall be corrected as soon as possible;
- (4) All ducts, hoods, framework, and housings shall be checked daily for signs of wear;
- (5) The fan motor, bearings, shaking device, reverse-jet blow rings, valves, and dampers shall be lubricated regularly and checked for wear; and
- (6) The Permittee shall maintain records which demonstrate compliance with the activities listed in Conditions III.B.1.c(1) through (5) above.

2. Product Delivery System

- a. For truck-mix facilities, a rubber sleeve, baghouse, or equivalent, shall be installed and maintained on the product delivery system to minimize visible emissions during material transfer to trucks.

[A.A.C. R18-2-306.A.2 and -331.A.3.e]

[Material Permit Conditions are indicated by underline and italics]

- b. A rubber sleeve, baghouse, or equivalent, shall be operated and maintained in accordance with the vendor specifications. If vendor

specifications are not available, the Permittee shall develop and implement procedures for the proper use (or operation) and maintenance of the rubber sleeve or equivalent. A copy of the vendor specifications or the operation and maintenance plan shall be kept on-site and made available upon request.

[A.A.C. R18-2-306.A.2 and -306.A.3.c]

3. Wet Suppression Systems

[A.A.C. R18-2-306.A.2 and -306.A.3.c]

a. Water sprays shall be operated and maintained in accordance with the following:

- (1) Prior to start-up, the water supply shall be checked, all nozzles shall be inspected, and all associated valves shall be opened;
- (2) Following shut-down, all nozzles shall be inspected and all associated valves shall be closed;
- (3) The spray system shall be checked daily for performance; and
- (4) All nozzles and valves shall be cleaned or replaced as needed.

b. Water trucks, or the equivalent, shall be operated and maintained in accordance with the following:

- (1) Prior to start-up, the water supply shall be checked, all nozzles shall be inspected, and all associated valves shall be opened;
- (2) Following shut-down, all nozzles shall be inspected and all associated valves shall be closed;
- (3) Safety and equipment checks shall be conducted daily; and
- (4) Normal vehicle maintenance shall be performed on a regular or "as needed" basis.

c. The Permittee shall maintain records which demonstrate compliance with the activities listed in Conditions III.B.3.a and b above.

[A.A.C. R18-2-306.A.4]

C. Monitoring, Maintenance and Recordkeeping

1. The Permittee shall conduct monthly opacity monitoring for all emission units as per Condition II.C.3.a.

2. The Permittee shall maintain logs of all maintenance activities performed on the baghouse. These logs shall include the type of maintenance activity being performed and the duration of each maintenance activity, including the date, starting time, and ending time of the maintenance activities. These logs shall be maintained on-site and shall be readily available to ADEQ representatives upon request.

[A.A.C. R18-2-306.A.3.c]

3. For each baghouse equipped with a pressure drop measuring device, the Permittee shall monitor and record twice per shift the pressure drop (in inches of

H<sub>2</sub>O) across the baghouse. The records shall include the dates and time each reading was taken.

[A.A.C. R18-2-306.A.3.c and -331.A.3.b]

**D. Permit Shield**

[A.A.C. R18-2-325]

Compliance with the conditions of this Part shall be deemed compliance with A.A.C. R18-2-614, -702.B.3, and -723.

**IV. WASH PLANT REQUIREMENTS**

- A.** The Permittee shall maintain and operate venturi scrubbers, or spray bars, or equivalent control equipment to control visible emissions from screening, handling, transporting or conveying of materials, or other operations likely to result in significant amounts of airborne dust.

[A.A.C. R18-2-306.A.2, -306.A.4, and -331.A.3.e]

[Material permit conditions are indicated by underline and italics]

- B.** Spray bar pollution control shall be utilized in accordance with “EPA Control of Air Emissions From Process Operations in the Rock Crushing Industry” (EPA 340/1-79-002), and “Wet Suppression System” (pages 15-34, amended as of January, 1979 (and no future amendments or editions)), as incorporated herein by reference and on file with the Office of the Secretary of State, with placement of spray bars and nozzles as required by the Director to minimize air pollution.

[A.A.C. R18-2-722.D]

- C.** The Permittee shall maintain a log of any maintenance activities performed on the spray bars. The log shall include the date, time, type and duration of maintenance activities performed.

[A.A.C. R18-2-306.A.4]

**D. Permit Shield**

[A.A.C. R18-2-325]

Compliance with the conditions of this Part shall be deemed compliance with A.A.C. R18-2-722.D.

**V. REQUIREMENTS FOR BOILERS**

**A. Applicability**

This Section is applicable to boilers with a maximum firing capacity of 10 MMBtu per hour.

**B. Fuel Limitation**

1. The Permittee shall only burn natural gas, liquefied petroleum gas (Butane or Propane), on specification used oil, or diesel fuel in the boiler(s), as identified on the ATO(s).

[A.A.C. R18-2-306.A.2]

2. If the Permittee is authorized to burn "on specification" used oil fuel in the ATO, it shall be used only under the following conditions:

[A.A.C. R18-2-306.A.2]

- a. The used oil fuel must be analyzed and certified by the marketer (oil supplier) to be "on specification" according to the definition in A.R.S. §49-801;
- b. The flash point shall be at least 100°F; and
- c. The contaminants must not exceed the following levels (in parts per million by weight):

Table 1

Pollutant	Level
Arsenic	5 ppm
Cadmium	2 ppm
Chromium	10 ppm
Lead	100 ppm
PCBs	2 ppm
Halogens	1000 ppm

- 3. The Permittee shall maintain copies of the fuel analysis supplied by the marketer for each batch of on specification used oil, and shall confirm that the contaminant levels specified in Condition V.B.2.c above are not exceeded.

**C. Particulate Matter**

1. Emission Limitation

The Permittee shall not cause, allow or permit the emission of particulate matter, caused by combustion of fuel, from any fuel-burning operation in excess of the amounts calculated by the following equation:

$$E = 1.02Q^{0.769}$$

where:

E = the maximum allowable particulate emissions rate in pounds-mass per hour.

Q = the heat input in million Btu per hour.

[A.A.C. R18-2-724.C.1]

2. Permit Shield

Compliance with the conditions of this Section shall be deemed compliance with A.A.C. R18-2-724.C.1.

[A.A.C. R18-2-325]

**D. Opacity Standards**

1. Emission Limitations and Standards

The Permittee shall not cause, allow or permit the opacity of any plume or effluent from any boiler to exceed 15 percent.

[A.A.C. R18-2-724.J]

2. Monitoring, Recordkeeping and Reporting Requirements

a. The Permittee shall report all six-minute periods in which the opacity of any plume or effluent exceeds 15 percent.

[A.A.C. R18-2-724.J]

b. The Permittee shall conduct monthly opacity monitoring for all emission units as per Condition II.C.3.a.

3. Permit Shield

Compliance with the conditions of this Section shall be deemed compliance with A.A.C. R18-2-724.J.

[A.A.C. R18-2-325]

**E. Sulfur Dioxide**

1. Emissions Limitation

While burning low-sulfur oil, the Permittee shall not cause, allow, or permit emissions of more than 1.0 pounds of sulfur dioxide per million Btu heat input. The Permittee is prohibited from the use of high sulfur oil (fuel containing 0.90 percent or more by weight of sulfur).

[A.A.C. R18-2-724.E and G]

2. Monitoring, Reporting and Record Keeping

The Permittee shall keep records of fuel supplier certifications or other appropriate documentation to demonstrate compliance with the sulfur content limit specified in the Condition V.E.1 above. The certification shall contain the information with regard to sulfur content and the method used to determine the sulfur content of fuel. These records shall be made available to ADEQ upon request.

[A.A.C. R18-2-306.A.3.c]

3. Permit Shield

Compliance with this Section shall be deemed compliance with A.A.C. R18-2-724.E and G.

[A.A.C. R18-2-325]

**F. Hazardous Air Pollutants**

1. Applicability

a. The requirements of this part are applicable to oil-fired boilers that are identified as applicable to NESHAP Subpart JJJJJ on the respective ATO.

b. For purposes of this Part, a new boiler is one which commenced construction or reconstruction after June 4, 2010.

[40 CFR 63.11194(b)]

c. For purposes of this Part, an existing boiler is one which commenced construction or reconstruction on or before June 4, 2010.

[40 CFR 63.11194(c)]

2. Operating Requirements

- a. The Permittee shall operate and maintain the boiler, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator or Director that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

[40 CFR 63.11205(a)]

- b. Work-Practice Standard

[40 CFR 63.11201(b)]

(1) Existing Boiler

(a) Initial Boiler Tune-up

The Permittee operating an existing oil-fired boiler shall conduct a tune-up of the boiler according to the procedures stated in Condition V.F.2.c.

[40 CFR 63.11214(b)]

(b) Subsequent Boiler Tune-ups

- (i) Subsequent tune-ups for boilers greater than 5 MMBtu/hr heat input shall be conducted biennially (every two years), and shall be conducted no more than 25 months after the previous tune-up.

[40 CFR 63.11223(b)]

- (ii) Subsequent tune-ups for boilers less than or equal to 5 MMBtu/hr shall be conducted every 5 years. Each 5 year tune-up shall be conducted no more than 61 months after the previous tune-up.

[40 CFR 63.11223(e)]

(2) New Boiler

(a) Initial Boiler Tune-up

- (i) The Permittee operating a new boiler with a heat input rate greater than 5 MMBtu/hr shall conduct an initial boiler tune-up according to the procedures stated in Condition V.F.2.c no later than 25 months after the initial startup.

[40 CFR 63.11223(b)]

- (ii) The Permittee operating a new oil-fired boiler with a heat input rate less than or equal to 5 MMBtu/hr shall conduct a tune-up every 5 years. The tune-up shall be conducted according

to the procedures stated in Condition V.F.2.c no later than 61 months after the initial startup, or from the last tune-up.

[40 CFR 63.11223(e)]

(b) Subsequent Boiler Tune-ups

- (i) Subsequent tune-ups for boilers greater than 5 MMBtu/hr heat input shall be conducted biennially, and shall be conducted no more than 25 months after the previous tune-up.

[40 CFR 63.11223(b)]

c. Tune-up Procedures

[40 CFR 63.11223(b)]

In order to complete a tune up, the Permittee shall:

- (1) As applicable, inspect the burner, and clean or replace any components of the burner as necessary (this may be delayed until the next scheduled unit shutdown, but the burner must be inspected at least once every 36 months).

[40 CFR 63.11223(b)(1)]

- (2) Inspects the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available.

[40 CFR 63.11223(b)(2)]

- (3) Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly.

[40 CFR 63.11223(b)(3)]

- (4) Optimize total emissions of carbon monoxide. This optimization should be consistent with the manufacturer's specifications, if available.

[40 CFR 63.11223(b)(4)]

- (5) Measure the concentrations in the effluent stream of carbon monoxide in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made).

[40 CFR 63.11223(b)(5)]

- (6) Maintain onsite and submit, if requested by the Administrator or Director a report containing the information in the following conditions:

[40 CFR 63.11223(b)(6)]

- (a) The concentrations of CO in the effluent stream in parts per million, by volume, and oxygen in volume percent, measured before and after the tune-up of the boiler.

[40 CFR 63.11223(b)(6)(i)]

(b) A description of any corrective actions taken as a part of the tune-up of the boiler.

[40 CFR 63.11223(b)(6)(ii)]

(c) The type and amount of fuel used over the 12 months prior to the tune-up of the boiler, but only if the unit was physically and legally capable of using more than one type of fuel during that period. Units sharing a fuel meter may estimate the fuel use by each unit.

[40 CFR 63.11223(b)(6)(iii)]

(7) If the unit is not operating on the required date for a tune-up, the tune-up must be conducted within one week of startup.

[40 CFR 63.11223(b)(7)]

### 3. Notification, Reporting and Recordkeeping Requirements

a. As required in 40 CFR 63.9(b)(2), the Permittee shall submit the initial notification within 120 days after the facility becomes subject to this standard.

[40 CFR 63.11225(a)(2)]

b. The Permittee shall submit a Notice of Compliance Status in accordance with 63.9(h) no later than 120 days after the facility becomes subject to this standard, and shall include certification(s) of compliance statement signed by a responsible official that the facility complies with the requirements of Condition V.F.2.b to conduct an initial tune-up of the boiler.

[40 CFR 63.11225(a)(4)]

c. The Permittee shall keep the following records to document continuous compliance conformance with the tune up requirements:

(1) Records shall identify each boiler, the date of tune-up, the procedures followed for the tune-up, and the manufacturer's specifications to which the boiler was tuned.

(2) Records shall document the fuel type(s) used monthly by each boiler, including, but not limited to, a description of the fuel and the total fuel usage amount with units of measure.

[40 CFR 63.11225(c)(2)]

d. The Permittee shall maintain onsite and submit, if requested by the Administrator or Director, a biennial report containing the following information about the tune-ups.

[40 CFR 63.11223(b)(6), 11225(c)(4), and -(c)(5)]

(1) The concentrations of CO in the effluent stream in parts per million, by volume, and oxygen in volume percent, measured before and after the tune-up of the boiler.

(2) A description of any corrective actions taken as a part of the tune-up of the boiler.

- (3) The type and amount of fuel used over the 12 months prior to the biennial tune-up of the boiler.
- (4) Records of occurrence, duration, and corrective action taken for each malfunction of the boiler.

4. Permit Shield

Compliance with this Part shall be deemed compliance 40 CFR 63.1194, 63.11201(b), 63.11205(a), 63.11214(b), 63.11223(b), 63.11223(e), 63.11225(a)(2), and 63.11225(c).

[A.A.C. R18-2-325]

**VI. INTERNAL COMBUSTION ENGINE(S)-NON-NSPS**

**A. Applicability**

The requirements under this Section are applicable to any existing engine not already subject to 40 CFR 60 Subpart IIII or 40 CFR 60 Subpart JJJJ.

**B. Particulate Matter and Opacity**

1. Emission Limitations and Standards

- a. The Permittee shall not cause or allow to be discharged into the atmosphere from the stack(s) particulate matter in excess of the amount calculated by the following equation:

[A.A.C. R18-2-719.C.1]

$$E = 1.02 Q^{0.769}$$

where:

E = The maximum allowable particulate emissions rate in pounds-mass per hour

Q = The heat input in million Btu per hour

- b. For the purposes of the calculations required in Condition VI.B.1.a above, the heat input shall be the aggregate heat content of all fuels whose products of combustion pass through a stack or other outlet. The total heat input of all operating fuel-burning units at a plant or premises shall be used for determining the maximum allowable amount of particulate matter which may be emitted.

[A.A.C. R18-2-719.B]

- c. The Permittee shall not cause, allow or permit to be emitted into the atmosphere from any engine, smoke for any period greater than 10 consecutive seconds which exceeds 40% opacity. Visible emissions when starting cold equipment shall be exempt from this requirement for the first 10 minutes.

[A.A.C. R18-2-719.E]

2. Monitoring, Recordkeeping and Reporting Requirements

- a. The Permittee shall conduct quarterly periodic opacity monitoring for all

emission units as per Condition II.C.3.a.

[A.A.C. R18-2-306.A.3.c, .306.A.4.a and 306.A.5]

- b. The Permittee shall keep records of a current, valid purchase contract, tariff sheet or transportation contract. The records shall contain information regarding the lower heating value of the fuel. These records shall be made available to ADEQ upon request.

[A.A.C. R18-2-306.A.3.c and 306.A.4.a]

3. Permit Shield

Compliance with the conditions of this Part shall be deemed compliance with A.A.C. R18-2-719.B, -C.1 and -E.

[A.A.C. R18-2-325]

## C. Sulfur Dioxide

1. Emission Limitations and Standards

The Permittee shall not emit or cause to emit more than 1.0 pound of sulfur dioxide per million Btu heat input

[A.A.C. R18-2-719.F]

2. Recordkeeping and Reporting Requirements

- a. For spark ignition (SI) engines, the Permittee shall maintain records of the gas quality characteristics in a current, valid purchase contract, tariff sheet or transportation contract for the gaseous fuel, specifying that the maximum total sulfur content of the fuel.

[A.A.C. R18-2-306.A.3.c and A.A.C. R18-2-719.I]

- b. For diesel engines, the Permittee shall keep records of fuel supplier certifications or other documentation listing the sulfur content to demonstrate compliance with the sulfur content limit specified in Condition VI.C.1 of this Attachment. These records shall be made available to ADEQ upon request.

[A.A.C. R18-2-306.A.3.c and -719.I]

- c. The Permittee shall report to the Director any daily period during which the sulfur content of the fuel being fired in the machine exceeds 0.8%.

[A.A.C. R18-2-719.J]

3. Permit Shield

Compliance with the conditions of this Part shall be deemed compliance with A.A.C. R18-2-719.F, -H, -I, and -J.

[A.A.C. R18-2-325]

## D. Hazardous Air Pollutants

1. Applicability

- a. The requirements of this Section are applicable to any internal combustion engine marked on the ATO as applicable to 40 CFR 63 Subpart ZZZZ.

- b. A new or reconstructed stationary CI/ SI engine (constructed after June 12, 2006) shall meet the NESHAP requirements under 40 CFR 63 Subpart ZZZZ by meeting the requirements of 40 CFR part 60 subpart IIII/JJJJ in Section VII or VIII as applicable.

[40 CFR 63.6590(c)(1)]

- c. If an existing CI engine with a site rating of more than 300 HP located at an area source of HAP emissions is certified to the Tier 3 (Tier 2 for engines above 560 kilowatt (kW)) emission standards in Table 1 of 40 CFR 89.112), the Permittee may comply with the requirements under this Section by meeting the requirements for Tier 3 engines (Tier 2 for engines above 560 kW) in 40 CFR part 60 subpart IIII instead of the emission limitations and other requirements that would otherwise apply under this Part.

[40 CFR 63.6603(e)]

## 2. General Requirements

- a. The Permittee shall operate and maintain at all times the engine including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions.

[40 CFR 63.6605(b)]

- b. The Permittee shall minimize the engine time spent at idle during startup 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 shall apply.

[40 CFR 63.6625(h)]

## 3. Requirements for Emergency Engines

### a. Operation Requirements

- (1) The Permittee shall operate and maintain the engine and after-treatment control device (if any) according to the manufacturer's emission-related written instructions or develop a maintenance plan which shall provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.

[40 CFR 63.6625(e)]

- (2) The Permittee shall comply with the following operation and maintenance requirements:

[40 CFR 63.6603(a), and 40 CFR 63, Subpart ZZZZ, Table 2d]

- (3) The Permittee shall change the oil and filter every 500 hours operation or annually, whichever comes first. If the Permittee prefers to extend the oil change requirement, an oil analysis program described below shall be completed. The oil analysis must be performed at the same frequency specified for changing the oil.

- (a) The Permittee shall at a minimum analyze the following three parameters: Total Acid Number (for CI engines), Total Base Number (for SI engines), viscosity and water content. The condemning limits for these parameters are as follows:
- (i) For natural gas-fired engine, Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new, and/or for diesel-fired engine, Total Base Number is less than 30 percent of the Total Base Number of the oil when new;
  - (ii) Viscosity: changed more than 20 percent from the viscosity of oil when new; and
  - (iii) Water Content: greater than 0.5 percent by volume.
  - (iv) If all of the above limits are not exceeded, the Permittee is not required to change the oil. If any of the above limits are exceeded, the Permittee shall change the oil within 2 business days of receiving the results of the analysis or before commencing operation, whichever is later. Records shall be kept of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program shall be part of the maintenance plan for the operation of the engine.
- (b) Every 1,000 hours of operation or annually, whichever comes first, inspect and replace as necessary, spark plugs for SI engine, and/or air cleaner for CI engine.  
[40 CFR 63, Subpart ZZZZ, Table 2d]
- (c) The Permittee shall inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.  
[40 CFR 63, Subpart ZZZZ, Table 2d]
- (4) If the emergency engine is operating during an emergency and it is not possible to shut down the engine in order to perform the work practice requirements on the schedule required in Conditions VI.D.3.a(3) through (c), or if performing the work practice on the required schedule would otherwise pose an unacceptable risk under federal, state, or local law, the work practice can be delayed until the emergency is over or the unacceptable risk under federal, state, or local law has abated. The work practice shall be performed as soon as practicable after the emergency has ended or the unacceptable risk under federal,

state, or local law has abated.

[40 CFR 63 Subpart ZZZZ, Table 2d]

- (5) The Permittee shall operate the emergency engines according to the requirements in Conditions VI.D.3.a(5)(a) through (c) below. In order for the engines to be considered emergency stationary ICE under 40 CFR 63 Subpart ZZZZ, any operation other than emergency operation, maintenance response, and operation in non-emergency situations for 50 hours per year, as described in these Conditions, is prohibited. If the emergency engine is not operated in accordance with the requirements in Conditions VI.D.3.a(5)(a) through (c) below, the engine will not be considered an emergency engine and must meet all requirements for non-emergency engines.

[40 CFR 60.6640 (f)]

- (a) There is no time limit on the use of emergency engine in emergency situations.

[40 CFR 60.6640 (f)(1)]

- (b) The Permittee may operate the emergency engine for any combination of the purposes specified in Condition in Conditions VI.D.3.a(5)(b)(i) through (iii) below for a maximum of 100 hours per calendar year. Any non-emergency situations as allowed by Condition VI.D.3.a(5)(c) below counts as part of the 100 hours per calendar year allowed by this condition.

[40 CFR 63.6640(f)(2)]

- (i) The Permittee may operate the emergency engine for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by Federal, State, or local government, the manufacturer, the vendor, or the insurance company associated with the engine. The Permittee may petition the Administrator and the Director for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the Permittee maintains records indicating that the Federal, State, or local standards require maintenance and testing beyond 100 hours per year. Copies of records shall be made available to ADEQ upon request.

[40 CFR 63.6640 (f)(2)(i)]

- (ii) The Permittee may operate the emergency engine for emergency demand response for periods in which the Reliability Coordinator under the North American Electric Reliability Corporation (NERC) Reliability Standard EOP-002-3, Capacity and Energy Emergencies (incorporated by reference see 40 CFR 60.17), or other authorized entity as determined by the Reliability Coordinator, has declared an Energy

Emergency Alert Level 2 as defined in the NERC Reliability Standard EOP-002-3.

[40 CFR 63.6640 (f)(2)(ii)]

- (iii) The Permittee may operate the emergency engine for periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency.

[40 CFR 63.6640 (f)(2)(iii)]

- (c) The Permittee may operate an emergency engine for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in Conditions VI.D.3.a(5)(b)(i) through (iii) above. Except as provided in Conditions VI.D.3.a(5)(b)(i) through (iii) above and Condition VI.D.3.a(5)(c)(i) below, the 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

[40 CFR 63.6640(f)(4)]

- (i) The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the following conditions are met.

[40 CFR 63.6640(f)(4)(ii)]

- (a) The engine is dispatched by the local balancing authority or local transmission and distribution system operator.
- (b) The dispatch follows reliability emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines.
- (c) The power is provided only to the facility itself or to support the local transmission and distribution system.
- (d) The owner or operator identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the engine. The local balancing authority or local transmission and distribution system operator may keep these records on

behalf of the engine owner or operator.

- (d) Any emergency engine that has a site rating of more than 100 brake HP, a displacement of less than 30 liters per cylinder, uses diesel fuel, and operates or is contractually obligated to be available for more than 15 hours per calendar year for purposes specified in Conditions VI.D.3.a(5)(b)(ii) and (iii) above or that operates for the purpose specified in Condition VI.D.3.a(5)(c)(i) above, the Permittee shall use diesel fuel that meets the requirements in 40 CFR 80.510(b) for non-road diesel fuel, except that any existing fuel purchased (or otherwise obtained) prior to January 1, 2015, may be used until depleted.

[40 CFR 63.6604(b)]

- (e) The Permittee shall install a non-resettable hour meter if one is not already installed.

[40 CFR 63.6625(f), R18-2-331.A.3.c]

[Material Permit Conditions are indicated by underline and italics]

b. Recordkeeping Requirements

- (1) The Permittee shall keep records of the hours of operation of the RICE that is recorded through the non-resettable hour meter. Records shall include the date, start and stop times, hours spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. If the engine is used for the purposes specified in Conditions VI.D.3.a(5)(b)(ii) and (iii) or Condition VI.D.3.a(5)(c)(i), the Permittee shall keep records of the notification of the emergency situation and the date, start time, and end time of the engine operation for these purposes .

[40 CFR 63.6655(f)]

- (2) The Permittee shall keep records of the parameters that are analyzed and the results of the oil analysis, if any, and the oil changes for the engine.

[40 CFR 63.6625(i) and (j)]

- (3) The Permittee shall keep records of the maintenance conducted on the engine in order to demonstrate that the engine and after-treatment control device (if any) were operated and maintained in accordance with the Permittee's maintenance plan.

[40 CFR 63.6655(e)]

- (4) The Permittee shall keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The Permittee shall document how many hours are spent for emergency operation; including what classified the operation as emergency and how many hours are spent for non-emergency operation. If the engines are used for demand response operation, the Permittee shall keep records of the notification of the emergency situation, and the time the engine was operated as part of demand response.

[40 CFR 63.6655(f)(2)]

c. Reporting Requirements

- (1) For emergency engine with a site rating of more than 100 brake HP that operates or is contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in Conditions VI.D.3.a(5)(b)(ii) and (iii) or Condition VI.D.3.a(5)(c)(i), the Permittee shall submit to the Administrator and Director annually, a report according to the following requirements:

[40 CFR 63.6650(h)]

- (a) Company name and address where the engine is located.  
[40 CFR 63.6650(h)(1)(i)]
- (b) Date of the report and beginning and ending dates of the reporting period.  
[40 CFR 63.6650(h)(1)(ii)]
- (c) Engine site rating and model year.  
[40 CFR 63.6650(h)(1)(iii)]
- (d) Latitude and longitude of the engine in decimal degrees reported to the fifth decimal place.  
[40 CFR 63.6650(h)(1)(iv)]
- (e) Hours operated for the purpose specified in Condition Conditions VI.D.3.a(5)(b)(ii) and (iii), including the date, start time, and end time for the engine operation.  
[40 CFR 63.6650(h)(1)(v)]
- (f) Number of hours the engine is contractually obligated to be available for the purposes specified in Conditions VI.D.3.a(5)(b)(ii) and (iii).  
[40 CFR 63.6650(h)(1)(vi)]
- (g) Hours spent for operation for the purposes specified in Condition VI.D.3.a(5)(c)(i), including the date, start time, and end time for engine operation for the purposes specified in Condition VI.D.3.a(5)(c)(i) The report shall also identify the entity that dispatched the engine and the situation that necessitated the dispatch of the engine.  
[40 CFR 63.6650(h)(1)(vii)]
- (h) If there were no deviations from the fuel requirements in 40 CFR 80.510(b) that apply to the engine (if any), a statement that there were no deviations from the fuel requirements during the reporting period.  
[40 CFR 63.6650(h)(1)(viii)]
- (i) If there were deviations from the fuel requirements in 40 CFR 80.510(b) that apply to the engine (if any), information on the number, duration, and cause of deviations, and the corrective action taken.  
[40 CFR 63.6650(h)(1)(ix)]

- (2) The first annual report shall cover the calendar year 2015 and must be submitted no later than March 31, 2016. Subsequent

annual reports for each calendar year must be submitted no later than March 31 of the following calendar year.

[40 CFR 63.6650(h)(2)]

- (3) The annual report shall be submitted electronically using the subpart specific reporting form in the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) ([www.edpa.gov/cdx](http://www.edpa.gov/cdx)). However, if the reporting form specific to this subpart is not available in CEDRI at the time that the report is due, the written report shall be submitted to the Administrator and Director at their respective addresses below.

(a) EPA Region IX, Director, Air Division  
75<sup>th</sup> Hawthorne Street  
San Francisco, CA 94105

(b) Director, Air Quality Division  
1110 W. Washington Street  
Phoenix, AZ 85007

[40 CFR 63.6650(h)(3)]

4. Requirements for Non Emergency Compression Ignition Engines

a. Operation Requirements for CI Engines < 300 HP

- (1) The Permittee shall operate and maintain the engine and after-treatment control device (if any) according to the manufacturer's emission-related written instructions or develop a maintenance plan which shall provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.

[40 CFR 63.6625(e)]

- (2) The Permittee shall comply with the following operation and maintenance requirements:

[40 CFR 63.6603(a), and 40 CFR 63, Subpart ZZZZ, Table 2d]

- (a) The Permittee shall change the oil and filter every 1,000 hours operation or annually, whichever comes first. If the Permittee prefers to extend the oil change requirement, an oil analysis program described below shall be completed. The oil analysis shall be performed at the same frequency specified for changing the oil.

[40 CFR 63.6625(i) and (j), and 40 CFR Table 2d of Subpart ZZZZ]

- (i) The Permittee shall at a minimum analyze the following three parameters: Total Acid Number, viscosity and water content. The condemning limits for these parameters are as follows:

- (a) Total Base Number is less than 30 percent of the Total Base Number of the oil when new,

(b) Viscosity has changed more than 20 percent from the viscosity of oil when new;

(c) Water Content is greater than 0.5 percent by volume.

(ii) If all of the above limits are not exceeded, the Permittee is not required to change the oil. If any of the above limits are exceeded, the Permittee shall change the oil within 2 business days of receiving the results of the analysis or before commencing operation, whichever is later. Records must be kept of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program shall be part of the maintenance plan for the operation of the engine.

(b) Every 1,000 hours of operation or annually, whichever comes first, the Permittee shall inspect and replace air cleaner as necessary.

[40 CFR 63, Subpart ZZZZ, Table 2d]

(c) Every 500 hours of operation or annually, whichever comes first, the Permittee shall inspect all hoses and belts and replace as necessary.

[40 CFR 63, Subpart ZZZZ, Table 2d]

### (3) Continuous Compliance Requirements

The Permittee shall demonstrate continuous compliance by operating and maintaining the engine according to the manufacturer's emission-related operation and maintenance instructions; or by developing and follow its own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions

[Table 6 to 40 CFR 63 Subpart ZZZZ]

#### b. Operating Requirements for CI Engines >300 HP

##### (1) Fuel Limitations

The Permittee shall use diesel fuel that meets the requirements in 40 CFR 80.510(b) for non-road diesel fuel.

[40 CFR 63.6604(a)]

##### (2) Emission Limitations

(a) The Permittee shall comply with either of the following emission limitations:

[40 CFR 63.6603(a), and 40 CFR 63, Subpart ZZZZ, Table 2d]

(i) The Permittee shall limit concentration of CO in

the engine exhaust to

- (a) 49 ppmv at 15 percent O<sub>2</sub> for engines between 300-500 HP,
  - (b) 23 ppmvd at 15 percent O<sub>2</sub> for engines greater than 500 HP;
  - (ii) The Permittee shall reduce CO emissions by 70%
- (b) If any more than 500 HP engine is certified to the Tier 1 or Tier 2 emission standards in Table 1 of 40 CFR 89.112, the Permittee may, for up to 12 years after the installation date of the engine but not later than June 1, 2018, choose to comply with the management practices in Condition VI.D.4.a(2) instead of the applicable emission limitations in Condition VI.D.4.b(2) above, and crankcase ventilation system requirements Condition VI.D.4.b(3) below. The Permittee shall comply with the emission limitations in Condition VI.D.4.b(2) no later than 12 years after the installation date of the engine or June 1, 2018, whichever is earlier. The Permittee shall also comply with the crankcase ventilation system requirements in Condition VI.D.4.b(3) no later than 12 years after the installation date of the engine or June 1, 2018, whichever is earlier.
- [40 CFR 63.6603(d)]

(3) Operation and Maintenance Requirements

- (a) 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)]
- (b) If the CI engine is not equipped with a closed crankcase ventilation system, the Permittee shall either
    - (i) Install a closed crankcase ventilation system that prevents crankcase emissions from being emitted to the atmosphere, or
- [40 CFR 63.6625(g)(1)]
- (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.
- [40 CFR 63.6625(g)(2)]

c. Operating Limitations (Only for Engines > 500 HP)

[40 CFR 63.6603, Table 2b to 40 CFR 63 Subpart ZZZZ]

- (1) If the Permittee is using an oxidation catalyst to comply with the requirement to limit or reduce the concentration of CO;
  - (a) The Permittee shall 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
  - (b) The Permittee shall maintain the temperature of the engine exhaust so that the catalyst inlet temperature is greater than or equal to 450° F and less than or equal to 1350° F.
- (2) If the Permittee is not using an oxidation catalyst to comply with the requirement to limit or reduce the concentration of CO, the Permittee shall comply with any operating limitations approved by the Director.

d. Monitoring Requirements (Only for Engines greater than 500 HP)

The Permittee may choose use Continuous Emissions Monitoring System (CEMS) or Continuous Parametric Monitoring System (CPMS) for monitoring CO emissions.

- (1) If the Permittee elects to use CEMS, the Permittee shall install, operate, and maintain a CEMS to monitor CO and either O<sub>2</sub> or CO<sub>2</sub> according to the requirements in 40 CFR 63.6625(a). If the Permittee is meeting a requirement to reduce CO emissions, the CEMS must be installed at both the inlet and outlet of the control device. If the Permittee is meeting a requirement to limit the concentration of CO, the CEMS shall be installed at the outlet of the control device.

[40 CFR 63.6625(a) and A.A.C R18-2-331.A.3.c]  
[Material Permit Condition indicated by italics and underline]

- (2) If the Permittee is complying with the requirement to reduce CO emissions, or to limit the concentration of CO, and is using oxidation catalyst and CPMS, the Permittee shall install, operate, and maintain each CPMS to continuously monitor catalyst inlet temperature and catalyst pressure drop according to the requirements in in 40 CFR 63.6625(b).

[40 CFR 63.6625(b) and A.A.C R18-2-331.A.3.c]  
[Material Permit Condition indicated by italics and underline]

- (3) If the Permittee is complying with the requirement to reduce CO emissions, or to limit the concentration of CO, and is not using oxidation catalyst, the Permittee shall install, operate, and maintain CPMS to continuously monitor operating parameters approved by the Director (if any) according to the requirements in 40 CFR 63.6625(b).

[40 CFR 63.6625(b) and A.A.C R18-2-331.A.3.c]  
[Material Permit Condition indicated by italics and underline]

e. Initial Performance Test/Compliance Demonstration

- (1) Initial Performance Test  
[40 CFR 63.6612(a), 40 CFR 63.6630, Table 5 to 40 CFR 63 Subpart ZZZZ]
  - (a) For the engines not equipped with CEMS
    - (i) The Permittee shall conduct initial performance test in accordance with the method in Table 5 of 40 CFR 63 Subpart ZZZZ to demonstrate compliance with the emission limits in Condition VI.D.4.b(2). If the Permittee is complying with the requirement to reduce CO emissions, or to limit the concentration of CO, and is using oxidation catalyst and CPMS, the Permittee shall record the catalyst pressure drop and catalyst inlet temperature during the initial performance test using the CPMS installed according to the requirements in 40 CFR 63.6625(b).
    - (ii) If the Permittee is complying with the requirement to reduce CO emissions, or to limit the concentration of CO, and is not using oxidation catalyst, the Permittee shall record the approved operating parameters (if any) using the CPMS installed according to the requirements in 40 CFR 63.6625(b).
  - (b) For engines equipped with CEMS, the Permittee shall demonstrate initial compliance by
    - (i) Conducting a performance evaluation of the CEMS using PS 3 and 4A of 40 CFR part 60, appendix B
    - (ii) Demonstrating that the average concentration of CO, or the average reduction of CO calculated using 40 CFR 63.6620 is less than or equal to the CO emission limitation. The initial test shall comprise the first 4-hour period after successful validation of the CEMS. Compliance shall be based on the average concentration measured during the 4-hour period or, the average percent reduction achieved during the 4-hour period.
  - (c) 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 described in the Conditions below:  
[40 CFR 63.6612(b)]
    - (i) The test must have been conducted using the same methods specified in this subpart, 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 Director.
- (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.

f. Continuous Compliance/Subsequent Performance Test Requirements

- (1) For engines not using CEMS, the Permittee shall conduct subsequent performance tests every 8,760 hours or 3 years, whichever comes first, in accordance with the method in Table 5 of 40 CFR 63 Subpart ZZZZ to demonstrate compliance with the emission limits in Condition VI.D.4.b(2).

[40 CFR 63.6615, Tables 3 and 6 to 40 CFR 63 Subpart ZZZZ]

- (2) For engines using oxidation catalyst,

- (a) The Permittee shall collect the catalyst inlet temperature data according to 40 CFR 63.6625(b), reduce these data to 4-hour rolling averages; and maintain the 4-hour rolling averages within the operating limitations for the catalyst inlet temperature established during the performance test; and

[40 CFR 63.6640(a), Table 6 to 40 CFR 63 Subpart ZZZZ]

- (b) Measure 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.

[40 CFR 63.6640(a), Table 6 to 40 CFR 63 Subpart ZZZZ]

- (c) If the Permittee changes the catalyst, the Permittee shall reestablish the values of the operating parameters measured during the initial performance test. While reestablishing the values of the operating parameters, the Permittee shall also conduct a performance test to demonstrate that the Permittee is meeting the required emission limitation applicable to your stationary RICE.

[40 CFR 63.6640(b)]

- (3) For engines not using oxidation catalyst,

the Permittee shall collect the approved operating parameter (if any) data according to 40 CFR 63.6625(b); reduce these data to 4-hour rolling averages; and maintain the 4-hour rolling averages within the operating limitations for the operating parameters established during the performance test.

[40 CFR 63.6640, Table 6 to 40 CFR 63 Subpart ZZZZ]

g. Notification Requirements

- (1) The Permittee shall submit all applicable notifications in 40 CFR 63.7(b) and (c), 63.8(e), (f)(4) and (f)(6), 63.9(b) through (e), and (g) and (h).  
[40 CFR 6645(a)(2) and (a)(5)]
- (2) The Permittee shall submit a Notification of Intent to conduct a performance test at least 60 days before the performance test is scheduled to begin as required in 40 CFR 63.7(b)(1).  
[40 CFR 63.6645(g)]
- (3) For engines greater than 300 HP required to conduct a performance test or initial compliance demonstration, the Permittee shall submit a Notification of Compliance Status according to 40 CFR 63.9(h)(2)(ii).  
[40 CFR 63.6645(h)]

h. Recordkeeping Requirements

- (1) The Permittee shall keep the following records:  
[40 CFR 63.6655(a)]
  - (a) A copy of each notification and report that you submitted to comply with this subpart, including all documentation supporting any Initial Notification or Notification of Compliance Status that you submitted, according to the requirement in 40 CFR 63.10(b)(2)(xiv);
  - (b) Records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment;
  - (c) Records of performance tests and performance evaluations as required in 40 CFR 63.10(b)(2)(viii);
  - (d) Records of all required maintenance performed on the air pollution control and monitoring equipment; and
  - (e) Records of actions taken during periods of malfunction to minimize emissions in accordance with Condition VI.D.2.a, including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.
- (2) For each CEMS or CPMS, the Permittee shall keep the following records.
  - (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.
- (3) The Permittee shall keep the records of continuous compliance with each emission or operating limitation for the requirements in Condition VI.D.4.f.  
[40 CFR 63.6655(d)]
- (4) For engines less than 300 HP and subject to management practices as shown in Condition VI.D.4.a(2), the Permittee shall keep records of the maintenance conducted on the stationary RICE in order to demonstrate that , the Permittee operated and maintained the stationary RICE and after-treatment control device (if any) according to the Permittee’s own maintenance plan.  
[40 CFR 63.6655(e)]

i. Reporting Requirements

- (1) For engines greater than 300 HP, the Permittee shall submit semi-annual compliance in accordance with Section VII of Attachment A.  
[40 CFR 63.6650(a) and (b)]
- (2) The Compliance report shall contain the following information  
[40 CFR 63.6650(c)]
  - (a) Company name and address;
  - (b) Statement by a responsible official, with that official's name, title, and signature, certifying the accuracy of the content of the report;
  - (c) Date of report and beginning and ending dates of the reporting period;
  - (d) If the Permittee 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 the Permittee during a malfunction of an affected source to minimize emissions in accordance with Condition VI.D.2.a, including actions taken to correct a malfunction;
  - (e) If there are no deviations from any applicable emission or operating limitations, a statement that there were no deviations from the emission or operating limitations during the reporting period;
  - (f) If there were no periods during which the continuous monitoring system (CMS), including CEMS and CPMS,

was out-of-control, as specified in §63.8(c)(7), a statement that there were no periods during which the CMS was out-of-control during the reporting period;

- (g) For each deviation from an emission or operating limitation that occurs for a stationary RICE where the Permittee is not using a CMS to comply with the emission or operating limitations in this subpart, the Compliance report shall contain the information in Conditions VI.D.4.i(2)(a) through (d) above and the information below:

[40 CFR 63.6650(d)]

- (i) The total operating time of the stationary RICE at which the deviation occurred during the reporting period; and
- (ii) Information on the number, duration, and cause of deviations (including unknown cause, if applicable), as applicable, and the corrective action taken.

- (h) For each deviation from an emission or operating limitation occurring for a stationary RICE where you are using a CMS to comply with the emission and operating limitations in this subpart, you must include information in Conditions VI.D.4.i(2)(a) through (d) above and the information below:

[40 CFR 63.6650(e)]

- (i) The date and time that each malfunction started and stopped.
- (ii) The date, time, and duration that each CMS was inoperative, except for zero (low-level) and high-level checks.
- (iii) The date, time, and duration that each CMS was out-of-control, including the information in 40 CFR 63.8(c)(8).
- (iv) The date and time that each deviation started and stopped, and whether each deviation occurred during a period of malfunction or during another period.
- (v) A summary of the total duration of the deviation during the reporting period, and the total duration as a percent of the total source operating time during that reporting period.
- (vi) A breakdown of the total duration of the deviations during the reporting period into those that are due to control equipment problems, process problems, other known causes, and other

unknown causes.

- (vii) A summary of the total duration of CMS downtime during the reporting period, and the total duration of CMS downtime as a percent of the total operating time of the stationary RICE at which the CMS downtime occurred during that reporting period.
- (viii) An identification of each parameter and pollutant that was monitored at the stationary RICE.
- (ix) A brief description of the stationary RICE.
- (x) A brief description of the CMS.
- (xi) The date of the latest CMS certification or audit.
- (xii) A description of any changes in CMS, processes, or controls since the last reporting period.

## 5. Requirements for Non-Emergency Spark Ignition Engines

### a. Operation Requirements for 2 SLB Engines, 4 SRB (<500 HP) and 4SLB (<500 HP) Engines

- (1) The Permittee shall operate and maintain the engine and after-treatment control device (if any) according to the manufacturer's emission-related written instructions or develop a maintenance plan which shall provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.

[40 CFR 63.6625(e)(5), (7) and (8)]

### (2) Operation and Maintenance Requirements

- (a) The Permittee shall comply with the operation and maintenance requirements in Conditions VI.D.5.a(2)(b), (c) and (d) at the following frequencies:

[40 CFR 63.6603(a) and 40 CFR 63, Subpart ZZZZ, Table 2d]

- (i) For 2 SLB engines: Every 4,320 hours operation or annually, whichever comes first; and
  - (ii) For 4SLB and 4SRB engines (<500 HP): Every 1,440 hours operation or annually, whichever comes first.
- (b) The Permittee shall change the oil and filter. If the Permittee prefers to extend the oil change requirement, an oil analysis program described below shall be completed. The oil analysis shall be performed at the same frequency specified for changing the oil.

- (i) The Permittee shall at a minimum analyze the following three parameters: Total Acid Number, viscosity and water content. The condemning limits for these parameters are as follows:
  - (a) Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new,
  - (b) Viscosity has changed more than 20 percent from the viscosity of oil when new;
  - (c) Water Content is greater than 0.5 percent by volume.
  - (d) If all of the above limits are not exceeded, the Permittee is not required to change the oil. If any of the above limits are exceeded, the Permittee shall change the oil within 2 business days of receiving the results of the analysis or before commencing operation, whichever is later. Records must be kept of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program shall be part of the maintenance plan for the operation of the engine.

(c) The Permittee shall inspect spark plugs and replace as necessary.

[40 CFR Table 2d of Subpart ZZZZ]

(d) The Permittee shall inspect all hoses and belts and replace as necessary.

[40 CFR Table 2d of Subpart ZZZZ]

(3) Continuous Compliance Requirements

The Permittee shall demonstrate continuous compliance by operating and maintaining the engine according to the manufacturer's emission-related operation and maintenance instructions; or by developing and follow its own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions

[40 CFR 63.6640(a), Table 6 to 40 CFR 63 Subpart ZZZZ]

b. Operating Requirements for 4SLB and 4SRB Engines >500HP

(1) Air Pollution Control Requirements

- (a) For 4SLB engines, the Permittee shall install and operate an oxidation catalyst to reduce HAP emissions.

[Table 2d to 40 CFR 63 Subpart ZZZZ, A.A.C. R18-2-331.A.3.d and e]  
[Material Permit Conditions indicated by italics and underline]

- (b) For 4SRB engines, the Permittee install and operate non selective catalytic reduction (NSCR) to reduce HAP emissions.

[Table 2d to 40 CFR 63 Subpart ZZZZ, A.A.C. R18-2-331.A.3.d and e]  
[Material Permit Conditions indicated by italics and underline]

(2) Monitoring Requirements

- (a) The Permittee shall install and operate a continuous parametric monitoring system (CPMS) to continuously monitor catalyst inlet temperature according to the requirements in 40 CFR 63.6625(b), or

[40 CFR 63.6625(b), A.A.C. R18-2-331.A.3.c]  
[Material Permit Conditions indicated by italics and underline]

- (b) The Permittee shall install equipment to automatically shut down the engine if the catalyst inlet temperature exceeds 1350 °F for 4SLB engine and/or 1250 °F for 4SRB engine.

[40 CFR 63.6640 and Table 5 to 40 CFR 63 Subpart ZZZZ A.A.C. R18-2-331.A.3.c]  
[Material Permit Conditions indicated by italics and underline]

(3) Initial Performance Test/Compliance Demonstration

- (a) Within 180 days of issuance of the permit, the Permittee shall conduct initial performance test in accordance with the method in Table 4 of 40 CFR 63 Subpart ZZZZ to demonstrate compliance the following emission limits:

[40 CFR 63.6630(a) and Table 5 to 40 CFR 63 Subpart ZZZZ]

- (i) For 4SRB engine, the average reduction of emissions of CO is 93 percent or more, or the average CO concentration is less than or equal to 47 ppmvd at 15 percent O<sub>2</sub>;
- (ii) For 4SLB engine, the average reduction of emissions of CO is 75 percent or more, the average CO concentration is less than or equal to 270 ppmvd at 15 percent O<sub>2</sub>, or the average reduction of emissions of THC is 30 percent or more;

- (b) Compliance Demonstration procedure

[40 CFR 63.6630(e)]

- (i) The compliance demonstration shall consist of at least three test runs.
- (ii) Each test run shall be of at least 15 minute duration, except that each test conducted using

the method in Appendix A to 40 CFR 63 shall consist of at least one measurement cycle and include at least 2 minutes of test data phase measurement.

- (iii) If the Permittee is demonstrating compliance with the CO concentration or CO percent reduction requirement, the Permittee shall measure CO emissions using one of the CO measurement methods specified in Table 4 of 40 CFR Part 63 Subpart ZZZZ, or using appendix A to 40 CFR Part 63.
  - (iv) If the Permittee is demonstrating compliance with the THC percent reduction requirement, the Permittee shall measure THC emissions using Method 25A, reported as propane, of 40 CFR Part 60, appendix A.
  - (v) The Permittee shall measure O<sub>2</sub> using one of the O<sub>2</sub> measurement methods specified in Table 4 of 40 CFR Part 63 Subpart ZZZZ. Measurements to determine O<sub>2</sub> concentration must be made at the same time as the measurements for CO or THC concentration.
  - (vi) If the Permittee is demonstrating compliance with the CO or THC percent reduction requirement, the Permittee shall measure CO or THC emissions and O<sub>2</sub> emissions simultaneously at the inlet and outlet of the control device.
- (4) Subsequent Performance Test Requirements
- (a) The Permittee shall conduct annual performance test in accordance with the method in Table 4 of 40 CFR 63 Subpart ZZZZ to demonstrate compliance the emission limits in Conditions VI.D.5.b(3)(a)(i) and (ii). The annual compliance demonstration shall consist of at least one test run in accordance with the procedure in Condition VI.D.5.b(3)(b) above.  
[40 CFR 63.6640(a) and (c), Table 6 to 40 CFR 63 Subpart ZZZZ]
  - (b) If the results of the annual compliance demonstration show that the emissions exceed the levels specified in Conditions VI.D.5.b(3)(a)(i) and (ii), the engine shall be shut down as soon as safely possible, and appropriate corrective action shall be taken (e.g., repairs, catalyst cleaning, catalyst replacement). The stationary RICE shall be retested within 7 days of being restarted and the emissions must meet the levels specified in Conditions VI.D.5.b(3)(a)(i) and (ii). If the retest shows that the emissions continue to exceed the specified levels, the stationary RICE must again be shut down as soon as

safely possible, and the stationary RICE may not operate, except for purposes of startup and testing, until the Permittee demonstrates through testing that the emissions do not exceed the levels specified in Conditions VI.D.5.b(3)(a)(i) and (ii).

[40 CFR 63.6640(c)(7)]

(5) Continuous Compliance Requirements

- (a) For 4SLB engine, the Permittee shall demonstrate continuous compliance by collecting the catalyst inlet temperature data according to Condition VI.D.5.b(2)(a), reducing these data to 4-hour rolling averages; and maintaining the 4-hour rolling averages within the limitation of greater than 450 °F and less than or equal to 1350 °F for the catalyst inlet temperature; or immediately shutting down the engine if the catalyst inlet temperature exceeds 1350 °F.

Table 6 to 40 CFR 63 Subpart ZZZZ

- (b) For 4SRB engine, the Permittee shall demonstrate continuous compliance by collecting the catalyst inlet temperature data according to Condition VI.D.5.b(2)(a), reducing these data to 4-hour rolling averages; and maintaining the 4-hour rolling averages within the limitation of greater than or equal to 750 °F and less than or equal to 1250 °F for the catalyst inlet temperature; or Immediately shutting down the engine if the catalyst inlet temperature exceeds 1250 °F.

Table 6 to 40 CFR 63 Subpart ZZZZ

c. Notification Requirements

- (1) The Permittee shall submit all applicable notifications in 40 CFR 63.7(b) and (c), 63.8(e), (f)(4) and (f)(6), 63.9(b) through (e), and (g) and (h).

[40 CFR 6645(a)(2) and (a)(5)]

- (2) The Permittee shall submit a Notification of Intent to conduct a performance test at least 60 days before the performance test is scheduled to begin as required in 40 CFR 63.7(b)(1).

[40 CFR 63.6645(g)]

- (3) For 4 SRB or 4 SLB engines greater than 500 HP and required to conduct a performance test or initial compliance demonstration, the Permittee shall submit a Notification of Compliance Status according to 40 CFR 63.9(h)(2)(ii).

[40 CFR 63.6645(h)]

d. Recordkeeping Requirements

- (1) The Permittee shall keep records described below:

[40 CFR 63.6655(a)]

- (a) A copy of each notification and report that the Permittee submitted to comply with 40 CFR 63 Subpart ZZZZ,

including all documentation supporting any Initial Notification or Notification of Compliance Status that you submitted, according to the requirement in 40 CFR 63.10(b)(2)(xiv).

- (b) Records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment.
  - (c) Records of performance tests and performance evaluations as required in 40 CFR 63.10(b)(2)(viii).
  - (d) Records of all required maintenance performed on the air pollution control and monitoring equipment.
  - (e) Records of actions taken during periods of malfunction to minimize emissions in accordance with Condition VI.D.2.a including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.
- (2) For each CPMS, the Permittee shall keep the following records:  
[40 CFR 63.6655(b)]
- (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.
- (3) The Permittee shall keep the records to show continuous compliance with each emission or operating limitation for the requirements in Condition VI.D.5.b(5).  
[40 CFR 63.6655(d)]
- (4) For 2 SLB engines, 4 SRB (<500 HP) engines, and 4SLB (<500 HP) engines subject to management practices in Condition, the Permittee shall keep records of the maintenance conducted on the engines in order to demonstrate that the Permittee operated and maintained the engine and after-treatment control device (if any) according to the Permittee's own maintenance plan.  
[40 CFR 63.6655(e)]

e. Reporting Requirements

- (1) The Permittee shall submit semi-annual compliance in accordance with Section VII of Attachment A.  
[40 CFR 63.6650(a) and (b)]
- (2) For 4SRB and 4SLB engines (> 500 HP), the compliance report shall contain the result of annual compliance demonstration, if

conducted during the reporting period.

[40 CFR 63.6650(a), Table 7 to 40 CFR 63 Subpart ZZZZ]

- (3) The Compliance report shall contain the following information [40 CFR 63.6650(c)]
- (a) Company name and address;
  - (b) Statement by a responsible official, with that official's name, title, and signature, certifying the accuracy of the content of the report;
  - (c) Date of report and beginning and ending dates of the reporting period;
  - (d) If the Permittee 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 the Permittee during a malfunction of an affected source to minimize emissions in accordance with §63.6605(b), including actions taken to correct a malfunction;
  - (e) If there are no deviations from any applicable emission or operating limitations, a statement that there were no deviations from the emission or operating limitations during the reporting period; and
  - (f) If there were no periods during which the CPMS, was out-of-control, as specified in §63.8(c)(7), a statement that there were no periods during which the CMS was out-of-control during the reporting period.
- (4) For each deviation from an emission or operating limitation that occurs for an engine where the Permittee is not using a CMS to comply with the operating limitations, the Compliance report shall contain the information in Conditions VI.D.5.e(3)(a) through (d) above and the information below: [40 CFR 63.6650(d)]
- (a) The total operating time of the stationary RICE at which the deviation occurred during the reporting period;
  - (b) Information on the number, duration, and cause of deviations (including unknown cause, if applicable), as applicable, and the corrective action taken.
- (5) For each deviation from an emission or operating limitation occurring for an engine where the Permittee is using a CMS to comply with the operating limitations, the Permittee shall include information in Conditions VI.D.5.e(3)(a) through (d) above and the information below:.

- (a) The date and time that each malfunction started and stopped;
- (b) The date, time, and duration that each CMS was inoperative, except for zero (low-level) and high-level checks;
- (c) The date, time, and duration that each CMS was out-of-control, including the information in 40 CFR 63.8(c)(8);
- (d) The date and time that each deviation started and stopped, and whether each deviation occurred during a period of malfunction or during another period;
- (e) A summary of the total duration of the deviation during the reporting period, and the total duration as a percent of the total source operating time during that reporting period;
- (f) A breakdown of the total duration of the deviations during the reporting period into those that are due to control equipment problems, process problems, other known causes, and other unknown causes;
- (g) A summary of the total duration of CMS downtime during the reporting period, and the total duration of CMS downtime as a percent of the total operating time of the stationary RICE at which the CMS downtime occurred during that reporting period;
- (h) An identification of each parameter and pollutant that was monitored at the stationary RICE;
- (i) A brief description of the stationary RICE;
- (j) A brief description of the CMS;
- (k) The date of the latest CMS certification or audit; and
- (l) A description of any changes in CMS, processes, or controls since the last reporting period.

6. Permit Shield

Compliance with the conditions of this Part shall be deemed compliance with 40 CFR Part 63.6590(a)(1), 63.6590(c)(1), 63.6603(a), 63.6603(d), 63.6603(e), 63.6604(a), 63.6605(b), 63.6612(a), 63.6615, 63.6625(a), 63.6625(b), 63.6625(e), 63.6625(f), 63.6625(g), 63.6625(h), 63.6625(i), 63.6625(j), 63.6630(a), 63.6630(e), 63.6640(a), 63.6640(c), 63.6640(f), 63.6645(a), 63.6645(g), 63.6645(h), 63.6650(a) through (e), 63.6650(h), 63.6655(a), 63.6655(b), 63.6655(d), 63.6655(e), and 63.6655(f)

[A.A.C. R18-2-325]

## VII. INTERNAL COMBUSTION ENGINE(S) SUBJECT TO NSPS SUBPART III

### A. Applicability

1. This Section applies to compression ignition internal combustion engines (CI ICE) marked as Subject to NSPS Subpart III on the associated ATO.
2. Compression ignition (CI) internal combustion engines (ICE) that commenced construction after July 11, 2005, where the stationary CI ICE are:
  - [40 CFR 60.4200(a)(2)]
  - a. Manufactured after April 1, 2006, and are not fire pump engines, or
    - [40 CFR 60.4200(a)(2)(i)]
  - b. Manufactured as a certified National Fire Protection Association (NFPA) fire pump engine after July 1, 2006.
    - [40 CFR 60.4200(a)(2)(ii)]
3. Any stationary CI ICE that are modified or reconstructed after July 11, 2005.
  - [40 CFR 60.4200(a)(3)]
4. Stationary CI ICE may be eligible for exemption from the requirements of this subpart as described in 40 CFR part 1068, subpart C (or the exemptions described in 40 CFR part 89, subpart J and 40 CFR part 94, subpart J, for engines that would need to be certified to standards in those parts), except that owners and operators, as well as manufacturers, may be eligible to request an exemption for national security.
  - [40 CFR 4200(d)]

### B. General Requirements

1. Operating Requirements
  - a. The Permittee shall operate and maintain the CI-ICE to comply with the emission standards as required in Condition VII.C.1. a through d over the entire life of the engine.
    - [40 CFR 60.4206]
  - b. The Permittee shall operate and maintain the CI-ICE and any control device according to the manufacturer's emission-related written instructions, or demonstrate compliance in accordance with Condition VII.C.1.e.
    - [40 CFR 60.4211(a)(1), and -4211(g)]
  - c. The Permittee shall change only those emission-related settings that are permitted by the manufacturer, or demonstrate compliance in accordance with Condition VII.C.1.e.
    - [40 CFR 60.4211(a)(2), and -4211(g)]
  - d. The Permittee shall meet the requirements of 40 CFR parts 89, 94 and/or 1068, as they apply.
    - [40 CFR 60.4211(a)(3)]
2. Fuel Requirements
  - a. An engine with a displacement < 30 l/cyl must use diesel fuel that meets the requirements of 40 CFR 80.510(b) for nonroad diesel fuel.

- (1) Sulfur content; 15 ppm maximum; and
  - (2) A minimum cetane index of 40 or a maximum aromatic content of 35 volume percent.
- b. Engine with a national security exemption under 40 CFR 60.4200(d) are exempt from the fuel requirements of this section. [40 CFR 60.4207(e)]
3. If an engine is equipped with a diesel particulate filter to comply with the emission standards in Condition VII.C.1. a through d, the Permittee shall install, maintain, and operate the particulate filter in accordance with good air pollution control practices for minimizing emissions. [A.A.C. R18-2-306.01 and -331.A.3.d and e]  
 [Material permit conditions are indicated by underline and italics]

**C. Non-Emergency Generators**

**1. Emission Limitations and Standards**

The Permittee operating a new, modified or reconstructed non-emergency CI-ICE subject to this section shall comply with the emission standards identified as follows for the corresponding model year, horsepower (hp) and liters per cylinder (l/cyl) displacement:

[40 CFR 60.4204(e)]

- a. Pre-2007 model year with displacement of < 10 l/cyl;

The Permittee must comply with the emission standards in Table 2 of this section.

[40 CFR 60.4204(a) and Table 1 of 40 CFR Subpart IIII]

Table 2

Maximum Engine Power	g/KW-hr (g/HP-hr)				
	NMHC + NOX	HC	NOX	CO	PM
KW<8 (HP<11)	10.5 (7.8)			8.0 (6.0)	1.0 (0.75)
8≤KW<19 (11≤HP<25)	9.5 (7.1)			6.6 (4.9)	0.80 (0.60)
19≤KW<37 (25≤HP<50)	9.5 (7.1)			5.5 (4.1)	0.80 (0.60)
37≤KW<56 (50≤HP<75)			9.2 (6.9)		
56≤KW<75 (75≤HP<100)			9.2 (6.9)		
75≤KW<130 (100≤HP<175)			9.2 (6.9)		
130≤KW<225 (175≤HP<300)		1.3 (1.0)	9.2 (6.9)	11.4 (8.5)	0.54 (0.40)
225≤KW<450		1.3	9.2	11.4	0.54 (0.40)

(300≤HP<600)		(1.0)	(6.9)	(8.5)	
450≤KW≤560 (600≤HP≤750)		1.3 (1.0)	9.2 (6.9)	11.4 (8.5)	0.54 (0.40)
KW>560 (HP>750)		1.3 (1.0)	9.2 (6.9)	11.4 (8.5)	0.54 (0.40)

- b. Pre-2007 model year with displacement  $10 \leq$  and  $< 30$  l/cyl;

The Permittee must comply with the emission standards in 40 CFR 94.8(a)(1).

[40 CFR 60.4204(a)]

- c. 2007 and later model years with displacement  $< 30$  l/cyl;

[40 CFR 60.4204(b)]

- (1) Displacement  $< 10$  l/cyl and maximum engine power  $\leq 3,000$  hp;

Must meet the emission standards for new nonroad compression ignition engines in 40 CFR 89.112, 40 CFR 89.113, 40 CFR 1039.101, 40 CFR 1039.102, 40 CFR 1039.104, 40 CFR 1039.105, 40 CFR 1039.107, and 40 CFR 1039.115, as applicable, for all pollutants, for the same model year and maximum engine power.

[40 CFR 60.4201(a)]

- (2) Displacement  $< 10$  l/cyl and maximum engine power  $> 3,000$  hp;

- (a) Model year 2007 through 2010;

The Permittee must comply with the emission standards in Table 1 of this section.

[40 CFR 60.4201(b)]

- (b) Model year 2011 and later;

The Permittee must comply with the emission standards for new nonroad CI engines in 40 CFR 1039.101, 40 CFR 1039.102, 40 CFR 1039.104, 40 CFR 1039.105, 40 CFR 1039.107, and 40 CFR 1039.115, as applicable, for all pollutants, for the same maximum engine power.

[40 CFR 60.4201(c)]

- (3) Displacement  $\geq 10$  l/cyl;

- (a) Model years 2007 through 2012;

The Permittee must comply with emission standards for new marine CI engines in 40 CFR 94.8 as applicable for all pollutants.

[40 CFR 60.4201(d)(1)]

- (b) Model year 2013;

(i) Displacement < 15 l/cyl;

(a) and maximum engine power < 4958 hp;

The Permittee must comply with the emission standards for new marine CI engines in 40 CFR 1042.101, 40 CFR 1042.107, 40 CFR 1042.110, 40 CFR 1042.115, 40 CFR 1042.120, and 40 CFR 1042.145, as applicable, for all pollutants.

[40 CFR 4201(e)(1)]

(b) and maximum engine power  $\geq$  4958 hp;

The Permittee must comply with emission standards for new marine CI engines in 40 CFR 94.8 as applicable for all pollutants.

[40 CFR 60.4201(d)(2)]

(ii) Displacement  $\geq$  15 l/cyl.

The Permittee must comply with emission standards for new marine CI engines in 40 CFR 94.8 as applicable for all pollutants.

[40 CFR 60.4201(d)(3)]

(c) Model year 2014 and later;

The Permittee must comply with the emission standards for new marine CI engines in 40 CFR 1042.101, 40 CFR 1042.107, 40 CFR 1042.110, 40 CFR 1042.115, 40 CFR 1042.120, and 40 CFR 1042.145, as applicable, for all pollutants.

[40 CFR 4201(e)(2)]

d. The Permittee operating a non-emergency CI engine that conducts performance tests in-use must meet the not-to-exceed (NTE) standards as indicated in 40 CFR 60.4212.

[40 CFR 60.4204(d)]

e. A Permittee that does not install, configure, operate, and maintain the engine and control device according to the manufacturer's emission-related written instructions, or changes emission-related settings in a way that is not permitted by the manufacturer, must demonstrate compliance as follows:

[40 CFR 60.4211(g)]

(1) A stationary CI internal combustion engine with maximum engine power less than 100 HP, the Permittee shall keep a maintenance plan and records of conducted maintenance to demonstrate compliance and shall, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, if the Permittee does not install and configure the

engine and control device according to the manufacturer's emission-related written instructions, or changes the emission-related settings in a way that is not permitted by the manufacturer, the Permittee shall conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of such action.

[40 CFR 60.4211(g)(1)]

- (2) A stationary CI internal combustion engine greater than or equal to 100 HP and less than or equal to 500 HP, the Permittee shall keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, the Permittee shall conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of startup, or within 1 year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within 1 year after the Permittee changes emission-related settings in a way that is not permitted by the manufacturer.

[40 CFR 60.4211(g)(2)]

- (3) The Permittee of a stationary CI internal combustion engine greater than 500 HP, shall keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, the Permittee shall conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of startup, or within 1 year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within 1 year after the Permittee changes emission-related settings in a way that is not permitted by the manufacturer. The Permittee shall conduct subsequent performance testing every 8,760 hours of engine operation or 3 years, whichever comes first, thereafter to demonstrate compliance with the applicable emission standards.

[40 CFR 60.4211(g)(3)]

## 2. Compliance Requirements

A Permittee operating an engine subject to any emission standard specified in Condition VII.C.1 must demonstrate compliance according to one of the methods specified in this Section as applicable.

- a. Pre-2007 model year with displacement < 30 l/cyl;

- (1) Purchasing an engine certified according to 40 CFR part 89 or 40 CFR part 94, as applicable, for the same model year and maximum engine power. The engine shall be installed and configured according to the manufacturer's specifications; or

[40 CFR 60.4211(b)(1)]

- (2) Keeping records of performance test results for each pollutant for a test conducted on a similar engine. The test shall have been conducted using the same methods specified in Condition VII.C.1 and these methods must have been followed correctly; or  
[40 CFR 60.4211(b)(2)]
  - (3) Keeping records of engine manufacturer data indicating compliance with the standards; or  
[40 CFR 60.4211(b)(3)].
  - (4) Keeping records of control device vendor data indicating compliance with the standards; or  
[40 CFR 60.4211(B)(4)]
  - (5) Conducting an initial performance test to demonstrate compliance with the emission standards according to the requirements specified in 40 CFR 60.4212, as applicable.  
[40 CFR 60.4211(b)(5)]
- b. 2007 model year and later with displacement < 30 l/cyl;  
[40 CFR 60.4211(c)]
- (1) Purchasing an engine certified to the applicable emission standards specified in Condition VII.C.1 for the same model year and maximum engine power; and
  - (2) The engine must be installed and configured according to the manufacturer's emission -related specifications.
- c. For any engine that the Permittee conducts an in-use performance test;
- (1) Conducting an initial performance test to demonstrate initial compliance with the emission standards as specified in 40 CFR 60.4213.  
[40 CFR 60.4211(d)(1)]
  - (2) Establishing operating parameters to be monitored continuously to ensure the engine continues to meet the emission standards. The Permittee must petition the Director for approval of operating parameters to be monitored continuously. The petition must include the following information;  
[40 CFR 60.4211(d)(2)]
    - (a) Identification of the specific parameters you propose to monitor continuously; and  
[40 CFR 60.4211(d)(2)(i)]
    - (b) A discussion of the relationship between these parameters and NO<sub>x</sub> and PM emissions, identifying how the emissions of these pollutants change with changes in these parameters, and how limitations on these parameters will serve to limit NO<sub>x</sub> and PM emissions; and  
[40 CFR 60.4211(d)(2)(ii)]
    - (c) A discussion of how you will establish the upper and/or

lower values for these parameters which will establish the limits on these parameters in the operating limitations; and

[40 CFR 60.4211(d)(2)(iii)]

- (d) A discussion identifying the methods and the instruments you will use to monitor these parameters, as well as the relative accuracy and precision of these methods and instruments; and

[40 CFR 60.4211(d)(2)(iv)]

- (e) A discussion identifying the frequency and methods for recalibrating the instruments you will use for monitoring these parameters.

[40 CFR 60.4211(d)(2)(v)]

- d. Modified or reconstructed engine subject to an applicable emission standard(s) specified in Condition VII.C.1.

- (1) Purchase an engine certified to the applicable emission standard(s).

[40 CFR 60.4211(e)(1)]

- (2) Conduct a performance test to demonstrate initial compliance with the applicable emission standard(s) according to the requirements specified in 40 CFR 60.4212. The test must be conducted within 60 days after the engine commences operation after the modification or reconstruction.

[40 CFR 60.4211(e)(2)]

### 3. Monitoring, Recordkeeping and Reporting Requirements

- a. If an engine is equipped with a diesel particulate filter to comply with the emission standards in Condition VII.C.1, *the Permittee shall install a backpressure monitor on the diesel particulate filter that notifies the Permittee when the high backpressure limit of the engine is approached.*

[40 CFR 60.4209(b) and A.A.C. R18-2-331.A.3.c]

[Material permit conditions are indicated by underline and italics]

- b. If an engine is equipped with a diesel particulate filter, the Permittee shall keep records of any corrective action taken after the backpressure monitor has notified the Permittee that the high backpressure limit of the engine is approached.

[40 CFR 60.4214(c)]

- c. A Permittee operating an engine that meets any of the following specifications, > 3,000 hp, or a displacement  $\geq 10$  l/cyl, or is a pre-2007 model year > 175 hp and not certified, must:

[40 CFR 60.4212(a)]

- (1) Submit an initial notification as required in 40 CFR 60.7(a)(1), including:

[40 CFR 60.4214(a)(1)]

- (a) Name and address of the Permittee; and

[40 CFR 60.4214(a)(1)(i)]

- (b) The address of the affected source; and  
[40 CFR 60.4214(a)(1)(ii)]
  - (c) Engine information including make, model, engine family, serial number, model year, maximum engine power, and engine displacement; and  
[40 CFR 60.4214(a)(1)(iii)]
  - (d) Emission control equipment; and  
[40 CFR 60.4214(a)(1)(iv)]
  - (e) Fuel used.  
[40 CFR 60.4214(a)(1)(v)]
- (2) Keep records of the following information:  
[40 CFR 60.4214(a)(2)]
- (a) All notifications submitted to comply with this subpart and all documentation supporting any notification; and  
[40 CFR 60.4214(a)(2)(i)]
  - (b) Maintenance conducted on the engine; and  
[40 CFR 60.4214(a)(2)(ii)]
  - (c) If the engine is certified, documentation from the manufacturer that the engine is certified to meet the applicable emission standards; or  
[40 CFR 60.4214(a)(2)(iii)]
  - (d) If the engine is not certified, documentation that the engine meets the emission standards.  
[40 CFR 60.4214(a)(2)(iv)]

## D. Emergency Engines

### 1. Operating Requirements

- a. *The Permittee shall install a non-resettable hour meter prior to startup of the engine.*  
[40 CFR 60.4209(a) and A.A.C. R18-2-331.A.3.c]  
[Material permit conditions are indicated by underline and italics]
- b. The Permittee shall operate the emergency stationary ICE according to Condition VII.D.1.b(1) through (3) in order for the engine to be considered an emergency stationary ICE, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described below, is prohibited.  
[40 CFR 60.4211(f)]
  - (1) There is no time limit on the use of emergency stationary ICE in emergency situations.  
[40 CFR 60.4211(f)(1)]
  - (2) The Permittee may operate the emergency stationary ICE for any combination of the purposes specified below for a maximum of 100 hours per calendar year. Any operation for non-emergency

situations as allowed by Condition VII.D.1.b(3) counts as part of the 100 hours per calendar year.

[40 CFR 60.4211(f)(2)]

- (a) Emergency stationary ICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The Permittee may petition the Director for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the Permittee maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year.

[40 CFR 60.4211(f)(2)(i)]

- (b) Emergency stationary ICE may be operated for emergency demand response for periods in which the Reliability Coordinator under the North American Electric Reliability Corporation (NERC) Reliability Standard EOP-002-3, Capacity and Energy Emergencies (incorporated by reference, see 40 CFR 60.17), or other authorized entity as determined by the Reliability Coordinator, has declared an Energy Emergency Alert Level 2 as defined in the NERC Reliability Standard EOP-002-3.

[40 CFR 60.4211(f)(2)(ii)]

- (c) Emergency stationary ICE may be operated for periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency.

[40 CFR 60.4211(f)(2)(iii)]

- (3) Emergency stationary ICE may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in Condition VII.D.1.b(2). Except as provided in Condition VII.D.1.b(3)(a), the 50 hours per calendar year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

[40 CFR 60.4211(f)(3)]

- (a) The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the following Conditions are met:

[40 CFR 60.4211(f)(3)(i)]

- (i) The engine is dispatched by the local balancing

authority or local transmission and distribution system operator;

[40 CFR 60.4211(f)(3)(i)(A)]

- (ii) The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region.

[40 CFR 60.4211(f)(3)(i)(B)]

- (iii) The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines.

[40 CFR 60.4211(f)(3)(i)(C)]

- (iv) The power is provided only to the facility itself or to support the local transmission and distribution system.

[40 CFR 60.4211(f)(3)(i)(E)]

- (v) The Permittee identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the engine owner or operator.

[40 CFR 60.4211(f)(3)(i)(D)]

- c. If the Permittee does not install, configure, operate, and maintain the engine and control device according to the manufacturer's emission-related written instructions, or the Permittee changes emission-related settings in a way that is not permitted by the manufacturer, the Permittee shall demonstrate compliance as follows:

[40 CFR 60.4211(g)]

- (1) If the stationary CI internal combustion engine with maximum engine power less than 100 HP, the Permittee shall keep a maintenance plan and records of conducted maintenance to demonstrate compliance and shall, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, if the Permittee does not install and configure the engine and control device according to the manufacturer's emission-related written instructions, or the Permittee changes the emission-related settings in a way that is not permitted by the manufacturer, the Permittee shall conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of such action.

[40 CFR 60.4211(g)(1)]

- (2) For a stationary CI internal combustion engine greater than or

equal to 100 HP and less than or equal to 500 HP, the Permittee shall keep a maintenance plan and records of conducted maintenance and shall, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, the Permittee shall conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of startup, or within 1 year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within 1 year after the Permittee changes emission-related settings in a way that is not permitted by the manufacturer.

[40 CFR 60.4211(g)(2)]

- (3) For a stationary CI internal combustion engine greater than 500 HP, the Permittee shall keep a maintenance plan and records of conducted maintenance and shall, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, the Permittee shall conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of startup, or within 1 year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within 1 year after the Permittee changes emission-related settings in a way that is not permitted by the manufacturer. The Permittee shall conduct subsequent performance testing every 8,760 hours of engine operation or 3 years, whichever comes first, thereafter to demonstrate compliance with the applicable emission standards.

[40 CFR 60.4211(g)(3)]

## 2. Emission Limitations and Standards

### a. Fire Pump Engines

The Permittee shall comply with the following emission limits in Table 3 for fire pump engines with a displacement of less than 30 liters per cylinder:

[40 CFR 60. 4205(c)]

Table 3

Maximum Engine Power (EP) (horsepower)	Model year	Emission Standard (g/HP-hr)		
		PM	NO <sub>x</sub>	CO
EP < 11	2010 and earlier	0.75	7.8	6.0
	2011 and later	0.30	5.6	N/A
11 ≤ EP < 25	2010 and earlier	0.60	7.1	4.9
	2011 and later	0.30	5.6	N/A
25 ≤ EP < 50	2010 and earlier	0.60	7.1	4.1
	2011 and later	0.22	5.6	N/A
50 ≤ EP < 75	2010 and earlier	0.60	7.8	3.7
	2011 and later	0.30	3.5	N/A

75 ≤ EP < 100	2010 and earlier	0.60	7.8	3.7
	2011 and later	0.30	3.5	N/A
100 ≤ EP < 175	2009 and earlier	0.60	7.8	3.7
	2010 and later	0.22	3.0	N/A
175 ≤ EP < 300	2008 and earlier	0.40	7.8	2.6
	2009 and later	0.15	3.0	N/A
300 ≤ EP < 600	2008 and earlier	0.40	7.8	2.6
	2009 and later	0.15	3.0	N/A
600 ≤ EP ≤ 750	2008 and earlier	0.40	7.8	2.6
	2009 and later	0.15	3.0	N/A
EP > 750	2007 and earlier	0.40	7.8	2.6
	2008 and later	0.15	4.8	N/A

- (1) For model years 2011 through 2013, fire pump engines that are greater than 50 horsepower, but less than 100 horsepower with a rated speed of greater than 2,650 revolutions per minute (rpm) may comply with the emission limitations for 2010 model year engines.

[Note 1 to Table 4 to 40 CFR Subpart IIII]

- (2) For model years 2010 through 2012, fire pump engines that are greater than 100 horsepower, but less than 175 horsepower with a rated speed of greater than 2,650 rpm may comply with the emission limitations for 2009 model year engines.

[Note 2 to Table 4 to 40 CFR Subpart IIII]

b. Emergency Engines

- (1) Pre-2007 model year emergency stationary internal combustion engines with:

[40 CFR 60.4205(a)]

- (a) A displacement of less than 10 liters per cylinder that are not fire pump engines shall comply with the following emission standards in Table 4 below:

TABLE 4

Maximum Engine Power (EP) (horsepower)	Emission Standard (g/HP-hr)				
	NMHC + NO <sub>x</sub>	HC	NO <sub>x</sub>	CO	PM
EP < 11	7.8			6.0	0.75
11 ≤ EP < 25	7.1			4.9	0.60
25 ≤ EP < 50	7.1			4.1	0.60
50 ≤ EP < 75			6.9		
75 ≤ EP < 100			6.9		
100 ≤ EP < 175			6.9		
175 ≤ EP < 300		1.0	6.9	8.5	0.40

$300 \leq EP < 600$		1.0	6.9	8.5	0.40
$600 \leq EP \leq 750$		1.0	6.9	8.5	0.40
$EP > 750$		1.0	6.9	8.5	0.40

[40 CFR 94.8(a)(1)(iii)]

- (2) 2007 model year and later emergency internal combustion engines with a displacement of less than 30 liters per cylinder that are not fire pump engines shall comply with the appropriate emission limitation as follows:

[40 CFR 60.4205(b)]

- (a) 2007 model year and later engines with a maximum engine power less than or equal to 3,000 horsepower and a displacement of less than 10 liters per cylinder shall meet the emission standards specified below:

[40 CFR 60.4202(a)]

- (i) For engines with a maximum engine power less than 50 horsepower:

[40 CFR 60.4202(a)(1)]

- (a) 2007 model year engines shall meet the emission standards for new nonroad compression ignition engines in 40 CFR 89.112 and 40 CFR 89.113, for all pollutants, for the same model year and maximum engine power, and

- (b) 2008 model year and later engines shall meet the emission standards for new nonroad compression ignition engines in 40 CFR 1039.104, 40 CFR 1039.105, 40 CFR 1039.107, 40 CFR 1039.115, and Table 2 to 40 CFR Part 60, Subpart III.

- (ii) For engines with a maximum engine power greater than or equal to 50 horsepower, the Permittee shall meet the emission standards for new nonroad compression ignition engines in 40 CFR 89.112 and 40 CFR 89.113, for all pollutants, for the same model year and maximum engine power.

[40 CFR 60.4202(a)(2)]

- (3) 2007 model year and later engines shall meet the emission standards for new marine compression ignition engines in 40 CFR 94.8, as applicable, for all pollutants, for the same displacement and maximum engine power.

[40 CFR 60.4202(e)]

- c. Emergency stationary internal combustion engines with a displacement of less than 30 liters per cylinder that conduct performance tests in-use shall meet the NTE standards as indicated in 40 CFR 60.4212.

[40 CFR 60.4205(e)]

d. Modified or Reconstructed Emergency CI ICE

Any modified or reconstructed emergency stationary internal combustion engine shall meet the emission standards applicable to the model year, maximum engine power, and displacement of the modified or reconstructed internal combustion engine that are specified in Condition VII.D.2.

[40 CFR 60.4205(f)]

3. Compliance Determinations

a. General Requirements

The Permittee shall operate and maintain the control device according to the manufacturer's written instructions or procedures that are developed by the Permittee and approved by the engine manufacturer. A copy of the instructions or procedures shall be kept on-site and made available to ADEQ upon request.

[40 CFR 60.4211(a) and A.A.C. R18-2-306.A.3]

b. Pre-2007 CI ICE

The Permittee of a pre-2007 model year stationary compression ignition internal combustion engine that is required to comply with the emission standards specified in Condition VII.D.2.b(1), shall demonstrate compliance according to one of the methods specified below:

- (1) Purchasing an engine certified according to 40 CFR Part 89 or 40 CFR Part 94, as applicable, for the same model year and maximum engine power. The engine shall be installed and configured according to the manufacturer's specifications.
- (2) Keeping records of performance test results for each pollutant for a test conducted on a similar engine. The test shall have been conducted using the methods specified in this 40 CFR 60.4212 or 4213, and the methods shall have been followed correctly.
- (3) Keeping records of engine manufacturer data indicating compliance with the standards.
- (4) Keeping records of control device vendor data indicating compliance with the standards.
- (5) Conducting an initial performance test to demonstrate compliance with the emission standards according to the requirements specified in 40 CFR 60.4212, as applicable.

[40 CFR 60.4211(b)]

c. 2007 and Later CI ICE

For 2007 model year and later internal combustion engines that are required to comply with the emission standards specified in Condition VII.D.2.b(2), the Permittee shall comply by purchasing an engine certified to the emission standards in Condition VII.D.2.b(2), as applicable, for the same model year and maximum engine power. The

engine shall be installed and configured according to the manufacturer's specifications.

[40 CFR 4211(c)]

d. 2007 and Later Fire Pump Engines

The Permittee of a 2007 model year and later stationary fire pump engines that is manufactured during or after the model year that applies to the fire pump engine power (EP) rating in the following table and that are required to comply with the emission standards specified in Condition VII.D.2.b(1) shall comply by purchasing an engine certified to the emission standards in Condition VII.D.2.b(1) as applicable, for the same model year and National Fire Protection Association (NFPA) nameplate engine power. The engine shall be installed and configured according to the manufacturer's specifications in Table 5 below.

TABLE 5

Engine Power (EP) (horsepower)	Model Year
EP < 100	2011
100 ≤ EP < 175	2010
175 ≤ EP < 750	2009
EP ≥ 750	2008

[40 CFR 4211(c)]

- e. The Permittee shall maintain a copy of engine certifications or other documentation demonstrating that each engine complies with the applicable standards in this Permit, and shall make the documentation available to ADEQ upon request.

[A.A.C. R18-2-306.A.4]

4. Monitoring, Recordkeeping, and Reporting Requirements

- a. If the Permittee elects to meet the emission limitations contained in Condition VII.D.2, the Permittee shall maintain records, including manufacturer specifications, demonstrating that the engine meets the horsepower and RPM specifications.

[A.A.C. R18-2-306.A.4]

- b. Pre-2007 model year engines that are greater than 175 HP and are not certified shall meet the following requirements:

[40 CFR 60.4214(a)]

- (1) Submit an initial notification as required in 40 CFR 60.7(a)(1). The notification shall include the following:

[40 CFR 60.4214(a)(1)]

- (a) Name and address of the Permittee;

[40 CFR 60.4214(a)(1)(i)]

- (b) The address of the affected source;

[40 CFR 60.4214(a)(1)(ii)]

- (c) Engine information including make, model, engine family, serial number, model year, maximum engine

- power, and engine displacement;  
[40 CFR 60.4214(a)(1)(iii)]
  - (d) Emission control equipment; and  
[40 CFR 60.4214(a)(1)(iv)]
  - (e) Fuel used.  
[40 CFR 60.4214(a)(1)(v)]
- (2) Keep records of the information the following:  
[40 CFR 60.4214(a)(2)]
- (a) All notifications submitted to comply with this subpart and all documentation supporting any notification.  
[40 CFR 60.4214(a)(2)(i)]
  - (b) Maintenance conducted on the engine.  
[40 CFR 60.4214(a)(2)(ii)]
  - (c) If the stationary CI internal combustion engine is certified, documentation from the manufacturer that the engine is certified to meet the emission standards.  
[40 CFR 60.4214(a)(2)(iii)]
  - (d) If the stationary CI internal combustion is not a certified engine, documentation that the engine meets the emission standards.  
[40 CFR 60.4214(a)(2)(iv)]
- c. If the stationary CI internal combustion engine is an emergency stationary internal combustion engine, the Permittee is not required to submit an initial notification. Starting with the model years in the table below, if the emergency engine does not meet the standards applicable to non-emergency engines in the applicable model year, the Permittee shall keep records of the operation of the engine in emergency and non-emergency service that are recorded through the non-resettable hour meter. The Permittee shall record the time of operation of the engine and the reason the engine was in operation during that time.  
[40 CFR 60.4214(b)]
- d. If the stationary CI internal combustion engine is equipped with a diesel particulate filter, the Permittee shall keep records of any corrective action taken after the backpressure monitor has notified the Permittee that the high backpressure limit of the engine is approached.  
[40 CFR 60.4214(c)]
- e. For an emergency stationary CI ICE with a maximum engine power more than 100 HP that operates or is contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in Condition VII.D.1.b(2)(b) and (c) or that operates for the purposes specified in Condition VII.D.1.b(3)(a), the Permittee shall submit an annual report according to the requirements below:  
[40 CFR 60.4214(d)]
- (1) The report shall contain the following information:  
[40 CFR 60.4214(d)(1)]

- (a) Company name and address where the engine is located.  
[40 CFR 60.4214(d)(1)(i)]
- (b) Date of the report and beginning and ending dates of the reporting period.  
[40 CFR 60.4214(d)(1)(ii)]
- (c) Engine site rating and model year.  
[40 CFR 60.4214(d)(1)(iii)]
- (d) Latitude and longitude of the engine in decimal degrees reported to the fifth decimal place.  
[40 CFR 60.4214(d)(1)(iv)]
- (e) Hours operated for the purposes specified in Condition VII.D.1.b(2)(b) and (c), including the date, start time, and end time for engine operation for the purposes specified in Condition VII.D.1.b(2)(b) and (c).  
[40 CFR 60.4214(d)(1)(v)]
- (f) Number of hours the engine is contractually obligated to be available for the purposes specified in Condition VII.D.1.b(2)(b) and (c).  
[40 CFR 60.4214(d)(1)(vi)]
- (g) Hours spent for operation for the purposes specified in Condition VII.D.1.b(2)(b), including the date, start time, and end time for engine operation for the purposes specified in Condition VII.D.1.b(2)(c). The report shall also identify the entity that dispatched the engine and the situation that necessitated the dispatch of the engine.  
[40 CFR 60.4214(d)(1)(vii)]

(2) The first annual report shall cover the calendar year 2015 and shall be submitted no later than March 31, 2016. Subsequent annual reports for each calendar year shall be submitted no later than March 31 of the following calendar year.  
[40 CFR 60.4214(d)(2)]

(3) The annual report shall be submitted electronically using the subpart specific reporting form in the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) ([www.epa.gov/cdx](http://www.epa.gov/cdx)). However, if the reporting form specific to 40 CFR Part 60, Subpart IIII is not available in CEDRI at the time that the report is due, the written report shall be submitted to the Administrator at the appropriate address listed in 40 CFR 60.4.  
[40 CFR 60.4214(d)(3)]

f. The Permittee shall maintain monthly records of engine operation. The records shall include the purpose of operation and the duration of time the engine was operated. The record shall identify whenever the operation of the engine was for emergency purposes.  
[A.A.C. R18-2-306.A.3.c]

## 5. Testing Requirements

The Permittee of an internal combustion engine with a displacement of less than 30 liters per cylinder that conducts performance tests pursuant to this Permit shall do so according to 40 CFR 60.4212.

[40 CFR 60.4212]

6. Permit Shield

Compliance with the conditions of this Section shall be deemed compliance with 40 CFR 60.4202(a), 60.4205(d), 60.4205(e), 60.4202(e), 60.4205(a), 60.4205(b), 60.4205(c), 60.4205(f), 60.4206, 60.4207(b), 60.4209(a), 60.4211(a), 60.4211(b), 60.4211(c), 60.4211(d), 60.4211(f), 60.4211(g), 60.4212, 60.4213, 60.4214(a), 60.4214(c), and 60.4214(d).

[A.A.C. R18-2-325]

**VIII. INTERNAL COMBUSTION SPARK IGNITION ENGINES SUBJECT TO 40 CFR 60 SUBPART JJJJ**

**A. Applicability**

This Section is applicable to each emergency SI ICE (emergency generator) identified in the associated ATO as subject to New Source Performance Standards (NSPS) Subpart JJJJ.

**B. Fuel Requirements**

1. Gasoline Fuel Sulfur Limits

If the Permittee burns gasoline in the stationary emergency SI ICE, then that gasoline shall meet the per gallon sulfur limit of 80 parts per million (ppm) as stated in 40 CFR 80.195.

[40 CFR 60.4235]

2. Permit Shield

Compliance with the condition of this Part shall be deemed compliance with 40 CFR 60.4235.

[A.A.C. R18-2-325]

**C. Operating Requirements**

1. The Permittee is prohibited from operating emergency SI ICE for any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year.

[40 CFR 60.4243(d), A.A.C. R18-2-331.A.3.c]

[Material Permit Conditions are indicated by underline and italics]

2. *The Permittee shall install a non-resettable hour meter prior to start-up of the engine.*

[A.A.C. R18-2-306.A.3, A.A.C. R18-2-331.A.3.c, and 40 CFR 60.4237]

[Material Permit Conditions are indicated by underline and italics]

**D. Emission Standards**

1. The Permittee of a stationary SI ICE must operate and maintain the stationary SI ICE that achieves the emission standards as required by this Section over the entire life of the engine.

[40 CFR 60.4234]

2. The Permittee shall operate and maintain the stationary SI ICE such that it complies with the emission standards listed in Table 6 in Condition VIII.D.12 except for engines applicable to Conditions VIII.D.3 through 6 below.  
[40 CFR 60.4234]
3. Stationary SI ICE with a maximum engine power less than or equal to 19 KW (25 HP) manufactured on or after July 1, 2008, must comply with the emission standards in 40 CFR 60.4231(a).  
[40 CFR 60.4233(a)]
4. Stationary SI ICE with a maximum engine power greater than 19 KW (25 HP) manufactured on or after January 1, 2009 that use gasoline must comply with the emission standards in 40 CFR 60.4231(b).  
[40 CFR 60.4233(b)]
5. Stationary SI ICE with a maximum engine power greater than 19 KW (25 HP) manufactured on or January 1, 2009 that are rich burn engines that use LPG must comply with the emission standards in 40 CFR 60.4231(c) for their stationary SI ICE.  
[40 CFR 60.4233(c)]
6. Non-emergency stationary SI ICE with a maximum engine power greater than 19 KW (25 HP) and less than 75 KW (100 HP) (except gasoline and rich burn engines that use LPG) must comply with the emission standards for field testing in 40 CFR 1048.101(c).  
[40 CFR 60.4233(d)]
7. Emergency stationary SI ICE with a maximum engine power greater than 19 KW (25 HP) and less than 75 KW (100 HP) (except gasoline and rich burn engines that use LPG) must comply with the emission standards listed in Table 6 in Condition VIII.D.12.  
[40 CFR 60.4233(d)]
8. Stationary SI ICE with a maximum engine power greater than 19 KW (25 HP) and less than 75 KW (100 HP) manufactured prior to January 1, 2011, that were certified to the standards listed in Table 6 in Condition VIII.D.12 applicable to engines with a maximum engine power greater than or equal to 100 HP and less than 500 HP, may meet those standards.  
[40 CFR 60.4233(d)]
9. Stationary SI ICE with a maximum engine power greater than or equal to 75 KW (100 HP) (except gasoline and rich burn engines that use LPG) must comply with the emission standards listed in table 1 in Condition VIII.D.12. For stationary SI ICE with a maximum engine power greater than or equal to 100 HP (except gasoline and rich burn engines that use LPG) manufactured prior to January 1, 2011 that were certified to the certification emission standards in 40 CFR part 1048 applicable to engines that are not severe duty engines, if such stationary SI ICE was certified to a carbon monoxide (CO) standard above the emission standards listed in table 1 in Condition VIII.D.12, then the Permittee shall meet the CO certification (not field testing) standard for which the engine was certified.  
[40 CFR 60.4233(e)]
10. Modified or reconstructed stationary SI ICE must meet the requirements as specified in Conditions VIII.D.10.a through d of this section.  
[40 CFR 60.4233(f)]

- a. Stationary SI ICE with a maximum engine power less than or equal to 19 KW (25 HP), that are modified or reconstructed after June 12, 2006, must comply with emission standards in 40 CFR 60.4231(a) for their stationary SI ICE. Engines with a date of manufacture prior to July 1, 2008 must comply with the emission standards specified in 40 CFR 60.4231(a) applicable to engines manufactured on July 1, 2008.
- b. Stationary SI ICE with a maximum engine power greater than 19 KW (25 HP) that are gasoline engines and are modified or reconstructed after June 12, 2006, must comply with the emission standards in 40 CFR 60.4231(b). Engines with a date of manufacture prior to July 1, 2008 (or January 1, 2009 for emergency engines) must comply with the emission standards specified in 40 CFR 60.4231(b) applicable to engines manufactured on July 1, 2008 (or January 1, 2009 for emergency engines).
- c. Stationary SI ICE with a maximum engine power greater than 19 KW (25 HP) that are rich burn engines that use LPG, that are modified or reconstructed after June 12, 2006, must comply with the same emission standards as those specified in 40 CFR 60.4231(c). Engines with a date of manufacture prior to July 1, 2008 (or January 1, 2009 for emergency engines) must comply with the emission standards specified in 40 CFR 60.4231(c) applicable to engines manufactured on July 1, 2008 (or January 1, 2009 for emergency engines).
- d. Stationary SI natural gas and lean burn LPG engines with a maximum engine power greater than 19 KW (25 HP), that are modified or reconstructed after June 12, 2006, must comply with the same emission standards as those specified in Conditions VIII.D.6 through 8 or VIII.D.9 as applicable, except that the Permittees of non-emergency engines and emergency engines greater than or equal to 130 HP must meet a nitrogen oxides (NO<sub>x</sub>) emission standard of 3.0 grams per HP-hour (g/HP-hr), a CO emission standard of 4.0 g/HP-hr (5.0 g/HP-hr for non-emergency engines less than 100 HP), and a volatile organic compounds (VOC) emission standard of 1.0 g/HP-hr, or a NO<sub>x</sub> emission standard of 250 ppmvd at 15 percent oxygen (O<sub>2</sub>), a CO emission standard 540 ppmvd at 15 percent O<sub>2</sub> (675 ppmvd at 15 percent O<sub>2</sub> for non-emergency engines less than 100 HP), and a VOC emission standard of 86 ppmvd at 15 percent O<sub>2</sub>, where the date of manufacture of the engine is:
  - (1) Prior to July 1, 2007, for non-emergency engines with a maximum engine power greater than or equal to 500 HP (except lean burn natural gas engines and LPG engines with a maximum engine power greater than or equal to 500 HP and less than 1,350 HP);
  - (2) Prior to July 1, 2008, for non-emergency engines with a maximum engine power less than 500 HP;
  - (3) Prior to January 1, 2009, for emergency engines;
  - (4) Prior to January 1, 2008, for non-emergency lean burn natural gas engines and LPG engines with a maximum engine power greater than or equal to 500 HP and less than 1,350 HP.

11. Stationary SI ICE that are required to meet standards that reference 40 CFR 1048.101 must, if testing their engines in use, meet the standards applicable to field testing, except as indicated in Condition VIII.D.9.

[40 CFR 60.4233(h)]

12. Emission Limits Table

Table 6

(Table 1 to 40 CFR 60 Subpart JJJJ: NO<sub>x</sub>, CO, and VOC Emission Standards for Stationary Non-Emergency SI Engines ≥100 HP (Except Gasoline and Rich Burn LPG), and Stationary Emergency Engines >25 HP)

Engine type and fuel	Maximum engine power	Manufacture date	Emission standards <sup>a</sup>					
			g/HP-hr			ppmvd at 15% O <sub>2</sub>		
			NO <sub>x</sub>	CO	VOC <sup>d</sup>	NO <sub>x</sub>	CO	VOC <sup>d</sup>
Non-Emergency SI Natural Gas <sup>b</sup> and Non-Emergency SI Lean Burn LPG <sup>b</sup>	100≤HP<500	7/1/2008	2.0	4.0	1.0	160	540	86
		1/1/2011	1.0	2.0	0.7	82	270	60
Non-Emergency SI Lean Burn Natural Gas and LPG	500≤HP<1,350	1/1/2008	2.0	4.0	1.0	160	540	86
		7/1/2010	1.0	2.0	0.7	82	270	60
Non-Emergency SI Natural Gas and Non-Emergency SI Lean Burn LPG (except lean burn 500≤HP<1,350)	HP≥500	7/1/2007	2.0	4.0	1.0	160	540	86
		7/1/2010	1.0	2.0	0.7	82	270	60
Emergency	25<HP<130	1/1/2009	<sup>c</sup> 10	387	N/A	N/A	N/A	N/A
	HP≥130		2.0	4.0	1.0	160	540	86

13. Permit Shield

Compliance with the conditions of this Section shall be deemed compliance with 40 CFR 60.4233(a), 40 CFR 60.4233(b), 40 CFR 60.4233(c), 40 CFR 60.4233(d), 40 CFR 60.4233(e), 40 CFR 60.4233(f), and 40 CFR 60.4234.

[A.A.C. R18-2-325]

**E. Compliance Requirements**

1. The Permittee of a stationary SI internal combustion engine that is manufactured after July 1, 2008, and must comply with the emission standards specified in Conditions VIII.D.3 through 5, shall comply by purchasing an engine certified to the emission standards in 40 CFR 60.4231(a) through (c), as applicable, for the same engine class and maximum engine power. In addition, the Permittee shall meet one of the requirements specified in Conditions VIII.E.1.a and VIII.E.1.b of this section.

[40 CFR 60.4243(a)]

- a. If the Permittee operates and maintains the certified stationary SI internal combustion engine and control device according to the manufacturer's emission-related written instructions, the Permittee shall keep records of conducted maintenance to demonstrate compliance, but no performance

testing is required. The Permittee shall also meet the requirements as specified in 40 CFR part 1068, subparts A through D, as applicable. If the Permittee adjusts engine settings according to and consistent with the manufacturer's instructions, the stationary SI internal combustion engine will not be considered out of compliance.

b. If the Permittee does not operate and maintain the certified stationary SI internal combustion engine and control device according to the manufacturer's emission-related written instructions, the engine will be considered a non-certified engine, and the Permittee shall demonstrate compliance according to Conditions VIII.E.1.b(1) through (3) of this section, as appropriate.

(1) The Permittee of a stationary SI internal combustion engine less than 100 HP shall keep a maintenance plan and records of conducted maintenance to demonstrate compliance and shall, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions, but no performance testing is required.

(2) The Permittee of a stationary SI internal combustion engine greater than or equal to 100 HP and less than or equal to 500 HP, shall keep a maintenance plan and records of conducted maintenance and shall, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, the Permittee shall conduct an initial performance test in accordance with 40 CFR 60.4244 within 1 year of engine startup to demonstrate compliance.

(3) The Permittee of a stationary SI internal combustion engine greater than 500 HP shall keep a maintenance plan and records of conducted maintenance and shall, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, the Permittee shall conduct an initial performance test in accordance with 40 CFR 60.4244 within 1 year of engine startup and conduct subsequent performance testing every 8,760 hours or 3 years, whichever comes first, thereafter to demonstrate compliance.

2. The Permittee of a stationary SI internal combustion engine that has to comply with the emission standards in Conditions VIII.D.6 through 8, or VIII.D.9 as applicable, shall demonstrate compliance according to one of the methods specified in Conditions VIII.E.9.a and VIII.E.2.b below.

[40 CFR 60.4243(b)]

a. Purchasing an engine certified according to procedures specified in this subpart, for the same model year and demonstrating compliance according to one of the methods specified in Condition VIII.E.1.

b. Purchasing a non-certified engine and demonstrating compliance with the emission standards specified in Conditions VIII.D.6 through 8, or VIII.D.9 as applicable, and according to the performance testing requirements specified 40 CFR 60.4244, as applicable, and according to

Conditions VIII.E.2.b(1) and (2) below.

- (1) The Permittee of a stationary SI internal combustion engine greater than 25 HP and less than or equal to 500 HP, shall keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, the Permittee shall conduct an initial performance test to demonstrate compliance.
  - (2) The Permittee of a stationary SI internal combustion engine greater than 500 HP shall keep a maintenance plan and records of conducted maintenance and shall, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, The Permittee shall conduct an initial performance test and conduct subsequent performance testing every 8,760 hours or 3 years, whichever comes first, thereafter to demonstrate compliance.
3. The Permittee of a stationary SI internal combustion engine that has to comply with the emission standards specified in Condition VIII.D.10 shall demonstrate compliance according Conditions VIII.E.2.b(1) or (2), except that if the Permittee complies according to Conditions VIII.E.2.b(1), The Permittee shall demonstrate that the non-certified engine complies with the emission standards specified in Condition VIII.D.10.

[40 CFR 60.4243(c)]

4. Emergency SI ICE

[40 CFR 60.4243(d)]

- a. The Permittee of an emergency stationary ICE, shall operate the emergency stationary ICE according to the requirements in Conditions VIII.E.4.a(1) through (3) below. In order for the engine to be considered an emergency stationary ICE, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in Conditions VIII.E.4.a(1) through (3) below, is prohibited. If you do not operate the engine according to the requirements in Conditions VIII.E.4.a(1) through (3) below, the engine will not be considered an emergency engine and must meet all requirements for non-emergency engines.
  - (1) There is no time limit on the use of emergency stationary ICE in emergency situations.
  - (2) The Permittee shall operate the emergency stationary ICE for any combination of the purposes specified in Conditions VIII.E.4.a(2)(a) through (c) below for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by Condition VIII.E.4.a(3) counts as part of the 100 hours per calendar year allowed by Condition VIII.E.4.a(2).
    - (a) Emergency stationary ICE may be operated for maintenance checks and readiness testing, provided that

the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The Permittee may petition the Director for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the Permittee maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year.

- (b) Emergency stationary ICE may be operated for emergency demand response for periods in which the Reliability Coordinator under the North American Electric Reliability Corporation (NERC) Reliability Standard EOP-002-3, Capacity and Energy Emergencies (incorporated by reference, see §60.17), or other authorized entity as determined by the Reliability Coordinator, has declared an Energy Emergency Alert Level 2 as defined in the NERC Reliability Standard EOP-002-3.
  - (c) Emergency stationary ICE may be operated for periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency.
- (3) Emergency stationary ICE may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in Condition VIII.E.4.a(2). Except as provided in Condition VIII.E.4.a(3)(a), the 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity.
- (a) The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the following conditions are met:
    - (i) The engine is dispatched by the local balancing authority or local transmission and distribution system operator;
    - (ii) The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region.
    - (iii) The dispatch follows reliability, emergency

operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines.

- (iv) The power is provided only to the facility itself or to support the local transmission and distribution system.
  - (v) The owner or operator identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the engine owner or operator.
5. A stationary SI natural gas fired engines may operate their engines using propane for a maximum of 100 hours per year as an alternative fuel solely during emergency operations, but must keep records of such use. If propane is used for more than 100 hours per year in an engine that is not certified to the emission standards when using propane, the Permittee is required to conduct a performance test in accordance with 40 CFR 60.4244 to demonstrate compliance with the emission standards of table 1 in Condition VIII.D.12.  
[40 CFR 60.4243(e)]
6. If you are a Permittee of a stationary SI internal combustion engine that is less than or equal to 500 HP and purchase a non-certified engine or do not operate and maintain the certified stationary SI internal combustion engine and control device according to the manufacturer's written emission-related instructions, the Permittee shall perform initial performance testing as indicated, but is not required to conduct subsequent performance testing unless the stationary engine is rebuilt or undergoes major repair or maintenance. A rebuilt stationary SI ICE means an engine that has been rebuilt as that term is defined in 40 CFR 94.11(a).  
[40 CFR 60.4243(f)]
7. It is expected that air-to-fuel ratio controllers will be used with the operation of three-way catalysts/non-selective catalytic reduction. The AFR controller shall be maintained and operated appropriately in order to ensure proper operation of the engine and control device to minimize emissions at all times.  
[40 CFR 60.4243(g)]
8. The Permittee of a stationary SI internal combustion engine with maximum engine power greater than or equal to 500 HP that is manufactured after July 1, 2007 and before July 1, 2008, and complies with the emission standards specified in Conditions VIII.D.4 or 5, you must comply by one of the methods specified in Conditions VIII.E.8.a through d below.  
[40 CFR 60.4243(h)]
- a. Purchasing an engine certified according to 40 CFR part 1048. The engine must be installed and configured according to the manufacturer's specifications.
  - b. Keeping records of performance test results for each pollutant for a test

conducted on a similar engine. The test must have been conducted using the same methods specified in this subpart and these methods must have been followed correctly.

- c. Keeping records of engine manufacturer data indicating compliance with the standards.
- d. Keeping records of control device vendor data indicating compliance with the standards.

- 9. The Permittee of a modified or reconstructed stationary SI internal combustion engine that complies with the emission standards specified in Condition VIII.D.10, the Permittee shall demonstrate compliance according to one of the methods specified in Conditions VIII.E.9.a or b below.

[40 CFR 60.4243(i)]

- a. Purchasing, or otherwise owning or operating, an engine certified to the emission standards in VIII.D.10, as applicable.
- b. Conducting a performance test to demonstrate initial compliance with the emission standards according to the requirements specified in 40 CFR 60.4244. The test must be conducted within 60 days after the engine commences operation after the modification or reconstruction.

#### **F. Notification, Reporting, and Recordkeeping Requirements**

- 1. The Permittee operating an applicable stationary SI ICE must meet the following recordkeeping requirements:

[40 CFR 60.4245(a)]

- a. Records of all notifications submitted to comply with this Section and all documentation supporting any notification.
- b. Maintenance conducted on the engine.
- c. If the stationary SI ICE is a certified engine, documentation from the manufacturer that the engine is certified to meet the emission standards and information as required in 40 CFR Parts 90, 1048, 1054, and 1060, as applicable.
- d. If the stationary SI ICE is not a certified engine or is a certified engine operating in a non-certified manner and subject to 40 CFR 60.4243(a)(2), documentation that the engine meets the emission standards.

[40 CFR 60.4245(a)(4)]

- 2. For all emergency stationary SI ICE greater than or equal to 500 HP manufactured on or after July 1, 2010, that do not meet the standards applicable to non-emergency engines, the Permittee shall keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter.

[40 CFR 60.4245(b)]

- 3. For all emergency stationary SI ICE greater than or equal to 130 HP and less than 500 HP manufactured on or after July 1, 2011 that do not meet the standards applicable to non-emergency engines, the Permittee shall keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter.

4. For all emergency stationary SI ICE greater than 25 HP and less than 130 HP manufactured on or after July 1, 2008, that do not meet the standards applicable to non-emergency engines, the Permittee shall keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The Permittee shall document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation.

[40 CFR 60.4245(b)]

5. The Permittee operating a stationary SI ICE greater than or equal to 500 HP that has not been certified by an engine manufacturer to meet the emission standards in 40 CFR 60.4231 must submit an initial notification as required in 40 CFR 60.7(a)(1). The notification must include the following information:

[40 CFR 60.4245(c)]

- a. Name and address of the Permittee;
- b. The address of the affected source;
- c. Engine information including make, model, engine family, serial number, model year, maximum engine power, and engine displacement;
- d. Emission control equipment; and
- e. Fuel used.

6. The Permittee operating an emergency stationary CI ICE with a maximum engine power more than 100 HP that operates or is contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in Conditions VIII.E.4.a(2)(b) and (c), shall submit an annual report according to the requirements in Conditions VIII.F.6.a through c below:

[40 CFR 60.4245(e)]

- a. The report must contain the following information.
  - (1) Company name and address where the engine is located;
  - (2) Date of the report and beginning and ending dates of the reporting period;
  - (3) Engine site rating and model year;
  - (4) Latitude and longitude of the engine in decimal degrees reported to the fifth decimal place;
  - (5) Hours operated for the purposes specified in Conditions VIII.E.4.a(2)(b) and (c) including the date, start time, and end time for engine operation for the purposes specified in Conditions VIII.E.4.a(2)(b) and (c);
  - (6) Number of hours the engine is contractually obligated to be available for the purposes specified in Conditions VIII.E.4.a(2)(b) and (c); and

[40 CFR 60.4245(e)(1)(vi)]

(7) Hours operated for the purposes specified in Condition VIII.E.4.a(3)(a), including the date, start time, and end time for engine operation for the purposes specified in Condition VIII.E.4.a(3)(a). The report must also identify the entity that dispatched the engine and the situation that necessitated the dispatch of the engine.

b. The first annual report shall cover the calendar year 2015 and must be submitted no later than March 31, 2016. Subsequent annual reports for each calendar year must be submitted no later than March 31 of the following calendar year.

[40 CFR 60.4245(e)(2)]

c. The annual report shall be submitted electronically using the subpart specific reporting form in the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) ([www.epa.gov/cdx](http://www.epa.gov/cdx)). However, if the reporting form specific to this subpart is not available in CEDRI at the time that the report is due, the written report must be submitted to the Administrator at the appropriate address listed in 40 CFR 60.4.

[40 CFR 60.4245(e)(3)]

#### 7. Permit Shield

Compliance with the conditions of this Section shall be deemed compliance with 40 CFR 60.4245.

[A.A.C. R18-2-325]

### IX. UNCLASSIFIED SOURCES

#### A. Applicability

This Section is applicable to equipment not classified under any other part of this general permit and any direct-fired equipment, including vapor generators.

#### B. Fuel Limitations

The Permittee shall burn only natural gas, liquefied petroleum gas (butane or propane) in the direct-fired equipment, as identified on the ATO(s).

[A.A.C. R18-2-306.A.2]

#### C. Operating Limitations

1. The Permittee shall not emit gaseous or odorous materials from equipment, operations or premises under their control in such quantities or concentrations as to cause air pollution.

[A.A.C. R18-2-730.D]

2. Materials including solvents or other volatile compounds, paints, acids, alkalis, pesticides, fertilizers and manure shall be processed, stored, used and transported in such a manner and by such means that they will not evaporate, leak, escape or be otherwise discharged into the ambient air so as to cause or contribute to air pollution. Where means are available to reduce effectively the contribution to air pollution from evaporation, leakage or discharge, the installation and use of such control methods, devices, or equipment shall be mandatory.

[A.A.C. R18-2-730.F]

3. Where a stack, vent or other outlet is at such a level that fumes, gas mist, odor, smoke, vapor or any combination thereof constituting air pollution is discharged to adjoining property, the Director may require the installation of abatement equipment or the alteration of such stack, vent, or other outlet by the owner or operator thereof to a degree that will adequately dilute, reduce or eliminate the discharge of air pollution to adjoining property.

[A.A.C. R18-2-730.G]

4. No person shall operate or use any machine, equipment, or other contrivance for the treatment or processing of animal or vegetable matter, separately or in combination, unless all gaseous vapors and gas entrained effluents from such operations, equipment, or contrivance have been either:

[A.A.C. R18-2-730.E]

- a. Incinerated to destruction, as indicated by a temperature measuring device, at not less than 1,200°F if constructed or reconstructed prior to January 1, 1989, or 1,600°F with a minimum residence time of 0.5 seconds if constructed or reconstructed thereafter; or
- b. Passed through such other device which is designed, installed and maintained to prevent the emission of odors or other air contaminants and which is approved by the Director.

5. Permit Shield

[A.A.C. R18-2-325]

Compliance with the conditions of this Part shall be deemed compliance with A.A.C. R18-2-702.B.3, -730.A.1, D, E, F, and G.

#### **D. Particulate Matter and Opacity**

1. Emission Limitations and Standards

The Permittee shall not cause, allow or permit the discharge of particulate matter into the atmosphere, in any one hour, from any equipment in total quantities in excess of the amounts calculated by one of the following equations:

- a. Process sources having a process weight rate of 60,000 pounds per hour (30 tons per hour) or less, the maximum allowable particulate emissions shall be determined by the following equation:

$$E = 4.10 P^{0.67}$$

Where:

E = the maximum allowable emissions rate in pounds-mass per hour.

P = the process weight rate in tons-mass per hour; or

[A.A.C. R18-2-730.A.1.a]

- b. Process sources having a process weight rate greater than 60,000 pounds per hour (30 tons per hour), the maximum allowable emissions shall be determined by the following equation:

$$E = 55.0 P^{0.11} - 40$$

Where, “E” and “P” are defined in condition IX.D.1.a above.

[A.A.C. R18-2-730.A.1.b]

2. Permit Shield

[A.A.C. R18-2-325]

Compliance with the conditions of this Part shall be deemed compliance with A.A.C. R18-2-702.B.3 and C.

**E. Opacity**

1. Emission Limitations

The Permittee shall not cause or allow to be discharged into the atmosphere, from any plume or effluent, visible emissions in excess of 20%, as determined by EPA Reference Method 9. Where the presence of uncombined water is the only reason for the exceedances of any visible emissions requirement, such exceedances shall not constitute a violation.

[A.A.C. R18-2-702.B.3 and C]

2. Monitoring, Recordkeeping and Reporting Requirements

The Permittee shall conduct monthly opacity monitoring for all emission units as per Condition II.C.3.a.

[A.A.C. R18-2-306.A.3.c, .306.A.4.a and 306.A.5]

3. Permit Shield

[A.A.C. R18-2-325]

Compliance with the conditions of this Part shall be deemed compliance with A.A.C. R18-2-702.B.3 and C.

**F. Nitrogen Oxides**

1. Emission Limitations

[A.A.C. R18-2-730.A.3]

The Permittee shall not cause, allow or permit the discharge of nitrogen oxides, from the stacks of the fuel burning equipment, into the atmosphere in excess of 500 parts per million.

2. Permit Shield

[A.A.C. R18-2-325]

Compliance with the conditions of this Part shall be deemed compliance with A.A.C. R18-2-730.A.3.

**G. Sulfur Dioxide**

1. Emission Limitations

[A.A.C. R18-2-730.A.2]

The Permittee shall not cause, allow or permit the discharge of sulfur dioxide, from the stacks of the fuel burning equipment, into the atmosphere in excess of 600 parts per million.

2. Permit Shield

[A.A.C. R18-2-325]

Compliance with the conditions of this Part shall be deemed compliance with A.A.C.R18-2-730.A.2.

**X. FUGITIVE DUST REQUIREMENTS**

**A. Applicability**

This Section applies to any source of fugitive dust in the facility.

**B. Particulate Matter and Opacity**

1. Open Areas, Roadways & Streets, Storage Piles, and Material Handling

a. Emission Limitations/Standards

- (1) Opacity of emissions from any fugitive dust non-point source shall not be greater than 40% measured in accordance with the Arizona Testing Manual, Reference Method 9.

[A.A.C. R18-2-614]

- (2) The Permittee shall not cause, allow or permit visible emissions from any fugitive dust point source, in excess of 20 percent opacity.

[A.A.C. R18-2-702.B.3]

- (3) The Permittee shall employ the following reasonable precautions to prevent excessive amounts of particulate matter from becoming airborne:

- (a) Keep dust and other types of air contaminants to a minimum in an open area where construction operations, repair operations, demolition activities, clearing operations, leveling operations, or any earth moving or excavating activities are taking place, by good modern practices such as using an approved dust suppressant or adhesive soil stabilizer, paving, covering, landscaping, continuous wetting, detouring, barring access, or other acceptable means;

[A.A.C. R18-2-604.A]

- (b) Keep dust to a minimum from driveways, parking areas, and vacant lots where motor vehicular activity occurs by using an approved dust suppressant, or adhesive soil stabilizer, or by paving, or by barring access to the property, or by other acceptable means;

[A.A.C. R18-2-604.B]

- (c) Keep dust and other particulates to a minimum by employing dust suppressants, temporary paving, detouring, wetting down or by other reasonable means when a roadway is repaired, constructed, or reconstructed;

[A.A.C. R18-2-605.A]

- (d) Take reasonable precautions, such as wetting, applying dust suppressants, or covering the load when transporting material likely to give rise to airborne dust;  
[A.A.C. R18-2-605.B]
- (e) Take reasonable precautions, such as the use of spray bars, wetting agents, dust suppressants, covering the load, and hoods when crushing, handling, or conveying material likely to give rise to airborne dust;  
[A.A.C. R18-2-606]
- (f) Take reasonable precautions such as chemical stabilization, wetting, or covering when organic or inorganic dust producing material is being stacked, piled, or otherwise stored;  
[A.A.C. R18-2-607.A]
- (g) Operate stacking and reclaiming machinery utilized at storage piles at all times with a minimum fall of material, or with the use of spray bars and wetting agents;  
[A.A.C. R18-2-607.B]
- (h) Any other method as proposed by the Permittee and approved by the Director.  
[A.A.C. R18-2-306.A.3.c]

b. Air Pollution Control Requirements

Haul Roads and Storage Piles

*Water, or an equivalent control, shall be used to control visible emissions from haul roads and storage piles.*

[A.A.C. R18-2-306.A.2 and -331.A.3.d]

[Material Permit Condition is indicated by underline and italics]

c. Monitoring and Recordkeeping Requirements

[A.A.C. R18-2-306.A.3.c]

The Permittee shall maintain records of the dates on which any of the activities listed in Condition X.B.1.a(3)(a) through h above were performed and the control measures that were adopted.

d. Opacity Monitoring Requirements

- (1) A certified Method 9 observer shall conduct a monthly visual survey of visible emissions from the fugitive dust sources. The Permittee shall keep a record of the name of the observer, the date and location on which the observation was made, and the results of the observation.
- (2) If the observer sees a visible emission from a fugitive dust source that on an instantaneous basis appears to exceed applicable opacity standard, then the observer shall, if practicable, take a six-minute Method 9 observation of the visible emission.

- (a) If the six-minute opacity of the visible emission is less than or equal to applicable opacity standard, the observer shall make a record of the following:
  - (i) Location, date, and time of the observation; and
  - (ii) The results of the Method 9 observation.
- (b) If the six-minute opacity of the visible emission exceeds applicable opacity standard, then the Permittee shall do the following:
  - (i) Adjust or repair the controls or equipment to reduce opacity to below the applicable standard; and
  - (ii) Report it as an excess emission under Section XII.A of Attachment "A".

[A.A.C. R18-2-306.A.3.c]

e. Permit Shield

[A.A.C. R18-2-325]

Compliance with the conditions of this Section shall be deemed compliance with A.A.C. R18-2-604, -605, -606, -607, -612, -614, and -702.B.3.

## XI. PORTABLE SOURCES

- A. Until the Department makes available the myDEQ online portal to apply for and obtain permits, the Permittee shall follow the requirements of A.A.C. R18-2-503. After the portal is available to apply for and obtain permits, the Permittee shall conduct all permitting services and transactions through the portal, including move notices.

[A.A.C. R18-2-306.A.2]

- B. **Move Notice**

[A.A.C. R18-2-513.G and -306.A.5]

A portable source granted coverage under a general permit may be transferred from one location to another provided that the Permittee of such equipment notifies the Director, and any control officer who has jurisdiction over the geographic area that includes the new location of the transfer prior to the transfer. The location change shall include the following:

1. A description of the permitted equipment to be transferred including permit number and as appropriate the Authorization-to-Operate number for each piece of equipment;
2. A description of the present location;
3. A description of the location to which the equipment is to be transferred, including the availability of all utilities, such as water and electricity, necessary for proper operation for all control equipment;
4. The date on which equipment is to be moved; and

5. The date on which operation of the equipment will begin at the new location.
6. A complete list of all equipment that will be located at the new location; and
7. Revised emissions calculations demonstrating that the equipment at the new location continues to qualify for the general permit under which the source has coverage.

**C. Renting or Leasing Permitted Equipment**

[A.A.C. R18-2-324.C]

In the case that equipment covered under this General Permit is rented or leased, a copy of this General Permit and relevant ATOs shall be provided by the owner to the renter or lessee, and the renter or lessee shall be bound by this permit's provisions. In the event a copy of this General Permit and relevant ATOs are not provided to the renter or lessee, both the owner and the renter or lessee shall be responsible for the operation of this equipment in compliance with the General Permit conditions and any violations thereof.

**D. Portable Sources Operating Solely in One County**

[A.A.C. R18-2-324.A and B]

A portable source that will operate for the duration of its permit solely in one county that has established a local air pollution control program pursuant to A.R.S. 49-479 shall obtain a permit from that county. A portable source with a county permit shall not operate in any other county until it receives a permit from the Arizona Department of Environmental Quality.

**XII. OTHER PERIODIC ACTIVITIES**

**A. Abrasive Blasting**

Particulate Matter and Opacity

1. Emission Limitations/Standards

- a. The Permittee shall not cause or allow sandblasting or other abrasive blasting without minimizing dust emissions to the atmosphere through the use of good modern practices. Good modern practices include:

- (1) Wet blasting;
- (2) Effective enclosures with necessary dust collecting equipment;  
or
- (3) Any other method approved by the Director.

[A.A.C. R18-2-726]

- b. Opacity

[A.A.C. R18-2-702.B.3]

The Permittee shall not cause, allow or permit visible emissions from sandblasting or other abrasive blasting operations in excess of 20% opacity, as measured by EPA Reference Method 9.

2. Monitoring and Recordkeeping Requirement

[A.A.C. R18-2-306.A.3.c]

Each time an abrasive blasting project is conducted, the Permittee shall keep a record of the following:

- a. The date the project was conducted;
- b. The duration of the project; and
- c. Type of control measures employed.

3. Permit Shield

[A.A.C. R18-2-325]

Compliance with the conditions of this Part shall be deemed compliance with A.A.C. R18-2-702.B.3 and -726.

**B. Use of Paints**

1. Volatile Organic Compounds

a. Emission Limitations/Standards

While performing spray painting operations, the Permittee shall comply with the following requirements:

- (1) The Permittee shall not conduct or cause to be conducted any spray painting operation without minimizing organic solvent emissions. Such operations, other than architectural coating and spot painting, shall be conducted in an enclosed area equipped with controls containing no less than 96 percent of the overspray.

[A.A.C. R18-2-727.A]

- (2) The Permittee or their designated contractor shall not either:

- (a) Employ, apply, evaporate, or dry any architectural coating containing photochemically reactive solvents for industrial or commercial purposes; or
- (b) Thin or dilute any architectural coating with a photochemically reactive solvent.

[A.A.C. R18-2-727.B]

- (3) For the purposes of Condition XII.B.1.a(2), a photochemically reactive solvent shall be any solvent with an aggregate of more than 20 percent of its total volume composed of the chemical compounds classified in Condition XII.B.1.a(3)(a) through (c) below, or which exceeds any of the following percentage composition limitations, referred to the total volume of solvent:

- (a) A combination of the following types of compounds having an olefinic or cyclo-olefinic type of unsaturation-hydrocarbons, alcohols, aldehydes, esters, ethers, or ketones: 5 percent.
- (b) A combination of aromatic compounds with eight or

more carbon atoms to the molecule except ethylbenzene:  
8 percent.

- (c) A combination of ethylbenzene, ketones having branched hydrocarbon structures, trichloroethylene or toluene: 20 percent.

[A.A.C.R18-2-727.C]

- (4) Whenever any organic solvent or any constituent of an organic solvent may be classified from its chemical structure into more than one of the groups of organic compounds described in Condition XII.B.1.a(3)(a) through (c) above, it shall be considered to be a member of the group having the least allowable percent of the total volume of solvents.

[A.A.C.R18-2-727.D]

b. Monitoring and Recordkeeping Requirements

[A.A.C. R18-2-306.A.3.c]

- (1) Each time a spray painting project is conducted, the Permittee shall log in ink, or in an electronic format, a record of the following:

- (a) The date the project was conducted;
- (b) The duration of the project;
- (c) Type of control measures employed;
- (d) Material Safety Data Sheets for all paints and solvents used in the project; and
- (e) The amount of paint consumed during the project.

- (2) Architectural coating and spot painting projects shall be exempt from the recordkeeping requirements of Condition XII.B.1.b(1) above.

c. Permit Shield

[A.A.C. R18-2-325]

Compliance with this Part shall be deemed compliance with the following applicable requirement as of the issuance date of this permit: A.A.C. R18-2-727.

2. Opacity

a. Emission Limitation/Standard

[A.A.C. R18-2-702.B.3]

The Permittee shall not cause, allow or permit visible emissions from painting operations in excess of 20% opacity, as measured by EPA Reference Method 9.

b. Permit Shield

[A.A.C. R18-2-325]

Compliance with the condition of this Part shall be deemed compliance with A.A.C. R18-2-702.B.3.

**C. Demolition/Renovation - Hazardous Air Pollutants**

1. Emission Limitation/Standard

[A.A.C. R18-2-1101.A.8]

The Permittee shall comply with all of the requirements of 40 CFR 61 Subpart M (National Emissions Standards for Hazardous Air Pollutants - Asbestos).

2. Monitoring and Recordkeeping Requirement

[A.A.C. R18-2-306.A.3.c]

The Permittee shall keep all required records in a file. The required records shall include the “NESHAP Notification for Renovation and Demolition Activities” form and all supporting documents.

3. Permit Shield

[A.A.C. R18-2-325]

Compliance with the conditions of this Part shall be deemed compliance with A.A.C. R18-2-1101.A.8.

**AIR QUALITY CONTROL GENERAL PERMIT  
FOR CONCRETE BATCH PLANTS**

**ATTACHMENT "C": ADDITIONAL REQUIREMENTS FOR SOURCES OPERATING  
IN MARICOPA COUNTY**

**I. FACILITY WIDE LIMITATIONS**

**A. Applicability of Multiple Permit Conditions**

While operating in Maricopa County, the Permittee shall also comply with the conditions set forth in this Attachment.

**B. Opacity**

Emission Limitations and Standards

The Permittee shall not discharge into the ambient air from any single source of emissions any air contaminant, other than uncombined water, in excess of 20% opacity for a period aggregating more than three minutes in any sixty minute period.

[300 §301]

**C. Gaseous and Odorous Emissions**

[320 §300]

The Permittee shall not emit gaseous or odorous air contaminants from equipment, operations or premises under their control in such quantities or concentrations as to cause air pollution.

**D. Air Pollution Control Requirements**

**1. Material Containment Required**

[320 §302]

Materials including, but not limited to solvents or other volatile compounds, paints, acids, alkalies, pesticides, fertilizer and manure shall be processed, stored, used and transported in such a manner and by such means that they will not unreasonably evaporate, leak, escape or be otherwise discharged into the ambient air so as to cause or contribute to air pollution. Where means are available to reduce effectively the contribution to air pollution from evaporation, leakage or discharge, the installation and use of such control methods, devices or equipment shall be mandatory.

**2. Stack Requirements**

[320 §303]

Where a stack, vent or other outlet is at such a level that air contaminants are discharged to adjoining property, the Director may require the installation of abatement equipment or the alteration of such stack, vent or other outlet to a degree that will adequately dilute, reduce or eliminate the discharge of air contaminants to adjoining property.

**3. Operations and Maintenance (O&M) Plan for Emission Control System (ECS)**

For the purposes of these conditions, an (ECS) is a system for reducing emissions of particulates, consisting of both collection and control devices, which are approved in writing by the Director and are designed and operated in accordance with good engineering practices.

a. The Permittee shall provide and maintain, readily available on-site at all times, (an) O&M plan(s) for any ECS, any other emission processing equipment, and any ECS monitoring devices that are used pursuant to these conditions.

[316 §305.1.a]

b. The Permittee shall submit to the Director for approval the O&M Plan(s) for each ECS and ECS monitoring device that is used pursuant to these conditions.

[316 §305.1.b]

c. The Permittee shall comply with all identified actions and schedules provided in each O&M Plan.

[316 §305.1.c]

d. *The Permittee shall install, maintain and calibrate monitoring devices described in the O&M Plan.* The monitoring devices shall measure pressures, rates of flow, or other operating conditions necessary to determine if the control devices are functioning properly.

[Rules 316 §305.3 and -331.A.3.c]

[Material Permit Condition is indicated by underline and italics]

e. The Permittee must fully comply with all O&M Plans that the Permittee has submitted for approval, even if such O&M Plans have not yet been approved, unless notified in writing by the Director.

[316 §305.4]

#### 4. O&M Plan Requirements for Dust Control Measures

a. The Permittee shall provide and maintain, readily available on-site at all times, an O&M plan for equipment associated with any process fugitive emissions and fugitive dust control measures (i.e. gravel pads, wheel washers, truck washers, rumble grates, watering systems, and street sweepers) that are implemented pursuant to these conditions.

[316 §305.2.a]

b. The Permittee shall comply with all identified actions and schedules provided in each O&M Plan.

[316 §305.2.b]

c. The Permittee must fully comply with all O&M Plans that the Permittee has submitted for approval, even if such O&M Plans have not yet been approved, unless notified in writing by the Director.

[316 §305.3]

#### 5. Monitoring, Recordkeeping and Reporting Requirements

a. Opacity Monitoring

Opacity shall be determined by observations of visible emissions in Accordance with EPA reference Method 9 as modified by EPA Reference Method 203B.

[300 §501]

b. Operational Recordkeeping

[316 §501.2.a]

The Permittee shall keep records for all days that the facility is actively operating. The records shall include all of the following:

- (1) Hours of operation;
- (2) Type of batch plant (wet, dry, central)
- (3) Throughput per day of basic raw materials including sand, aggregate, cement (tons/day)
- (4) Volume of concrete produced per day (cubic yards per day);
- (5) Volume of aggregate mined per day (cubic yards/day); and
- (6) Amount of each basic raw materials including sand, aggregate, cement, flyash, delivered per day (tons/day)
- (7) For facilities that assert to be below the thresholds in Maricopa County Rule 316 Section 307.6(a) and Section 307.6(e.1), (minimum of 60 aggregate trucks, mixer trucks, and/or batch trucks exiting a facility on any day ), number of aggregate trucks, mixer trucks, and/or batch trucks exiting the facility.

c. Additional Data For Dry Mix Concrete Plants And/Or Bagging Operations: Records shall include all of the following:

[316 §501.2.b]

- (1) Number of bags of dry mix produced;
- (2) Weight (size) of bags of dry mix produced;
- (3) Kind and amount of fuel consumed in dryer (cubic feet/day or gallons/day); and
- (4) Kind and amount of any back-up fuel, if any.

d. Control and Monitoring Device Data

[316 §501.2.c]

The Permittee shall keep records for all days that the facility is actively operating. The records shall include all of the following:

- (1) For a fabric filter baghouse
  - (a) Date of inspection
  - (b) Date and designation of bag replacement;

- (c) Date of service or maintenance related activities; and
    - (d) Time, date, and cause of fabric filter baghouse failure and/or down time, if applicable.
  - (2) For a scrubber:
    - (a) Date of service or maintenance related activities;
    - (b) Liquid flow rate;
    - (c) Other operating parameters that need to be monitored to assure that the scrubber is functioning properly and operating within design parameters; and
    - (d) Time, date, and cause of scrubber failure and/or down time, if applicable.
  - (3) For watering systems (e.g. spray bars or an equivalent control);
    - (a) Date, time, and location of each moisture sampling point; and
    - (b) Results of moisture testing.
- e. Operating and Maintenance Plan Records [316 § 501.3]
  - (1) For any ECS, and other emission processing equipment, and any ECS monitoring devices that are used pursuant to these conditions;
    - (a) Period of time that an approved emission control system is operating to comply with the conditions in this permit;
    - (b) Period of time that an approved emission control system is not operating;
    - (c) Flow rates;
    - (d) Pressure drop;
    - (e) Other conditions necessary to determine if the approved emission control system is functioning properly;
    - (f) Results of visual inspections; and
    - (g) Correction action taken, if necessary.
  - (2) For any equipment associated with any process fugitive emissions and any fugitive dust control measures that are implemented to comply with this permit;
    - (a) A written record of self-inspection on each day that a facility is actively operating. Self-inspection records

shall include daily inspections or in compliance with O&M Plan requirements, whichever is more frequent;

- (b) Maintenance of street sweepers; and;
  - (c) Maintenance of trackout control devices, gravel pads, wheel washers, and truck washers.
- f. The Permittee shall keep all operational information required by Conditions I.D.5.b, I.D.5.c, I.D.5.d, and I.D.5.e, in a complete and consistent manner on site and shall be made available without delay to the Director upon request.

[316 § 501.1]

## 6. Testing Requirements

The following test methods shall be used as appropriate:

- a. Grain Loading: Particulate matter and associated moisture content shall be determined using the applicable EPA Reference Methods 1 through 5, 40 CFR Part 60, Appendix A.

[316 § 502.1]

- b. Opacity Determination: Opacity observations to measure visible emissions from activities regulated by Section II, and III of this Attachment, (excluding truck dumping directly into any screening operation, feed hopper, or crusher; Raw Material Storage and Distribution, Concrete Plants, Bagging Operations, Internal Combustion Engines, and Other Periodic Activities) shall be conducted in accordance with the techniques specified in EPA Reference Method 203B (Visual Determination of Opacity of Emissions from Stationary Sources for Time-Exception regulations), 40 CFR Part 51, Appendix M, adopted as of July 1, 2007. Emissions shall not exceed the applicable opacity standard for a period aggregating more than three minutes in any 60-minute period.

[316 § 502.2]

- c. Soil Moisture Testing for Watering Systems

[316 § 502.3]

- (1) If twice daily moisture sampling is required, such sampling shall be conducted within one of startup and again at 3pm or within one hour prior to daily shutdown but no less frequently than once every 8-hour period.
- (2) If daily moisture sampling is required, such sampling shall be conducted within one hour after startup.
- (3) Moisture testing shall be conducted on all crushers, shaker screens, and material transfer points (excluding wet plants). Unless prior approval from the Director is granted, moisture testing shall be conducted at the following sample points:
  - (a) Within 10 feet from the point where crushed aggregate material is placed on the discharge belt conveyor from

- the crusher;
- (b) Within 10 feet from the point where screened aggregate material is placed on the conveyor; and
  - (c) From each stacker point.
- (4) The number of sampling points identified above may be reduced if the Permittee complies with all the follow requirements:
- (a) A 5% minimum moisture content, as demonstrated by a soil moisture test conducted in accordance with the test methods described in this section, is maintained at the primary crusher;
  - (b) A minimum of 20 soil moisture samples are taken at all of the points identified in Condition I.D.6.c(3), above;
  - (c) A 4% minimum moisture content, as demonstrated by a soil moisture test conducted in accordance with the test methods described in this section and as demonstrated by the minimum 20 soil moisture samples identified above, is maintained at all the points in Condition I.D.6.c(3), above.
  - (d) A written request is submitted to and approved by the Director to revise/modify the Dust Control Plan to reflect the change in moisture content and the reduced number of sampling points according to the demonstration made by the Permittee in accordance with Condition I.D.6.c(4) of this Attachment.
- (5) Moisture testing shall include all aggregate material less than 0.25 inches in diameter.
- (6) Moisture testing shall be conducted in accordance with the requirements of American Society for Testing and Materials C566-97 (2004) “Standard Test Method for Total Evaporable Moisture Content of Aggregate by Drying” with the exception that the smaller sample portions may be used.

7. Permit Shield

Compliance with the conditions of this Section shall be deemed compliance with the following Maricopa County Rules: 300 § 301, 300 § 501, 320 § 300, 320 § 302, 320 § 303, 316 § 305.1.a, 316 § 305.1.b, 316 § 305.1.c, 316 § 305.2, 316 § 305.3, 316 § 305.4, 300 § 502, 330 § 503.1, 330 § 503.2, 330 § 503.4, 316 § 501.1, 316 § 501.2, 316 § 501.3, 316 § 502.1, 316 § 502.2, and 316 § 502.3.

[A.A.C. R18-2-325]

**II. RAW MATERIAL STORAGE AND DISTRIBUTION, CONCRETE PLANTS, AND/OR BAGGING OPERATIONS - PROCESS EMISSION LIMITATIONS AND CONTROLS**

## **Particulate Matter and Opacity**

### **A. Emission Limitations/Standards**

The Permittee shall not discharge or cause to be discharged into the ambient air:

1. Stack emissions exceeding 5% opacity [316 § 303.1.a]
2. Fugitive dust emissions exceeding 10% opacity from any affected operation or process source, excluding truck dumping. [316 § 303.1.b]

### **B. Air Pollution Control Requirements**

1. The Permittee shall implement the following process controls:
  - a. On all cement, lime, and/or flyash storage silo(s), the Permittee shall install an operational overflow warning system/device. The system/device shall be designed to alert operator(s) to stop the loading operation when the cement, lime, and/or flyash storage silo(s) are reaching a capacity that could adversely impact pollution abatement equipment. [316 § 303.2.a]
  - b. On new cement, lime, and/or flyash silo(s) the Permittee shall install a properly sized fabric filter baghouse or equivalent device designed to meet a maximum outlet grain loading of 0.01 gr/dscf. [316 § 303.2.b]
  - c. On dry mix concrete plant loading stations/truck mixed product, the Permittee shall implement one of the following process controls: [316 § 303.2.c]
    - (1) The Permittee shall install a rubber fill tube;
    - (2) The Permittee shall install a water spray;
    - (3) The Permittee shall install a properly sized fabric filter baghouse or delivery system;
    - (4) The Permittee shall have enclosed mixer stations such that no visible emissions occur; or
    - (5) Conduct mixer loading stations in an enclosed process building such that no visible emissions from the building occur during the mixing activities.
  - d. On cement silo filling processing/loading operations controls, the Permittee shall install a pressure control system designed to shut-off cement silo filling processes/loading operations, if pressure from delivery truck is excessive, as defined in the O&M Plan. [316 § 303.2.d]

### **C. Monitoring, Record Keeping, and Reporting Requirements**

The Permittee shall meet all of the monitoring and recordkeeping requirements specified in Condition III.C of Attachment “B” in order to comply with Condition II.A of Attachment “C”.

[A.A.C R18-2-306.A.3.c]

**D. Permit Shield**

Compliance with this Section shall be deemed compliance with Maricopa County Rule 316 § 303.1 and Maricopa County Rule 316 § 303.2.

[230 § 309]

**III. INTERNAL COMBUSTION ENGINES**

**A. Applicability**

1. The provisions of this rule apply to any single existing or new stationary spark or compression-ignited reciprocating IC engine including stationary IC engines used in cogeneration, with a rating of greater than 250 brake horsepower (bhp). The provisions of this rule also apply to a combination of IC engines each with a rated brake horsepower greater than 50 bhp used at a single source, whose maximum aggregate rated brake horsepower is greater than 250 bhp.

[324 § 102]

2. An existing engine shall mean an engine that commenced operation prior to October 22, 2003, or an engine on which the construction or modification has commenced prior to October 22, 2003, including the contractual obligation to undertake and complete an order for an engine.

[324 § 208]

3. A new engine shall mean any engine that is not an existing engine.

[324 § 215]

4. Partial Exemptions for Emergency Engines

Any stationary IC engine operated as an emergency engine for any of the following reasons is exempt from all of the conditions of this Section, except for Conditions III.B.4.a, III.B.4.c, III.C.1, and III.D.1.a, if the engines are:

a. Used only for power when normal power service fails from the serving utility or if onsite electrical transmission or onsite power generation equipment fails;

[324 § 104.1]

b. Used only for the emergency pumping of water resulting from a flood, fire, lightning strikes, police action or for any other essential public services which affect the public health and safety.

[324 § 104.2]

5. Permit Shield

[A.A.C. R18-2-325]

Compliance with the terms of Condition III.A shall be deemed compliance with Maricopa County Rule 324 § 208, 324 § 215, 324 § 104.1 and 324 § 104.2

**B. General**

1. Good Combustion Practices/Tuning Procedure

[324 § 302]

The Permittee shall conduct preventative maintenance or tuning procedures recommended by the engine manufacturer to ensure good combustion practices to minimize NO<sub>x</sub> emissions. A handheld monitor may be used if so desired by the Permittee for measurement of NO<sub>x</sub>, CO and concentrations in the effluent stream after each adjustment has been made to ensure NO<sub>x</sub> and CO minimization. In lieu of a manufacturer's procedure, a different procedure specified by any other maintenance guideline may be used as a default procedure. The tuning procedure shall include all of the following, if so equipped, and appropriate to the type of engine:

- a. Lubricating Oil and Filter: Change once every three months or after no more than 300 hours of operation, whichever occurs last. [324 § 302.1]
- b. Inlet Air Filter: Clean once every three months or after no more than 300 hours of operation and replace every 1,000 hours of operation or every year, whichever occurs last. [324 § 302.2]
- c. Fuel Filter: Clean once every year or replace (if cartridge type) once every 1,000 hours of operation, whichever occurs last. [324 § 302.3]
- d. Check and adjust the following once every year or after no more than 1,000 hours of operation, whichever occurs last: [324 § 302.4]
  - (1) Intake and exhaust valves
  - (2) Spark plugs (if so equipped)
  - (3) Spark timing and dwell or fuel injection timing (if adjustable), and
  - (4) Carburetor mixture (if adjustable)
- e. Spark Plugs and Ignition Points: Replace after 3,000 hours of operation or every year whichever occurs last. [324 § 302.5]
- f. Coolant: Change after 3,000 hours of operation or every year whichever occurs last; and [324 § 302.6]
- g. Exhaust System: Check for leaks and/or restrictions after 3,000 hours of operation or every year whichever occurs last. [324 § 302.7]

2. Efficiency Allowance

Each emission limitation expressed in Conditions III.D.1, III.E.1.a, III.E.1.b, III.E.1.c, III.E.1.d, III.F.1.a, III.F.1.b, and III.G.1, may be multiplied by X, where X equals the engine efficiency (E) divided by a reference efficiency of 30

percent. Engine efficiency shall be determined by one of the following methods whichever is higher:

$$E = (\text{Engine Output}) \times (100) \div (\text{Energy Input})$$

Where energy input is determined by a fuel measuring device accurate to  $\pm 5\%$  and is based upon the higher heating value (HHV) of the fuel. Percent efficiency (E) shall be averaged over 14 consecutive minutes and measured at peak load for the applicable engine.

$$E = (\text{Manufacturers Rated Efficiency [Continuous] at LHV}) \div (\text{HHV})$$

Where LHV = the lower heating value of the fuel

Engine efficiency shall not be less than 30 percent; an engine with an efficiency lower than 30 percent shall be assigned an efficiency of 30 percent for the purposes of this Condition.

[324 § 305]

### 3. Equivalent or Identical Engine Replacement

An equivalent or identical replacement engine that replaces an existing engine shall be treated as an existing engine for the purposes of compliance with Condition III of Attachment “C”, unless the engine commenced operation or was constructed or modified after October 22, 2003, including the contractual obligation to undertake and complete an order for an engine and then it will be considered a new engine in this Section.

[324 § 306]

### 4. Monitoring, Reporting and Recordkeeping

[324 § 502]

a. The Permittee shall keep a record that includes an initial one time entry that lists the particular engine combustion type (compression or spark-ignition or rich or lean burn); manufacturer; model designation, rated brake horsepower, serial number and where the engine is located on the site.

[324 § 502.1]

b. The Permittee shall maintain an annual record of good combustion procedures.

[324 § 502.3]

c. The Permittee shall keep annual engine records for emergency engines that include:

(1) Hours of operation; and

(2) Explanation for the use of the engine if it is used as an emergency engine.

[324 § 502.4]

### 5. Permit Shield

Compliance with Condition III.B shall be deemed compliance with Maricopa County Rule 324 § 302, 324 § 305, 324 § 306 and 324 § 502.

[A.A.C. R18-2-325]

**C. Fuel Limitations**

1. Permitted Fuel

[324 § 301]

The Permittee shall use fuel that contains no more than 0.05% sulfur by weight.

2. Monitoring, Reporting and Recordkeeping Requirements

a. If the Director requests proof of the sulfur content, the Permittee shall submit fuel receipts, contract specifications, pipeline meter tickets, Material Safety Data Sheets (MSDS), fuel supplier information or purchase records, if applicable, from the fuel supplier, indicating the sulfur content of the fuel oil. In lieu of these, testing of the fuel oil for sulfur content to meet the 0.05% limit shall be permitted if so desired by the Permittee for evidence of compliance.

[324 § 501.4]

b. The Permittee shall maintain a monthly record which shall include the hours of operation, the type of fuel used and documentation verifying compliance with the fuel sulfur content.

[324 § 502.4]

3. Permit Shield

Compliance with the terms of Condition III.C shall be deemed compliance with Maricopa County Rule 324 § 301, 324 § 501.4 and 324 § 502.4.

[A.A.C. R18-2-325]

**D. Particulate Matter and Opacity**

1. Emission Limitations/Standards

[324 § 303]

a. The Permittee shall not discharge into the ambient air from any single source of emissions any air contaminant, other than uncombined water, in excess of 20% opacity.

b. The Permittee shall limit PM emissions to 0.40 g/bhp-hr for any new compression ignition engine that has a rate brake horsepower greater than 250 bhp.

[324 § 304 Table 3]

2. Monitoring, Reporting, and Record keeping

[A.A.C. R18-2-306.A.3.c]

a. The Permittee shall meet all of the monitoring and recordkeeping requirements specified in Conditions VI.B.2, VII, or VIII of Attachment “B” in order to comply with Conditions III.D.1.a of Attachment “C”.

[A.A.C R18-2-306.A.3.c]

- b. The Permittee shall maintain copies of the manufacturer's specifications to show compliance with Condition III.D.1.b of Attachment "C".  
[A.A.C. R18-2-306.A.4]

3. Permit Shield

Compliance with Condition III.D shall be deemed compliance with Maricopa County Rule 324 § 303 and 304.

[A.A.C. R18-2-325]

E. Nitrogen Oxides

1. Emission Limitations/Standards

- a. The Permittee shall comply with one of the following requirements to control NO<sub>x</sub> emissions if the rated brake horsepower (bhp) of the existing compression ignition engine is equal to or greater than 400 bhp:  
[324 § 304 Table 1]

- (1) The Permittee shall limit emissions to 550 ppm<sub>dv</sub> or 7.2 g/bhp-hr;
- (2) Employ a turbocharger with aftercooler/intercooler; or
- (3) Employ a 4-degree injection timing retard.

- b. The Permittee shall comply with one of the following requirements to control NO<sub>x</sub> emissions if the rated brake horsepower (bhp) of the existing compression-ignition engine is less than 400 bhp and greater than or equal to 250 bhp:  
[324 § 304 Table 1]

- (1) The Permittee shall limit emissions to 770 ppm<sub>dv</sub> or 10 g/bhp-hr;
- (2) Employ a turbocharger with aftercooler/intercooler; or
- (3) Employ a 4-degree injection timing retard.

- c. The Permittee shall comply with one of the following requirements to control NO<sub>x</sub> emissions if the rated brake horsepower (bhp) of the existing spark ignition is greater than 250 bhp:  
[324 § 304 Table 2]

- (1) The Permittee shall limit emissions to 280 ppm<sub>dv</sub> or 4.0 g/bhp-hr; or
- (2) Employ a three way catalyst. The three way catalyst shall provide a minimum of 80% control efficiency for NO<sub>x</sub> for those engines fueled with natural gas, propane, or gasoline.

- d. The Permittee shall comply with one of the following requirements to control NO<sub>x</sub> emissions if the rated brake horsepower (bhp) of the new spark or compression ignition is greater than 250 bhp:  
[324 § 304 Table 3]

- (1) The Permittee shall limit emissions to 110 ppm<sub>dv</sub> or 1.5 g/bhp-hr if the engine is a new lean burn spark engine;
- (2) The Permittee shall limit emissions to 20 ppm<sub>dv</sub> or 0.30 g/bhp-hr if the engine is a new rich burn spark engine; and
- (3) The Permittee shall limit emissions to 530 ppm<sub>dv</sub> or 6.9 g/bhp-hr if the engine is a new compression ignition engine.

2. Monitoring, Recordkeeping, and Testing

- a. For new I.C. engines, compliance with the limitations listed in Condition III.E.1 shall be demonstrated by either:

[324 § 501.3]

- (1) A statement from the manufacturer that the engine meets the most stringent emissions standards found in 40 CFR Part 89 or 90 applicable to the engine and its model year at the time of manufacture, or
- (2) Performance of emission testing using the test methods listed in Section 503 of Maricopa County Rule 324.

- b. For existing engines, compliance with the emission limitations shall be demonstrated by maintaining records under Condition III.B.4. Emission testing shall be performed if requested by the Director.

[324 § 501.1]

3. Permit Shield

Compliance with Condition III.E shall be deemed compliance with Maricopa County Rule 324 § 304, 324 § 500 and 324 § 503.

[A.A.C. R18-2-325]

**F. Carbon Monoxide**

1. Emission Limitations/Standards

- a. The Permittee shall comply with one of the following requirements to control CO emissions if the rated brake horsepower (bhp) of the existing spark ignition is greater than 250 bhp:

[324 § 304 Table 2]

- (1) The Permittee shall limit emissions to 4,500 ppm<sub>dv</sub>; or
- (2) Employ a three way catalyst. The three way catalyst shall provide a minimum of 80% control efficiency for those engines fueled with natural gas, propane, or gasoline.

- b. The Permittee shall comply with one of the following requirements to control CO emissions if the rated brake horsepower (bhp) of the new spark or compression ignition is greater than 250 bhp:

[324 § 304 Table 3]

- (1) The Permittee shall limit emissions to 4,500 ppm<sub>dv</sub> if the engine

is either a new lean burn or rich burn spark engine; and

- (2) The Permittee shall limit emissions to 1,000 ppm<sub>dv</sub> if the engine is a new compression ignition engine.

2. Monitoring, Recordkeeping, and Testing

[324 § 500, 503]

- a. For new I.C. engines, compliance with the limitations listed in Condition III.E.1 shall be demonstrated by either:

- (1) A statement from the manufacturer that the engine meets the most stringent emissions standards found in 40 CFR Part 89 or 90 applicable to the engine and its model year at the time of manufacture; or

- (2) Performance of emission testing using the test methods listed in Section 503 of Maricopa County Rule 324.

- b. For existing engines, compliance with the emission limitations shall be demonstrated by maintaining records under Condition III.B.4. Emission testing shall be performed if requested by the Director.

[324 § 501.1]

3. Permit Shield

[A.A.C. R18-2-325]

Compliance with Condition III.F shall be deemed compliance with Maricopa County Rule 324 § 304, and 324 § 501.3.

[A.A.C. R18-2-325]

**G. Volatile Organic Compounds**

1. Emission Limitations/Standards

The Permittee shall comply with one of the following requirements to control VOC emissions if the rated brake horsepower (bhp) of the existing spark ignition is greater than 250 bhp:

[324 § 304 Table 2]

- a. The Permittee shall limit emissions to 800 ppm<sub>dv</sub> or 5.0 g/bhp-hr; or
- b. Employ a three way catalyst. The three way catalyst shall also provide a minimum of at least 50% control efficiency for VOC for those engines fueled by gasoline.

2. Monitoring, Recordkeeping, and Testing

[324 § 501.3]

- a. For new I.C. engines, compliance with the limitations listed in Condition III.F.1 shall be demonstrated by either:

- (1) A statement from the manufacturer that the engine meets the most stringent emissions standards found in 40 CFR Part 89 or 90 applicable to the engine and its model year at the time of manufacture; or

(2) Performance of emission testing using the test methods listed in Section 503 of Maricopa County Rule 324.

b. For existing engines, compliance with the emission limitations shall be demonstrated by maintaining records under Condition III.B.4. Emission testing shall be performed if requested by the Director.

[324 § 501.1]

3. Permit Shield

[A.A.C. R18-2-325]

Compliance with the terms of this Condition III.G shall be deemed compliance with Maricopa County Rule 324 § 304 and 324 § 501.3.

#### IV. FUGITIVE DUST

##### A. Emission and Operational Limitations

1. Opacity

For emissions that are not already regulated by an opacity limit, the Permittee shall not discharge or cause or allow to be discharged into the ambient air fugitive dust emissions exceeding 20% opacity.

[316 § 306.1]

2. Visible Emission Limitation Beyond Property Line

The Permittee shall not cause or allow fugitive dust emissions from any active operation, open storage pile, or disturbed surface area associated with such facility such that the presence of such fugitive dust emissions remain visible in the atmosphere beyond the property line of such facility.

[316 § 306.2]

3. Wind Events

The fugitive dust emission limitations described in Conditions IV.A.1 and IV.A.2 above shall not apply during a wind event, if the Permittee meets the following conditions:

a. Has implemented the fugitive dust control measures described in Section IV.B of Attachment “C”, as applicable;

[316 § 306.3.a]

b. Has compiled and retained records, in accordance with Section IV.C.3.g of Attachment “C”, and has documented by records the occurrence of a wind event on the day(s) in question. The occurrence of a wind event must be determined by the nearest Maricopa County Air Quality Department monitoring station, from any other certified meteorological station, or by a wind instrument that is calibrated according to manufacturer’s standards and that is located at the site being checked; and

[316 § 306.3.b]

c. Has implemented the following high wind fugitive dust control measures, as applicable:

[316 § 306.3.c]

- (1) For an active operation, implement one of the following fugitive dust control measures;
  - (a) Cease active operation that may contribute to an exceedance of the fugitive dust emission limitations described in Section IV.A.1 of this Attachment for the duration of the wind event and, if active operation is ceased for the remainder of the work day, stabilize the area; or
  - (b) Before and during active operations, apply water or other suitable dust suppressant other than water to keep the soil moist.
  
- (2) For an inactive open storage pile, implement one of the following fugitive dust control measures, in accordance with the test methods described in Condition IV.D.2 of Attachment “C”, and in Appendix C (Fugitive Dust Test Methods) of the Maricopa County Rules:
  - (a) Maintain a soil crust by applying water or other suitable dust suppressant other than water or by implementing another fugitive dust control measure, in sufficient quantities to meet the stabilization standards described in Condition IV.D.2 of Attachment “C”.
  - (b) Cover open storage pile with tarps, plastic, or other material such that wind will not remove the covering, if open storage pile is less than eight feet high.
  
- (3) For an inactive disturbed surface area, implement one of the following fugitive dust control measures, in accordance with the test methods described in Condition IV.D.2 of Attachment “C”, and in Appendix C (Fugitive Dust Test Methods) of the Maricopa County Rules:
  - (a) Uniformly apply and maintain surface gravel or a dust suppressant other than water; or
  - (b) Maintain a soil crust by applying water or other suitable dust suppressant other than water or by implementing another fugitive dust control measure, in sufficient quantities to meet the stabilization standards described in Condition IV.D.2 of Attachment “C”.

#### 4. Silt Loading and Silt Content Standards

The Permittee shall not discharge or allow to be discharged into the ambient air from unpaved roads and unpaved parking and staging areas, fugitive dust emissions exceeding 20% opacity, in accordance with the test methods described in Condition I.D.6 of this Attachment or in Appendix C- fugitive Dust Test Methods of the Maricopa county Rules, and one of the following:

[316 § 306.4]

- a. For unpaved roads, silt loading equal to or greater than 0.33 oz/ft<sup>2</sup>; or silt content exceeding 6%.
- b. For unpaved parking and staging areas, silt loading equal to or greater than 0.33oz/ft<sup>2</sup> or silt content exceeding 8%.

[316 § 306.4]

## 5. Stabilization Standards

- a. The Permittee of a facility with an open area or a disturbed surface area on which no activity is occurring (including areas that are temporarily or permanently inactive) shall be considered in violation of this rule if such area is not maintained in a manner that meets at least one of the standards listed below, as applicable.

[316 § 306.5.a]

- (1) Maintain a soil crust;
- (2) Maintain a threshold friction velocity (TFV) for disturbed surface areas corrected for non -erodible elements of 100 cm/second or higher;
- (3) Maintain a flat vegetative cover (i.e., attached (rooted) vegetation or unattached vegetative debris lying on the surface with a predominant horizontal orientation that is not subject to movement by wind) that is equal to at least 50%;
- (4) Maintain a standing vegetative cover (i.e., vegetation that is attached (rooted) with a predominant vertical orientation) that is equal to or greater than 30%;
- (5) Maintain a standing vegetative cover (i.e., vegetation that is attached (rooted) with a predominant vertical orientation) that is equal to or greater than 10% and where the threshold friction velocity is equal to or greater than 43 cm/second when corrected for non-erodible elements;
- (6) Maintain a percent cover that is equal to or greater than 10% for non-erodible elements; or
- (7) Comply with a standard of an alternative test method, upon obtaining the written approval from the Director and the Administrator.

- b. If no activity is occurring on an open storage pile and material handling or surface soils where support equipment and vehicles operate in association with such facility and if an open storage pile and material handling or surface soils where support equipment and vehicles operate in association with such facility contain more than one type of visibly distinguishable stabilization characteristics, soil, vegetation, or other characteristics, which are visibly distinguishable, the Permittee shall test each representative surface separately for stability, in an area that represents a random portion of the overall disturbed conditions of the site, in accordance with the appropriate test methods described Condition IV.D of this Attachment.

**B. Air Pollution Control Requirements**

The Permittee shall implement the fugitive dust control measures described in this Section. Any fugitive dust control measure that is implemented must achieve the applicable standard(s) described Condition IV.A of Attachment “C”, as determined by the corresponding test method(s), as applicable, and must achieve other applicable standard(s) set forth in this Section.

The Permittee may submit a request to the Director and the Administrator for the use of alternative control measure(s). The request shall include the proposed alternative control measure, the control measure that the alternative would replace, and a detailed statement or report demonstrating that the measure would result in equivalent or better emission control than the measures prescribed in this rule.

[316 § 307]

**1. Open Storage Piles and Material Handling**

The Permittee shall implement all of the following fugitive dust control measures, as applicable. Open storage pile(s) and material handling does not include berms and guard rails that are installed to comply with 30 CFR 56.93000. However, such berms and guard rails shall be installed and maintained in compliance with Condition IV.A.1, IV.A.2, and IV.A.5, of this Attachment.

[316 § 307.1]

a. Prior to, and/or while conducting loading and unloading operations, implement one of the following fugitive dust control measures:

[316 § 307.1.a]

- (1) Spray material with water, as necessary; or
- (2) Spray material with a dust suppressant other than water, as necessary.

b. When not conducting loading and unloading operation implement one of the following fugitive dust control measures:

[316 § 307.1.b]

- (1) Spray material with water, as necessary;
- (2) Maintain a 1.5% or more soil moisture content of the open storage pile(s);
- (3) Locate open storage pile(s) in a pit/in the bottom of a pit.
- (4) Arrange open storage pile(s) such that storage pile(s) of larger diameter products are on the perimeter and act as barriers to/for open storage pile(s) that could create fugitive dust emissions;
- (5) Construct and maintain wind barriers, storage silos, or a three-sided enclosure with walls, whose length is no less than equal to the length of the pile, whose distance from the pile is no more than twice the height of the pile, whose height is equal to the pile height, and whose porosity is no more than 50%.

- (6) Cover open storage piles with tarps, plastic, or other material to prevent wind from removing the coverings.
- c. When installing new open storage pile(s) at an existing facility and/or when installing new open storage pile(s) at a new facility, the Permittee shall implement all of the following fugitive dust control measures only if it is determined to be feasible on a case-by-case basis through the Dust Control Plan by assessing the amount of open land available at the property at the time the new open storage pile(s) are formed:

[316 § 307.1.c]

  - (1) Install the open storage pile(s) at least 25 feet from the property line; and
  - (2) Limit the height of the open storage pile(s) to less than 45 feet.
- d. For existing open storage pile(s) and when installing open storage pile(s) for an existing facility or for a new facility, if such open storage pile(s) will be constructed over eight feet high and will not be covered, then the Permittee shall install, use, and maintain a water truck or other method that is capable of completely wetting the surfaces of open storage pile(s).

[316 § 307.1.d]

## 2. Surface Stabilization Where Support Equipment and Vehicles Operate

The Permittee shall implement one of the following fugitive dust control measures on areas other than areas identified in Condition IV.B.3 or IV.B.4, below, where loaders, support equipment, and vehicles operate:

- a. Apply and maintain water;
- b. Apply and maintain a dust suppressant, other than water; or
- c. Apply a gravel pad, in compliance with the Condition IV.B.6.b(4) of Attachment "C".

[316 § 307.2]

## 3. Haul/Access Roads That Are Not In Permanent Areas of a Facility

- a. The Permittee shall implement one of the following fugitive dust control measures, as applicable, before engaging in the use of, or in the maintenance of, haul/access roads. Compliance with the provisions of this section shall not relieve any person subject to the requirements of this section of this rule from complying with any other federally enforceable requirements (i.e., a permit issued under Section 404 of the Clean Water Act).

[316 § 307.3.a]

  - (1) Install and maintain bumps, humps, or dips for speed control and apply water, as necessary;
  - (2) Limit vehicle speeds and apply water, as necessary;
  - (3) Pave;
  - (4) Apply and maintain a gravel pad in compliance with Condition

IV.B.6.b(4) of Attachment “C”;

(5) Apply a dust suppressant, other than water; or

(6) Install and maintain a cohesive hard surface.

- b. For a new facility, if it is determined that none of the fugitive dust control measures described in Condition IV.B.3.a of Attachment “C”, can be technically and feasibly implemented, then the Permittee shall maintain a minimum distance of 25 feet from the property line for haul/access roads associated with the new facility. Such determination shall be made and approved in writing by the Director and the Administrator and shall be approved in the Dust Control Plan.

[316 § 307.3.b]

4. On-Site Traffic

- a. The Permittee shall require all batch trucks and material delivery trucks to remain on roads with paved surfaces or cohesive hard surfaces.

[316 § 307.4.a]

- b. The Permittee shall require all aggregate trucks to remain on paved surfaces or cohesive hard surfaces, except when driving on roads leading to and from aggregate loading areas/loading operations, as approved in the Dust Control Plan.

[316 § 307.4.b]

- c. The Permittee shall require all batch trucks and material delivery trucks to enter and exit the facility/operation only through entrances that comply with the trackout requirements in Condition IV.B.6 of Attachment “C”.

[316 § 307.4.c]

- d. The Permittee shall pave or install a cohesive hard surface on permanent areas of a facility on which vehicles drive, as approved in the Dust Control Plan.

[316 § 307.4.d]

5. Off-Site Traffic

When hauling and/or transporting bulk material off-site, the Permittee shall implement all of the following control measures:

- a. Load all haul trucks such that the freeboard is not less than three inches;

[316 § 307.5.a]

- b. Prevent spillage or loss of bulk material from holes or other openings in the cargo compartment’s floor, sides, and/or tailgate(s); and

[316 § 307.5.b]

- c. Cover haul trucks with a tarp or other suitable closure.

[316 § 307.5.c]

6. Trackout

- a. Rumble Grate and Wheel Washer:

The Permittee of a new permanent facility and the Permittee of an existing permanent facility with a minimum of 60 aggregate trucks, mixer trucks, and/or batch trucks exiting a facility on any day onto paved public roadways/paved areas accessible to the public shall install, maintain, and use a rumble grate and wheel washer, in accordance with all of the following conditions, as applicable. A vehicle wash and/or a cosmetic wash may be substituted for a wheel washer, provided such vehicle wash and/or cosmetic wash has at least 40 pounds per square inch (psi) water spray from the nozzle (the Permittee shall have a water pressure gauge available on-site to allow verification of such water pressure), meets the definition of wheel washer (i.e., is capable of washing the entire circumference of each wheel of the vehicle), is operated in such a way that visible deposits are removed from the entire circumference of each wheel of the vehicle exiting the wash, is installed, maintained, and used in accordance with criteria listed below, and is approved in the Dust Control Plan for the facility.

[316 § 307.6.a]

- (1) The Permittee shall locate a rumble grate within 10 feet from a wheel washer.
  - (a) The rumble grate and wheel washer shall be located no less than 30 feet prior to each exit that leads to a paved public roadway/paved area accessible to the public and that is used by aggregate trucks, mixer trucks, and/or batch trucks.
  - (b) The Permittee may be allowed to install a rumble grate and wheel washers less than 30 feet prior to each exit if the Permittee can demonstrate to the Director that there is not adequate space to install a rumble grate and wheel washer no less than 30 feet prior to each exit and that a rumble grate and wheel washer at a shorter distance will be adequate to prevent trackout.
  - (c) A rumble grate shall consist of raised dividers (rails, pipes, or grates) a minimum of three inches tall, six inches apart, and 20 feet long, to allow a vibration to be produced such that dust is shaken off the wheels of a vehicle as the entire circumference of each wheel of the vehicle passes over the rumble grate.
- (2) The Permittee shall ensure that all aggregate trucks, mixer trucks, and/or batch trucks exit the facility via the rumble grate first and then the wheel washer.
- (3) The Permittee shall post a sign by the rumble grate and wheel washer to designate the speed limit as 5 miles per hour.
- (4) The Permittee shall pave the roads from the rumble grate and wheel washer to the facility exits leading to paved public roadways/paved areas accessible to the public.
- (5) The Permittee shall ensure that all aggregate trucks, mixer

trucks, and/or batch trucks remain on the paved roads between the rumble grate and wheel washer and the facility exits leading to paved public roadways/paved areas accessible to the public.

b. Rumble Grate, Wheel Washer, Or Truck Washer:

A Permittee not subject to Condition IV.B.6.a of Attachment “C”, shall install, maintain, and use a rumble grate, wheel washer, or truck washer in accordance with all of the following:

[316 § 307.6.b]

- (1) A rumble grate, wheel washer, or truck washer shall be located no less than 30 feet prior to each exit that leads to a paved public roadway/paved area accessible to the public and that is used by aggregate trucks, mixer trucks, and/or batch trucks
  - (a) The Permittee may be allowed to install a rumble grate and wheel washers less than 30 feet prior to each exit if the Permittee can demonstrate to the Director that there is not adequate space to install a rumble grate and wheel washer no less than 30 feet prior to each exit and that a rumble grate and wheel washer at a shorter distance will be adequate to prevent trackout.
  - (b) A rumble grate shall consist of raised dividers (rails, pipes, or grates) a minimum of three inches tall, six inches apart, and 20 feet long, to allow a vibration to be produced such that dust is shaken off the wheels of a vehicle as the entire circumference of each wheel of the vehicle passes over the rumble grate.
- (2) The Permittee shall ensure that all aggregate trucks, mixer trucks, and/or batch trucks exit the facility via a rumble grate, wheel washer, or truck washer.
- (3) The Permittee shall post a sign by the rumble grate, wheel washer, or truck washer to designate the speed limit as 5 miles per hour.
- (4) If haul/access roads are unpaved between the rumble grate, wheel washer, or truck washer and the facility exits leading to paved public roadways/paved areas accessible to the public, a gravel pad shall be installed, maintained, and used from the rumble grate, wheel washer, or truck washer to such paved public roadways/paved areas accessible to the public in accordance with all of the following:
  - (a) Gravel pad shall be designed with a layer of washed gravel, rock, or crushed rock that is at least one inch or larger in diameter and 6 inches deep, 30 feet wide, and 50 feet long and shall be flushed with water or completely replaced as necessary to comply with the trackout threshold described in Condition IV.B.6.d of Attachment “C”.

- (b) Gravel pad shall have a gravel pad stabilizing mechanism/device (i.e., curbs or structural devices along the perimeter of the gravel pad) and shall be flushed with water or completely replaced as necessary to comply with the trackout threshold described in Condition IV.B.6.d of Attachment “C”.

c. Exemptions for Wheel Washers:

The Permittee shall not be required to install, maintain and use a wheel washer, if any one of the following are true:

[316 § 307.6.c]

- (1) A facility has all paved roads and meters aggregate or related materials directly to a ready-mix or hot mix asphalt truck, with the exception of returned products. The owner and/or operator of the facility shall install, maintain, and use a rumble grate in compliance with Condition IV.B.6.b of Attachment “C”.
- (2) A facility is less than 5 acres in land size and handles recycled asphalt and recycled concrete exclusively. The owner and/or operator of the facility shall install, maintain, and use a rumble grate in compliance with Condition IV.B.6.b of Attachment “C”, and shall install a gravel pad in compliance with Condition IV.B.6.b(4) of Attachment “E”, on all unpaved roads leading to the facility exits leading to paved public roadways/paved areas accessible to the public.
- (3) A facility has a minimum of ¼ mile paved roads leading from a rumble grate to the facility exits leading to paved public roadways/paved areas accessible to the public.
- (4) If the facility meets the definition of infrequent operations, then the Permittee shall
  - (a) Install, maintain, and use a rumble grate in compliance with Condition IV.B.6.b of Attachment “C”, and shall install a gravel pad in compliance with Condition IV.B.6.b(4) of Attachment “C”. The gravel pad shall be installed for a distance of no less than 100 feet from the rumble grate to the facility exits leading to paved public roadways/paved areas accessible to the public.
  - (b) Keep records in accordance with Condition IV.C of Attachment “C”, as applicable.
  - (c) Notify the Director in the event that the facility will operate more than 52 days per year based on the average rolling 3-year period after June 8, 2005 and the Permittee shall comply with Condition IV.B.6, as applicable.

d. Trackout Distance:

The Permittee shall not allow trackout to extend a cumulative distance of 25 linear feet or more from all facility exits onto paved areas accessible to the public. Notwithstanding the proceeding, the Permittee shall clean up all other trackout at the end of the workday.

[316 § 307.6.d]

e. Cleaning Paved Roads Identified in the Dust Control Plan:

The Permittee shall clean all paved roads identified in the dust Control Plan in accordance with all of the following as applicable:

[316 § 307.6.e]

- (1) If the Permittee has a minimum of 60 aggregate trucks, mixer trucks, and/or batch trucks exiting the facility on any day then the Permittee shall sweep the paved roads with a street sweeper by the end of each production work shift, if there is evidence of dirt and/or other bulk material extending a cumulative distance of 12 linear feet or more on any paved road.
- (2) The Permittee with less than 60 aggregate trucks, mixer trucks, and/or batch trucks exiting the facility on any day shall sweep the paved roads with a street sweeper by the end of every other work day. On the days that paved roads are not swept, The Permittee shall apply water on at least 100 feet of internal roads or the entire length of paved roads leading to an exit to paved public roadways/paved areas accessible to the public, if such roadways are less than 100 feet long.
- (3) The Permittee, who purchases street sweepers after June 8, 2005, shall purchase street sweepers that meet the criteria of PM<sub>10</sub> efficient South Coast Air Quality Management Rule 1186 certified street sweepers.
- (4) The Permittee of a new facility shall use South Coast Air Quality Management Rule 1186 certified street sweepers to sweep paved roads.

7. Pad Construction for Processing Equipment

The Permittee shall implement, maintain, and use fugitive dust control measures during the construction of pads for processing equipment so as to meet all of the applicable requirements of this section and shall identify, in the Dust Control Plan, such fugitive dust control measures.

[316 § 307.7]

8. Spillage

In addition to complying with the fugitive dust emission limitations described in Condition IV.A of Attachment “C” and implementing fugitive dust control measures described in Conditions IV.B.1 through IV.B.7 of Attachment “C”, as applicable, The Permittee shall implement the following fugitive dust control measures, as applicable, when spillage occurs:

[316 § 307.8]

- a. Promptly remove any pile of spillage on paved haul/access roads/paved roads;
- b. Maintain in a stabilized condition any pile of spillage on paved haul/access roads/paved roads and remove such pile by the end of each day; and
- c. Maintain in a stabilized condition all other piles of spillage with dust
- d. Suppressants until removal.

9. Night-Time Operations

The Permittee shall implement, maintain, and use fugitive dust control measures at night, as approved in the Dust Control Plan.

[316 § 307.9]

**C. Monitoring, Recordkeeping, and Reporting**

1. Fugitive Dust Control Technician

The Permittee with a rated or permitted capacity of 25 tons or more of material per hour or with five acres or more of disturbed surface area subject to a permit, whichever is greater, shall have in place a Fugitive Dust Control Technician who shall meet all of the following qualifications:

[316 § 309]

- a. Be authorized by the Permittee to have full authority to ensure that fugitive dust control measures are implemented on-site and to conduct routine inspections, recordkeeping, and reporting to ensure that all fugitive dust control measures are installed, maintained, and used in compliance with this rule.
- b. Be trained in accordance with the Comprehensive Dust Control Training Class conducted or approved by the Director, successfully complete, at least once every three years, such Comprehensive Dust Control Training Class and have a valid dust training certification identification card readily accessible on-site while acting as a Fugitive Dust Control Technician.
- c. Be authorized by the owner and/or operator of the facility to install, maintain, and use fugitive dust control measures, deploy resources, and shutdown or modify activities as needed.
- d. Be on-site at all times during primary dust-generating operations related to the purposes for which the permit was obtained.
- e. Be certified to determine opacity as visible emissions in accordance with the provisions of the EPA Method 9 as specified in 40 CFR, Part 60, Appendix A.
- f. Be authorized by the Permittee to ensure that the site superintendent or other designated on-site representative of the Permittee and water truck and water pull drivers for each site be trained in accordance with the Basic Dust Control Training Class conducted or approved by the

Director with jurisdiction over the site and successfully complete, at least once every three years, such Basic Dust Control Training Class.

2. Basic Dust Control Training Class

a. At least once every three years, the site superintendent or other designated on-site representative of the Permittee, if present at a site that has more than one acre of disturbed surface area that is subject to a permit issued by the Director requiring control of PM<sub>10</sub> emissions from dust generating operation, shall successfully complete a Basic Dust Control Training Class conducted or approved by the Director.

[316 § 310.1]

b. At least once every three years, water truck and water-pull drivers shall successfully complete a Basic Dust Control Training Class conducted or approved by the Director.

[316 § 310.2]

c. All persons having successfully completed training during the 2006 and 2007 calendar years shall be deemed to have satisfied the requirement to successfully complete the Basic Dust Control Training Class, if the training that was completed was conducted or approved by the Director. Completion of the Comprehensive Dust Control Training Class, as required by this Section, shall satisfy this requirement.

[316 § 310.3]

d. Basic Dust Control Training Class Records

The Permittee shall compile, maintain, and retain a written record for each employee subject to the Basic Dust Control Training Class. Such written records shall include the name of the employee, the date of the Basic Dust Control Training class that such employee successfully completed, and the name of the agency/representative who conducted the class.

[316 § 501.5]

3. Dust Control Plan

a. The Permittee shall submit, to the Director, a Dust Control Plan that describes all fugitive dust control measures to be implemented, in order to comply with this permit.

[316 § 311.1]

b. The Permittee shall submit to the Director a Dust Control Plan that describes all equipment associated with any process fugitive emissions to be implemented, in order to comply with this permit as well as the documentation specified below. If an alternative plan for conducting required soil moisture tests is approved by the Director, included in a Dust Control Plan, and implemented by the Permittee and if the Director determines that such alternative plan included in a Dust Control Plan has been followed, yet fugitive dust emissions still exceed the standards of this permit, then the Director shall issue a written notice to the Permittee explaining such determination. The Permittee shall make written revisions to the Dust Control Plan and shall submit such revised Dust Control Plan to the Director within three working days of receipt of the Director's written notice, unless such time period is extended by the

Director, upon request, for good cause. During the time that such Permittee must still comply with all requirements of this Section.

(1) Documentation of soil moisture analysis for each move notice regarding portable sources.

[316 § 311.2]

c. The Dust Control Plan shall contain all the information described in Rule 310-Fugitive Dust from Dust Generating Operations from the Maricopa County Rules.

[316 § 311.3]

d. All other criteria associated with the Dust Control Plan shall meet the criteria described in Rule 310-Fugitive Dust from Dust Generating Operations from Maricopa County Rules.

[316 § 311.4]

e. The Director shall approve, disapprove, or conditionally approve the Dust Control Plan, in accordance with the criteria used to approve, disapprove, or conditionally approve a permit. Failure to comply with the provisions of an approved Dust Control Plan shall be deemed a violation of Section IV of this Attachment.

[316 § 311.5]

f. With each move notice regarding portable sources, the Permittee of a facility shall submit, to the Director, a Dust Control Plan that meets the requirements of Section IV of this Attachment.

[316 § 311.6]

g. Dust Control Plan Records

The Permittee shall compile, maintain, and retain a written record of self-inspection of all fugitive dust control measures implemented, in order to comply with the Dust Control Plan, on each day that the facility is actively operating. Self-inspection records shall include information as described in Rule 310 of the Maricopa County Rules.

[316 § 501.4]

#### 4. Opacity Monitoring

Opacity monitoring of fugitive visible emissions shall be conducted in accordance with the techniques described in Appendix C (Fugitive Dust Test Methods) of the Maricopa County Rules

[316 § 503]

#### 5. Facility Information Sign

The Permittee shall erect and maintain a facility information sign at the main entrance such that members of the public can easily view and read the sign at all times. Such sign shall have a white background, have black block lettering that is at least four inches high, and shall contain at least all of the following information:

a. Facility name and Permittee's name;

b. Current number of the air quality permit or of authority to operate under

a general permit;

- c. Name and local phone number of the person(s) responsible for dust control matters; and
- d. Text stating: "Dust Complaints? Call Maricopa County Air Quality Department – (602) 372-2703, or the Arizona Department Of Environmental quality at (602) 771-2286."

[316 § 308]

**D. Testing Requirements**

1. The Permittee shall conduct performance tests for soil stabilization and moisture content as required by the Director.

[A.A.C. R18-2-312]

2. The stabilization standards described in Condition IV.A.5 of Attachment "C" shall be determined by using the following test methods in accordance with Appendix C (Fugitive Dust Test Methods) of the Maricopa County Rules:

- a. Soil Moisture Content and Soil Compaction Characteristic Test Methods

[316 § 504]

- (1) ASTM Method D2216-05 ("Standard Test Method for Laboratory Determination of Water (Moisture) Content of Soil and Rock by Mass"), 2005 edition
- (2) ASTM Method D1557-02e1 (2002) ("Test Method for Laboratory Compaction Characteristics of Soil Using Modified Effort

- b. Stabilization Standards Test Methods

[316 § 505]

- (1) Appendix C, Section 2.1.2 (Silt Content Test Method) of these rules to estimate the silt content of the trafficked parts of unpaved roads (not to exceed 6%) and unpaved parking lots (not to exceed 8%).
- (2) Appendix C, Section 2.3 (Test Methods for Stabilization-Soil Crust Determination) (The Drop Ball Test) of Maricopa County rules for a soil crust.
- (3) Appendix C, Section 2.4 (Test Methods for Stabilization-Determination Of Threshold Friction Velocity (TFV)) (Sieving Field Procedure) of Maricopa County rules for threshold friction velocity (TFV) corrected for non-erodible elements of 100 cm/second or higher.
- (4) Appendix C, Section 2.5 (Test Methods for Stabilization-Determination Of Flat Vegetative Cover) of Maricopa County rules for flat vegetation cover (i.e., attached (rooted) vegetation or unattached vegetative debris lying on the surface with a predominant horizontal orientation that is not subject to movement by wind) that is equal to at least 50%.

- (5) Appendix C, Section 2.6 (Test Methods for Stabilization-Determination Of Standing Vegetative Cover) of Maricopa County rules for standing vegetation cover (i.e., vegetation that is attached (rooted) with a predominant vertical orientation) that is equal to or greater than 30%.
- (6) Appendix C, Section 2.6 (Test Methods for Stabilization-Determination Of Standing Vegetative Cover) of Maricopa County rules for standing vegetation cover (i.e., vegetation that is attached (rooted) with a predominant vertical orientation) that is equal to or greater than 10% and where the threshold friction velocity is equal to or greater than 43 cm/second when corrected for non-erodible elements.
- (7) Appendix C, Section 2.7 (Test Methods for Stabilization-Rock Test Method) of Maricopa County rules for a percent cover that is equal to or greater than 10%, for non-erodible elements.
- (8) An alternative test method approved in writing by the Director and the Administrator.

**E. Permit Shield**

Compliance with Condition V shall be deemed compliance with the following Maricopa County Rules: 316 § 306.1, 316 § 306.2, 316 § 306.3, 316 § 306.4, 316 § 306.5, 316 § 307.1, 316 § 307.2., 316 § 307.3, 316 § 307.4, 316 § 307.5, 316 § 307.6, 316 § 307.7, 316 § 307.8, 316 § 307.9, 316 § 308, 316 § 309, 316 § 310, 316 § 311, 316 § 501, 316 § 503, 316 § 504, and 316 § 505.

[A.A.C. R18-2-325]

**V. OTHER PERIODIC ACTIVITY REQUIREMENTS**

**A. Abrasive Blasting**

1. Applicability

These conditions shall apply to all abrasive blasting operations unless they meet the following criteria:

- a. Self-contained, enclosed abrasive blasting equipment that is not vented to the atmosphere or is vented inside a building with the exhaust directed away from any opening to the building exterior, or
- b. Hydroblasting.

[312 §103]

2. Limitations for Blasting

All abrasive blasting operations shall be performed in a confined enclosure, unless one of the following conditions are met, in which case unconfined blasting according to Section V.A.3 below may be performed:

[312 §301]

- a. The item to be blasted exceeds 8 feet in any one dimension, or

- b. The surface being blasted is fixed in a permanent location, cannot easily be moved into a confined enclosure, and the surface is not normally dismantled or moved prior to abrasive blasting.

3. Requirements for unconfined blasting:

At least one of the following control measures shall be used;

[312 §302]

- a. Wet abrasive blasting,
- b. Vacuum blasting, or
- c. Dry abrasive blasting, provided that all of the following conditions are met:
  - (1) Perform only on a metal substrate.
  - (2) Use only certified abrasive for dry unconfined blasting.
  - (3) Blast only paint that is lead free (i.e. the lead content is less than 0.1 percent).
  - (4) Perform the abrasive blasting operation directed away from unpaved surfaces.
  - (5) Use the certified abrasive not more than once unless contaminants are separated from the abrasive through filtration and the abrasive conforms to its original size.

4. Requirements for confined blasting

Dry abrasive blasting in a confined enclosure with a forced air exhaust shall be conducted by implementing either of the following:

[312 §303]

- a. Using a certified abrasive, or
- b. Venting to an ECS.

5. Requirements for ECS and Monitoring Devices:

- a. The following requirements apply to blasting equipment that vents through a required ECS and requires a permit under Rule 200 of the Maricopa County Rules. Buildings or enclosures are not considered control equipment. Equipment that meets the following two criteria and is operated and maintained in accordance with manufacturer's specifications is exempt from the requirements of this Section.

[312 §304]

- (1) Is self-contained and the total internal volume of the blast section is 50 cubic feet or less, and
- (2) Is vented to an ECS.

- b. Operation and Maintenance (O&M) Plan Required for Emission Control

System (ECS):

[312 §304.1]

- (1) The Permittee shall provide and maintain, readily available at all times, an O&M Plan for any ECS, other emission processing equipment, and ECS monitoring devices that are used pursuant to Condition V.A.5.b above, or to an air pollution control permit.
- (2) The Permittee shall submit to the Director for approval the O&M Plans of each ECS and each ECS monitoring device that is used pursuant to Condition V.A.5 above.
- (3) The Permittee shall comply with all the identified actions and schedules provided in each O&M Plan.

c. Installing and Maintaining ECS Monitoring Devices

The Permittee operating an ECS pursuant to this Section shall properly install and maintain in calibration, in good working order and in operation, devices described in the facility's O&M Plan that indicate temperatures, pressures, rates of flow, or other operating conditions necessary to determine if air pollution control equipment is function properly.

[312 §304.2]

6. Opacity Limitation

The Permittee shall not discharge into the atmosphere from any abrasive blasting operation any air contaminant for an observation period or periods aggregating more than three minutes in any sixty minute period an opacity equal to or greater than 20 percent. An indicated excess will considered to have occurred if any cumulative period of 15-second increments totaling more than three minutes within any sixty minute period was in excess of the opacity standard.

[312 §305]

7. Wind Event

No dry unconfined abrasive blasting operation shall be conducted during a wind event.

[312 §306]

8. Traffic Markers

Surface preparation for raised traffic delineating markers and pavement marking removal using abrasive blasting operations shall be performed by wet blasting, hydroblasting or vacuum blasting. Dry blasting may be performed using only certified abrasives when:

[312 §307]

- a. Removing pavement markings of less than 1,000 square feet;
- b. Performing surface preparation for raised traffic delineating markers of less than 1,000 square feet.

9. Work Practices

[312 §308]

- a. Unconfined Blasting

- b. The Permittee shall clean up spent abrasive material with a potential to be transported during a wind event and, until removal occurs, shall at a minimum, meet the provisions of this Section.
- c. Confined Blasting
- d. At the end of the work shift the Permittee shall clean up spillage, carry-out or trackout of any spent abrasive material with a potential to be transported during a wind event.

10. Monitoring, Recordkeeping and Reporting

At a minimum, the Permittee subject to this Condition shall keep the following records onsite that are applicable to all abrasive blasting operations

[312 §501]

- a. If blasting operations occur daily or are a part of a facility's primary work activity, then the following shall be kept as a record:
  - (1) A list of the blasting equipment,
  - (2) The description of the type of blasting as confined, unconfined, sand, wet, or other,
  - (3) The locations of the blasting equipment or specify if the equipment is portable,
  - (4) A description of the ECS associated with the blasting operations,
  - (5) The days of the week blasting occurs, and
  - (6) The normal hours of operation.
- b. If blasting operations occur periodically, then the following shall be kept as a record:
  - (1) The date the blasting occurs,
  - (2) The blasting equipment that is operating,
  - (3) A description of the type of blasting, and
  - (4) A description of the ECS associated with the blasting operations,
- c. The type and amount of solid abrasive material consumed on a monthly basis. Include name of certified abrasive used, as applicable.
- d. Material Safety Data Sheets (MSDS) or results of any lead testing that was performed on paint that is to be removed via unconfined blasting, as applicable.

11. Records Retention

Copies of reports, logs, and supporting documentation required by this Condition shall be retained for at least 2 years.

[312 §502]

12. Compliance Determination

- a. Control Device Efficiency—Manufacturer’s specifications, testing results or engineering data that demonstrate control efficiency shall be submitted upon request of the Director.

[312 §503.1]

- b. Paint Lead Level—Prior to unconfined blasting of paint, the Permittee must be the generator with firsthand knowledge of lead content in the paint, or retain evidence of the lead level from the material MSDS or from a lead test performed in accordance with Maricopa County Rule 312 §506.1 through Maricopa County Rule 312 §506.7. Unconfined blasting is prohibited if the lead content of the material is greater than 0.1 percent.

[312 §503.2]

13. Opacity Observations

Opacity shall be determined by observations of visible emissions conducted in accordance with EPA Reference Method 9 and with the following provisions:

[312 §505]

- a. Emissions from unconfined blasting shall be observed at the densest point of the emission from the closest point of discharge, after a major portion of the spent abrasives has fallen out.
- b. Emissions from unconfined blasting employing multiple nozzles shall be considered a single source unless it can be demonstrated by the Permittee that each nozzle, evaluated separately, meets the emission standards of this Section.
- c. Emissions from confined blasting shall be observed at the densest point after the air contaminant leaves the enclosure or associated ECS.

14. Permit Shield

Compliance with the conditions of this Section shall be deemed compliance with Maricopa County Rule 312 §103, Maricopa County Rule 312 §301, Maricopa County Rule 312 §302, Maricopa County Rule 312 §303, Maricopa County Rule 312 §304, Maricopa County Rule 312 §304.1, Maricopa County Rule 312 §304.2, Maricopa County Rule 312 §305, Maricopa County Rule 312 §306, Maricopa County Rule 312 §307, Maricopa County Rule 312 §308, Maricopa County Rule 312 §501, Maricopa County Rule 312 §502, Maricopa County Rule 312 §503.1 and 2, and Maricopa County Rule 312 §505.

[A.A.C. R18-2-325]

**B.** Spray Coating Operations

1. Controls Required

The Permittee shall not use or operate any spray painting or spray coating equipment unless one of the following conditions is met:

- a. Equipment Operated In Enclosures Located Outside a Building:

[315§301.1]

- b. Spray coating equipment shall be operated inside an enclosure which has at least three sides a minimum of eight feet in height and able to contain any object or objects being coated.

- (1) Three-Sided Enclosures:

- Spray shall be directed in a horizontal or downward pointing manner so that overspray is directed at the walls or floor of the enclosure. No spraying shall be conducted within three feet of any open end or within two feet of the top of the enclosure.

- (2) More Complete Enclosures:

- For enclosures with three sides and a roof or complete enclosures, spray shall be directed into the enclosure so that the overspray is directed away from any opening in the enclosure. No spraying shall be conducted within three feet of any open end or within two feet of any open top of the enclosure.

- c. Equipment Operated With Forced Air Exhaust Vented Directly Outside:  
[315§301.2]

Any spray booth or enclosure with forced air exhaust must have a filtering system with average overspray removal efficiency of at least 92% by weight for the type of material being sprayed. No gaps, sags or holes shall be present in the filters and all exhaust must be discharged into the atmosphere. Spray Booths or enclosures utilizing a water curtain, waterfall or other means to capture particulates in a liquid medium shall effectively remove at least 92% of the overspray and be operated in a manner consistent with the manufacturer's specifications to achieve such efficiency for the type of material being sprayed.

- 2. Exemptions

[315 §302]

The controls required in Section V.B.1 above shall not apply if any of the following are applicable:

- a. To the spray coating of buildings or dwellings, including appurtenances and any other ornamental objects that are not normally removed prior to coating.
- b. To the spray coating of facility equipment or structures which are fixed in a permanent location and cannot easily be moved into an enclosure or spray booth and which are not normally dismantled or moved prior to coating.
- c. To the spray coating of objects which cannot fit inside of an enclosure with internal dimensions of 10'W x 25'L x 8'H.
- d. To enclosures and spray booths and exhausts located entirely in a completely enclosed building, providing that any vents or openings do not allow overspray to be emitted into the outside air.
- e. To any coating operations utilizing only hand-held aerosol cans.

- 3. Permit Shield

Compliance with the conditions of this Section shall be deemed compliance with Maricopa County Rule 315 §101, Maricopa County Rule 315 §301.1, Maricopa County Rule 315 §301.2 and Maricopa County Rule 315 §302.

[A.A.C. R18-2-325]

**AIR QUALITY CONTROL GENERAL PERMIT  
FOR CONCRETE BATCH PLANTS**

**ATTACHMENT “D”: ADDITIONAL REQUIREMENTS FOR SOURCES OPERATING  
IN PIMA COUNTY**

**I. GENERAL CONDITIONS**

While operating in Pima County the Permittee shall comply with the conditions set forth in this Attachment.

**II. CONCRETE BATCH PLANTS**

**A. Emission Limitations**

Fugitive emissions from concrete batch plants shall be controlled in accordance with P.C.C. §§ 17.16.070 through P.C.C. §§ 17.16.110.

[P.C.C. §§ 17.16.380]

**B. Permit Shield**

Compliance with Condition III shall be deemed compliance with P.C.C. §§ 17.16.380

**III. FUGITIVE DUST REQUIREMENTS**

**A. Fugitive Dust Producing Activities**

[P.C.C. §§ 17.16.060]

1. The Permittee shall control windblown dust, dust from haul roads, and dust emitted from land clearing, earthmoving, demolition, trenching, blasting, road construction, mining, racing event, and other activities, as applicable.
2. Until the area becomes permanently stabilized by paving, landscaping or otherwise, dust emissions shall be controlled by applying adequate amounts of water, chemical stabilizer, or other effective dust suppressant.
3. The Permittee shall not leave land in such a state that fugitive dust emissions (including windblown dust or dust caused by vehicular traffic on the area) would violate this permit. (Ord. 1994-83 § 50, 1994; Ord. 1993-128 § 4, 1993; Ord. 1979-93 (part), 1979)

**B. Vacant Lots and Open Spaces**

[P.C.C. §§ 17.16.080]

1. The Permittee shall minimize dust emissions from the construction, use, alteration, repair, demolition, clearing, leveling, or excavation of any vacant lot, parking area, housing plot, building site, sales lot, playground, livestock feedlot, or other open area, other than those solely used for soil-cultivation or vegetative crop-producing and harvesting agricultural purposes, by intermittently applying water or other effective dust suppressants to the area, paving, detouring, barring access, or other equivalently effective controls.

1. No vacant lot, housing plot, building site, parking area, sales lot, playground, livestock feedlot, or other open area - other than those used solely for soil-cultivation or vegetative crop-producing and harvesting agricultural purposes - shall be left in such a state after construction, alteration, clearing, leveling, or excavation that naturally induced wind blowing over the area causes visible emissions of airborne dust to diffuse beyond the property lines within which the emissions become airborne. Dust emissions must be permanently suppressed by landscaping, covering with gravel or vegetation, paving, or applying equivalently effective controls.
2. This Section shall not apply when wind speeds exceed twenty-five miles per hour (as recorded by the National Weather Service or as estimated by an enforcement officer using the Beaufort Scale of Wind Speed Equivalents) unless control measures have not been taken or were not commensurate with the size or scope of the sources of dust.

**C. Roads and Streets**

[P.C.C. §§ 17.16.090]

1. Dust emissions from the construction phase of a new road must be minimized by applying the same measures specified in Condition III.A of Attachment "D".
2. No new unpaved private driveway shall be constructed unless the road will not be used by more vehicular traffic than that associated with a one - or two-family private residence, and the road will not be adjacent to any recreational, institutional, educational, or retail sales facility.
3. No new unpaved service road or unpaved haul road shall be constructed unless dust will be suppressed after construction by intermittently watering, limiting access, or applying chemical dust suppressants to the road, in such a way that visible dust emissions caused by vehicular traffic on the road do not violate section 17.16.050.
4. No new road other than a private driveway shall be constructed unless the paving specifications are those defined by, or equivalent to those of, the planning department and/or highway department of the jurisdictional agency.
5. The surfacing of roadways with asbestos tailings is prohibited.

**D. Particulate Materials**

[P.C.C. §§ 17.16.100]

1. No person shall cause, suffer, allow or permit crushing, screening, handling, transporting or conveying of materials or other operations likely to result in significant amounts of airborne dust without taking reasonable precautions, such as the use of spray bars, wetting agents, dust suppressants, covering the load, and hoods to prevent excessive amounts of particulate matter from becoming airborne.
2. Dust emissions from construction activity shall be effectively controlled by applying adequate amounts of water or other equivalently effective dust controls.
3. Dust emissions from the transportation of materials shall be effectively controlled

by covering stock loads in open-bodied trucks, limiting vehicular speeds, or other equivalently effective controls.

4. Emissions from a sandblasting or other abrasive blasting operation shall be effectively controlled by applying water to suppress visible emissions (wet blasting), enclosing the operation, or use of other equivalently effective controls.

**E. Fugitive dust emissions standards for motor vehicle operation**

[P.C.C. §§ 17.16.070]

1. No person shall cause, suffer, allow, or permit a vacant lot, or an urban or suburban open area, to be driven over or used by motor vehicles, trucks, cars, cycles, bikes, or buggies, or by animals such as horses, without taking reasonable precautions to limit excessive amounts of particulates from becoming airborne. Dust shall be kept to a minimum by using an approved dust suppressant, or adhesive soil stabilizer, or by paving, or by barring access to the property, or by other acceptable means.
2. No person shall operate a motor vehicle for recreational purposes in a dry wash, riverbed or open area in such a way as to cause or contribute to excessive amounts of particulate matter from becoming airborne into a residential, recreational, institutional educational, retail sales, hotel or business premises.
3. Any person found to be in violation of this section shall be guilty of an offense as provided under A.R.S. 49-502.
4. In accordance with the provisions of A.R.S. 49-502, peace officers are authorized to issue a notice to appear for any violation of this section. In lieu of issuing a notice to appear, peace officers may file a violation report with the control officer, requesting him to file a complaint alleging a violation of this section pursuant to A.R.S. 49-502. (Ord. 1995-87 § 42, 1995: Ord. 1993-128 § 4 (part), 1993)

**F. Permit Shield**

Compliance with Condition IV shall be deemed compliance with P.C.C. §§ 17.16.060, P.C.C. §§ 17.16.070, P.C.C. §§ 17.16.080, P.C.C. §§ 17.16.090, and P.C.C. §§ 17.16.100.

**IV. OTHER SPECIFIC REQUIREMENTS**

**A. Fuel Requirements**

[P.C.C. §§ 17.16.010.C]

The Permittee of any portable or stationary equipment which burns any material, except natural gas, shall keep complete records of the materials used as fuel.

**B. Opacity Limitations**

1. The Permittee shall not cause or permit the effluent from a single emission point, multiple emission point, or fugitive emissions source to have an average optical density equal to or greater than the opacity limiting standards specified in Table 4 at the end of this Condition, or as otherwise specified in this permit, subject to

the following provisions:

[P.C.C. §§ 17.16.040]

- a. Opacities (optical densities), as measured in accordance with Method 9, of an effluent shall be measured by a certified visible emissions evaluator with his natural eyes, approximately following the procedures which were used during his certification, or by an approved and precisely calibrated in-stack monitoring instrument.
  - b. A violation of an opacity standard shall be determined by measuring and recording a set of consecutive, instantaneous opacities, and calculating the arithmetic average of the measurements within the set unless otherwise noted herein. The measurements shall be made at approximately fifteen-second intervals for a period of at least six minutes, and the number of required measurements shall be as specified in Table 2 of this Section. Sets need not be consecutive in time, and in no case shall two sets overlap. If the average opacity of the set of instantaneous measurements exceeds the maximum allowed by any rule, this shall constitute a violation.
  - c. The use of air or other gaseous diluents solely for the purpose of achieving compliance with an opacity standard is prohibited.
  - d. When the presence of uncombined water is the only reason for failure of a source to otherwise meet the requirements of this article, this article shall not apply.
2. Except for sources located within the boundaries of the Tohono O'Odham, Pasqua-Yaqui, and San Xavier Indian Reservations, opacity of an emission from any non-point source, as measured in accordance with the Arizona Testing manual, Reference Method 9, shall not exceed the following:
- [P.C.C. §§ 17.16.050.B]
- a. 20 percent for such non-point sources in Eastern Pima County, east of the eastern boundary of the Tohono O'Odham Reservations.
  - b. 40 percent for such non-point sources in all other areas of Pima County.

**TABLE 2: EMISSIONS-DISCHARGE OPACITY LIMITING STANDARDS**

Type of Source	Instantaneous Opacity Measurements			Maximum Allowable Average Opacity, %
	Required No. (For a Set)	Excluded No. (Highest Values)	No. to Use For Averaging	
Cold Diesel Engines <sup>1</sup>	25	0	25	60
Loaded Diesel Engines <sup>2</sup>	26	1	25	60
Other Sources <sup>3</sup>	25	0	25	20

<sup>1</sup> Applicable to the first 10 consecutive minutes after starting up a diesel engine.

<sup>2</sup> Applicable to a diesel engine being accelerated under load.

<sup>3</sup> Any source not otherwise specifically covered within this table.

(Ord. 1993-128 4, 1993; Ord. 1979-93 (part), 1979)

**C. Visibility Limiting Standard**

[Pima County Applicable SIP Rule 343 and P.C.C. §§ 17.16.050]

1. The Permittee shall not cause or permit the airborne diffusion of visible emissions, including fugitive dust, beyond the property boundary line within which the emissions became airborne.
  - a. In actual practice, the airborne diffusion of visible emissions across property lines shall be prevented by appropriately controlling the emissions at the point of discharge, or ceasing entirely the activity or operation which is causing or contributing to the emissions.
  - b. Condition IV.C.1 above shall not apply when the naturally induced wind speed exceeds 25 miles per hour as estimated by a certified visible emission evaluator using the Beaufort Scale of Wind-Speed Equivalents, or as recorded by a U.S. Weather Bureau Section or a U.S. Government military installation.
  - c. The exception in Condition IV.C.1.b above shall not apply to the demolition, destruction, transport, or pulverization of structures containing friable asbestos materials, and all dust producing activities associated with such sources shall be halted when the wind is causing or contributing visible emissions to cross beyond the property lines within which the emissions discharge.
  - d. Any disregard of, neglect of, or inattention to other controls required herein, during any time when Condition IV.C.1.b above, is in effect, shall automatically waive the exception in Condition IV.C.1.b above, and such relaxation of controls shall be a violation.

**D. Permit Shield**

Compliance with Conditions of this Section shall be deemed compliance with .C.C. § 17.16.010, P.C.C. § 17.16.040, P.C.C. § 17.16.050 and SIP Rule 343.

[A.A.C. R18-2-325]

**AIR QUALITY CONTROL GENERAL PERMIT  
FOR CONCRETE BATCH PLANTS**

**ATTACHMENT “E”: ADDITIONAL REQUIREMENTS FOR SOURCES OPERATING  
IN PINAL COUNTY**

**I. GENERAL CONDITIONS**

While operating in Pinal County the Permittee shall comply with the Conditions set forth in this Attachment.

**A. Crushing and Screening Requirements**

1. Applicability

The provisions of this article are applicable to the following affected facilities: primary rock crushers, secondary rock crushers, tertiary rock crushers, screens, conveyors and conveyor transfer points, stackers, reclaimers, and all gravel or crushed stone processing plants and rock storage piles. [Pinal Code §5-5-180]

2. Particulate Matter Emissions

a. Emission Limitation and Standards

Fugitive emissions from gravel or crushed stone processing plants shall be controlled in accordance with Chapter 4, Article 2 of the Pinal County Rules. [Pinal Code §5-5-190.D]

b. Permit Shield

Compliance with the conditions of this Section shall be deemed compliance with Pinal Code § 5-5-190.A, Pinal Code § 5-5-190.C, Pinal Code § 5-5-190.D, Pinal Code § 5-5-200.A and Pinal Code § 5-5-200.B.

**B. Fugitive Dust Emissions Requirements**

**Particulate Matter Emissions**

1. Emission Limitations and Standards

[Pinal County Code 4-2-040]

a. The Permittee shall not cause, suffer, allow, or permit a building or its appurtenances, subdivision-site, driveway, parking area, vacant lot or sales lot, or an urban or suburban open area to be constructed, used, altered, repaired, demolished, cleared, or leveled, or the earth to be moved or excavated, or fill dirt to be deposited, without taking reasonable precautions to effectively prevent fugitive dust from becoming airborne.

b. The Permittee shall not disturb or remove soil or natural cover from any area without taking reasonable precautions to effectively prevent fugitive dust from becoming airborne.

c. The Permittee shall implement the following control measures for blasting operations at a facility:

(1) In wind gusts above 25 miles per hour, discontinue/cease explosive blasting; and

(2) Pre-water and maintain surface soils in a stabilized condition where support equipment and vehicles will operate.

[Pinal County Code 4-7-230.N]

2. Monitoring and Record Keeping Requirements

[Pinal County Code 4-2-050]

a. Opacity observations shall not be made or additional preventive measures required when the wind speed instantaneously exceeds 25 mph or when the average wind speed is greater than 15 mph.

b. The average wind speed determination shall be on a 60 minute average from the nearest Air Quality Control District monitoring station or by a wind instrument located at the site being monitored.

3. Permit Shield

[A.A.C. R18-2-325]

Compliance with the conditions of this Part and the conditions of Attachment "B" shall be deemed compliance with Pinal County Code 4-2-040 and 4-2-050.

**AIR QUALITY CONTROL GENERAL PERMIT  
FOR CONCRETE BATCH PLANTS**

**APPENDIX "A": MAP OF THE PINAL COUNTY PROHIBITED AREA**

# AIR QUALITY CONTROL GENERAL PERMIT FOR CONCRETE BATCH PLANTS

## APPENDIX "B": MAP OF THE SANTA CRUZ LIMITED COVERAGE AREA

