ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY
Air Quality Division
1110 West Washington Street • Phoenix, AZ 85007 • Phone: (602) 771-2338

AIR QUALITY CONTROL
GENERAL PERMIT
FOR
CRUSHING AND SCREENING 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 “G”

ADEQ GENERAL PERMIT NUMBER 102 PERMIT CLASS II EXPIRATION DATE April 21, 2027

PERMIT ISSUED THIS 22nd DAY OF April, 2022

Daniel Czecholinski, Director, Air Quality Division
SIGNATURE TITLE
This page left blank intentionally
I. INTRODUCTION

A. This document is a General Permit for portable and stationary Crushing and Screening Plants, authorized under Arizona Administrative Code (A.A.C.) R18-2-501 through 511 and Arizona Revised Statutes (A.R.S.) §49-426. Owners/operators of crushing and screening plants for non-metallic minerals as defined in 40 CFR 60.671 may obtain coverage under this general permit in lieu of an individual permit. Such parties shall do so by obtaining a General Permit for Crushing and Screening Plants which will include an Authorization to Operate (ATO) for significant pieces of equipment.

B. This general permit covers crushing and screening plants and concrete batch plants that are subject to state or county regulations. If the concrete batch plant is moved and is not with the permitted crushing and screening plant, the concrete batch plant will require a separate permit.

C. Eligibility

Production limitations for crushing and screening plants along with concrete batch plants have been established based on modeling analysis. Facilities which can comply with the following limitations are eligible for this General Permit:

<table>
<thead>
<tr>
<th>Facility</th>
<th>Maximum Daily Operation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>PM$_{10}$ Attainment Area</td>
</tr>
<tr>
<td>Stand-alone crushing and screening plant</td>
<td>5,000 tons per day</td>
</tr>
<tr>
<td>Crushing and Screening Plant with Concrete Batch Plant</td>
<td>C&amp;S: 5,000 tons per day</td>
</tr>
<tr>
<td></td>
<td>CBP: 1,275 yd$^3$ per day</td>
</tr>
</tbody>
</table>

Concrete batch plants with truck mix loading operations are required to operate a baghouse to control emissions at the product loading point to be eligible for this General Permit. Also, non-certified generators in Maricopa County shall be limited to combined brake horsepower of 750 HP.

D. This General Permit does not apply to sources that require a Class I permit.

E. References to the “Director” in this General Permit mean the Director of the Air Quality Division of the Arizona Department of Environmental Quality (ADEQ). References to the “Department” mean ADEQ. For sources required to obtain a Permit from the Maricopa, Pima or Pinal County, references in this document to the “Department” mean the Air Quality Control agency for the respective county and references to the “Director” mean the...
Director of the respective agency except as otherwise indicated.

F. This General Permit applies to sources operating in all counties of Arizona.

II. ATTACHMENT APPLICABILITY

A. Attachments “A”, “B” are applicable to all facilities covered under this General Permit.

B. Attachment “C” is applicable to the crushing & screening plant.

C. Attachment “D” is applicable if the facility has a concrete batch plant.

D. If the facility is located in the Maricopa, Pima, or Pinal County, Attachments “E”, “F”, or “G” respectively are also applicable in addition to the above attachments.
# Table of Contents

I. INTRODUCTION .................................................................................................................. 3

II. ATTACHMENT APPLICABILITY ....................................................................................... 4

ATTACHMENT “A”: GENERAL PROVISIONS ........................................................................ 7

I. GENERAL PERMIT EXPIRATION AND RENEWAL ............................................................... 7

II. COMPLIANCE WITH PERMIT CONDITIONS ..................................................................... 7

III. GENERAL PERMIT REOPENINGS, REVOCATION AND REISSUANCE, OR TERMINATION FOR CAUSE .................................................................................................................. 7

IV. POSTING OF GENERAL PERMIT ....................................................................................... 8

V. FEE PAYMENT ...................................................................................................................... 9

VI. ANNUAL EMISSION INVENTORY QUESTIONNAIRE ............................................................ 9

VII. CERTIFICATION OF TRUTH, ACCURACY AND COMPLETENESS .................................. 10

IX. INSPECTION AND ENTRY .................................................................................................. 10

X. PERMIT REVISION PURSUANT TO FEDERAL HAZARDOUS AIR POLLUTANT STANDARD .............................................................................................................................. 10

XI. ACCIDENTAL RELEASE PROGRAM .................................................................................. 11

XII. EXCESS EMISSIONS, PERMIT DEVIATIONS, AND EMERGENCY REPORTING .............. 11

XIII. RECORD KEEPING REQUIREMENTS .............................................................................. 16

XIV. REPORTING REQUIREMENTS .......................................................................................... 17

XV. DUTY TO PROVIDE INFORMATION ................................................................................ 17

XVI. CHANGES TO FACILITIES GRANTED COVERAGE UNDER GENERAL PERMITS ............... 17

XVII. TESTING REQUIREMENTS ............................................................................................. 18

XVIII. PROPERTY RIGHTS ....................................................................................................... 20

XIX. SEVERABILITY CLAUSE .................................................................................................. 21

XX. PERMIT SHIELD ............................................................................................................... 21

XXI. PROTECTION OF STRATOSPHERIC OZONE .................................................................... 21

XXII. APPLICABILITY OF NSPS/NEHAP GENERAL PROVISIONS .......................................... 21

XXIII. CONDITIONS SPECIFIC TO PORTABLE SOURCES ...................................................... 21

ATTACHMENT “B”: FACILITYWIDE REQUIREMENTS .......................................................... 23

I. RELATIONSHIP OF PERMIT TO APPLICABLE STATE IMPLEMENTATION PLAN FOR NEW OR MODIFIED SOURCES .......................................................................................... 23

II. CONDITIONS FOR COVERAGE .......................................................................................... 23

III. FACILITY WIDE REQUIREMENTS .................................................................................... 23

IV. INTERNAL COMBUSTION ENGINE(S)-NON-NSPS ............................................................ 26

V. INTERNAL COMBUSTION ENGINE(S) SUBJECT TO NSPS SUBPART IIII ......................... 53

VI. INTERNAL COMBUSTION SPARK IGNITION ENGINES SUBJECT TO 40 CFR 60 SUBPART JJJJ ................................................................................................................................. 70

VII. FUGITIVE DUST REQUIREMENTS .................................................................................. 81

VIII. OTHER PERIODIC ACTIVITIES ....................................................................................... 83

ATTACHMENT “C”: SPECIFIC CONDITIONS FOR CRUSHING AND SCREENING PLANTS ..... 87

I. CRUSHING AND SCREENING OPERATIONS SUBJECT TO NEW SOURCE PERFORMANCE STANDARDS (NSPS) .............................................................................................................. 87

II. CRUSHING AND SCREENING OPERATIONS SUBJECT TO EXISTING SOURCE REQUIREMENTS ................................................................................................................................. 96

ATTACHMENT "D": SPECIFIC CONDITIONS FOR CONCRETE BATCH PLANTS ................. 100

I. APPLICABILITY .................................................................................................................... 100

II. CONCRETE BATCH PLANT REQUIREMENTS .................................................................... 100

III. WASH PLANT REQUIREMENTS ......................................................................................... 102

IV. REQUIREMENTS FOR BOILERS ......................................................................................... 103
V. DIRECT-FIRED FUEL BURNING EQUIPMENT ................................................................. 109
ATTACHMENT "E": ADDITIONAL CONDITIONS FOR OPERATIONS INSIDE MARICOPA COUNTY .......................................................... 111
   I. APPLICABILITY ........................................................................................................... 111
   II. FACILITY WIDE LIMITATION .................................................................................... 111
   III. CRUSHING AND SCREENING PLANT REQUIREMENTS ........................................... 115
   IV. CONCRETE BATCH PLANT REQUIREMENTS ......................................................... 121
   V. INTERNAL COMBUSTION ENGINES ........................................................................ 122
   VI. FUGITIVE DUST REQUIREMENTS .......................................................................... 132
   VII. OTHER PERIODIC ACTIVITY REQUIREMENTS ..................................................... 152
ATTACHMENT "F": ADDITIONAL REQUIREMENTS FOR SOURCES OPERATING IN PIMA COUNTY ............................................................... 159
ATTACHMENT "G": ADDITIONAL REQUIREMENTS FOR SOURCES OPERATING IN PINAL COUNTY ............................................................... 166
   I. APPLICABILITY ........................................................................................................... 166
   II. FACILITY WIDE REQUIREMENTS ............................................................................ 166
   III. FUGITIVE EMISSIONS REQUIREMENTS ............................................................... 166
APPENDIX A: OPAQUE SURVEY RECORDKEEPING FORM ........................................... 170
APPENDIX B: MAP OF THE PINAL COUNTY PROHIBITED AREA .................................. 171
ATTACHMENT “A”: GENERAL PROVISIONS

I. GENERAL PERMIT EXPIRATION AND RENEWAL


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 (ATO) 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 to all the Permittees who have been granted, or who have applications pending for 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 Arizona Revised Statutes (A.R.S.) Title 49, Chapter 3, and the air quality rules under Title 18, Chapter 2 of the Arizona Administrative Code. Any permit noncompliance is grounds for enforcement action; for permit termination, revocation and reissuance, or revision; or for denial of a permit renewal application. In addition, noncompliance with any federally enforceable requirement constitutes a violation of the Clean Air Act.

[B.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 permit.

[B.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;

[B.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;

[B.A.C. R18-510.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; or

[B.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.


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:

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

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.

[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. Any person who has been granted coverage under this General Permit shall post such General Permit or a certificate of General Permit coverage on location where the equipment is installed in such a manner as to be clearly visible and accessible.

B. Equipment Labels
All equipment covered by this General Permit shall be clearly marked with one of the following:

1. The current permit number,
2. A serial number or other equipment number that is also listed in the permit application.

C. 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.

D. 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.

E. A copy of the complete General Permit and associated ATO 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. R18-2-511]

VI. ANNUAL EMISSION INVENTORY QUESTIONNAIRE

A. The Permittee shall complete and submit to the Director an emissions inventory questionnaire no later than June 1 every three years beginning June 1, 2021. At the Director’s request, the Permittee may be required to complete and submit emissions inventory questionnaires in addition to the triennial emissions inventory questionnaire. The Director shall notify the Permittee in writing of the decision to require additional emissions inventory questionnaires.

[B.A.C. R18-2-327.A.1.b]

B. The emissions inventory questionnaire shall be on an electronic or paper form provided by the Director and shall include the information required by A.A.C. R18-2-327.A.3 for the previous calendar year.

[A.A.C. R18-2-327.A.3]

VII. COMPLIANCE CERTIFICATION

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. A compliance certification submitted by the Permittee of a stationary source covered by a general permit shall be on a form provided by the Director and shall include the following information:

[A.A.C. R18-2-514.A]

1. The source’s name, mailing address, contact person and contact person phone number, permit number, compliance reporting period, and physical address and location, if different than the mailing address.

2. A certification of truth, accuracy, and completeness signed by the facility’s responsible officer.
3. Process information for the source, including design capacity, operations schedule, hours of operation, and total production.

4. Method of documenting compliance and the status of compliance with all recordkeeping, reporting, monitoring, and testing requirements and all emission limitations and standards imposed in the permit.

B. The Permittee shall complete and submit all compliance certifications through the ADEQ web portal (myDEQ).

[C.A.A. R18-2-514.B]

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

[C.A.A. R18-2-309.5.d]

VIII. CERTIFICATION OF TRUTH, ACCURACY AND COMPLETENESS

Any document required to be submitted by this 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.

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

IX. INSPECTION AND ENTRY

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

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

A. Enter upon the Permittee’s premises where a source is located or emissions-related activity is conducted, or where records are required to be kept under the conditions of this General Permit;

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

B. Have access to and copy, at reasonable times, any records that must be kept under conditions of this General Permit;

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

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;

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

D. Sample or monitor, at reasonable times, substances or parameters at any location for the purpose of assuring compliance with this General Permit or other applicable requirements; and

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

E. Record any inspection by use of written, electronic, magnetic and photographic media.

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

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.D.3]

XI. ACCIDENTAL RELEASE PROGRAM

If a source which has been granted coverage under this General Permit 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.

[40 CFR Part 68]

XII. EXCESS EMISSIONS, PERMIT DEVIATIONS, AND EMERGENCY REPORTING

A. Excess Emissions Reporting

[A.A.C. R18-2-310.01.A, B, and C]

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:

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

      (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 X.A.1.b.

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

   b. The report shall contain the following information:

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

      [A.A.C. R18-2-310.01.B.1]

      (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;

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

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

      [A.A.C. R18-2-310.01.B.3]

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

      [A.A.C. R18-2-310.01.B.4]

      (5) Nature and cause of such emissions;
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

Steps taken to limit the excess emissions; and

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 governing source operation during periods of startup or malfunction.

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 X.A.1 above.

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. Where the applicable requirements contain a definition of prompt or otherwise specifies a timeframe for reporting deviations, that definition or time frame shall govern. Where the applicable requirement does not address the timeframe for reporting deviations, the Permittee shall submit reports of deviations in compliance with the following schedule:

1. Notice that complies with Condition XII.A above is prompt for deviations that constitute excess emissions;

2. Notice regarding malfunctions or breakdowns of pollution control equipment or emissions monitoring systems that are submitted within two working days of discovery shall be considered prompt.

3. Except as provided in Conditions XII.B.1 and XII.B.2, notice that complies with A.A.C. R18-306.A.5 is prompt for all other types of deviation and shall be reported annually, concurrent with the annual compliance certification in Section VII, and can be submitted via myDEQ, the Arizona Department of Environmental Quality’s online portal.

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.

[A.A.C. R18-2-306.E.1]

2. An emergency constitutes an affirmative defense to an action brought for noncompliance with technology-based emission limitations if Condition XII.C.3 is met.

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

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;

[A.A.C. R18-2-306.E.3.a]

b. The permitted facility was being properly operated at the time;

[A.A.C. R18-2-306.E.3.b]

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

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

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.

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

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.

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

D. Affirmative Defenses for Excess Emissions Due to Malfunctions, Startup, and Shutdown

1. Applicability

A.A.C. R18-2-310 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;  
[A.A.C. R18-2-310.A.1]

b. Promulgated pursuant to Titles IV or VI of the Clean Air Act;  
[A.A.C. R18-2-310.A.2]

c. Contained in any Prevention of Significant Deterioration (PSD) or New Source Review (NSR) permit issued by the U.S. EPA;  
[A.A.C. R18-2-310.A.3]

d. Contained in A.A.C. R18-2-715.F; or  
[A.A.C. R18-2-310.A.4]

e. Included in a permit to meet the requirements of A.A.C. R18-2-406.A.5.  
[A.A.C. R18-2-310.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.A.C. R18-2-310.B]

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;  
[A.A.C. R18-2-310.B.1]

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

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;  
[A.A.C. R18-2-310.B.3]

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;  
[A.A.C. R18-2-310.B.4]

e. All reasonable steps were taken to minimize the impact of the excess emissions on ambient air quality;  
[A.A.C. R18-2-310.B.5]

f. The excess emissions were not part of a recurring pattern indicative of
inadequate design, operation, or maintenance;  

[A.A.C. R18-2-310.B.6]

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;  

[A.A.C. R18-2-310.B.7]

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;  

[A.A.C. R18-2-310.B.8]

i. All emissions monitoring systems were kept in operation if at all practicable; and  

[A.A.C. R18-2-310.B.9]

j. The Permittee's actions in response to the excess emissions were documented by contemporaneous records.  

[A.A.C. R18-2-310.B.10]

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:  

[A.A.C. R18-2-310.C.1]

(1) The excess emissions could not have been prevented through careful and prudent planning and design;  

[A.A.C. R18-2-310.C.1.a]

(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;  

[A.A.C. R18-2-310.C.1.b]

(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;  

[A.A.C. R18-2-310.C.1.c]

(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;  
[A.A.C. R18-2-310.C.1.d]

(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;  
[A.A.C. R18-2-310.C.1.e]

(7) All emissions monitoring systems were kept in operation if at all practicable; and  
[A.A.C. R18-2-310.C.1.f]

(8) Contemporaneous records documented the Permittee’s actions in response to the excess emissions.  
[A.A.C. R18-2-310.C.1.h]

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

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

5. Demonstration of Reasonable and Practicable Measures

For an affirmative defense under Condition XII.E.2 or XII.E.3, the Permittee shall demonstrate, through submission of the data and information required by this Condition X.E and Condition 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.  
[A.A.C. R18-2-310.E]

XIII. RECORD KEEPING REQUIREMENTS

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;  
[A.A.C. R18-2-306.A.4.a.i]

2. The date(s) analyses were performed;  
[A.A.C. R18-2-306.A.4.a.ii]

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 as 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 five (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 this Attachment.

B. Excess emission; permit deviation, and emergency reports in accordance with Section XII above.

C. Other reports required by any conditions of other Attachments.

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 permit, or to determine compliance with the permit. Upon request, the Permittee shall also furnish to the Director copies of records required to be kept by the permit. For information claimed to be confidential, the Permittee shall furnish an additional copy of such records directly to the Administrator along with a claim of confidentiality.

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

XVI. CHANGES TO FACILITIES GRANTED COVERAGE UNDER GENERAL PERMITS

A. Facility Changes that Require New Authorization to Operate.
The following changes at a source that has been granted coverage under a general permit shall be made only after the source requests new authorization to operate from the Director:

[A.A.C. R18-2-512.B]

1. Adding new emissions units that require new authorization to operate,
2. Installing replacement emissions units that require authorization to operate.

B. Facility Changes that Do Not Require Authorization to Operate.

The following changes at a source that has been granted coverage under a general permit shall be made only after the source provides written notification to the Department:

[A.A.C. R18-2-512.C]

1. Adding new emissions units that do not require authorization to operate,
2. Installing a replacement emissions unit with a higher capacity that does not require authorization to operate,
3. Adding or replacing air pollution control equipment.

C. A source that has been granted coverage under a general permit shall keep a record of any physical change or change in the method of operation that could affect emissions. The record shall include a description of the change and the date the change occurred.

[A.A.C. R18-2-512.D]

D. For sources that submit a request or notification under Conditions XVI.A and B, the applicant shall provide information identifying and describing the source, its processes, and operating conditions in sufficient detail to allow the Director to determine continued qualification for, and to assure compliance with, the general permit. The Director shall act on a request for new authority to operate under a general permit as expeditiously as possible. The source may operate under the terms of the applicable general permit during that time.

[A.A.C. R18-2-512.E]

XVII. TESTING REQUIREMENTS

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

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

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.

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

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 working days prior to performing a test, the Permittee shall submit a test plan to the Director, which must include the following, in addition to all other applicable requirements, as identified in the Arizona Testing Manual:

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

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

E. Stack Sampling Facilities

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

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

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, must be submitted.


G. Report of Final Test Results
A written report of the results of performance tests conducted pursuant to 40 CFR 63, shall be submitted to the Director within 60 days after the test is performed. A written report of the results of all other performance tests shall be submitted within 4 weeks after the test is performed, or as otherwise provided in the Arizona Testing Manual. All performance testing reports shall be submitted in accordance with the Arizona Testing Manual and A.A.C. R18-2-312.A.

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

H. Extension of Performance Test Deadline

For performance testing required under Condition XVII.A above, the Permittee may request an extension to a performance test deadline due to a force majeure event as follows:

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

1. If a force majeure event is about to occur, occurs, or has occurred for which the Permittee intends to assert a claim of force majeure, the Permittee shall notify the Director in writing as soon as practicable following the date the Permittee first knew, or through due diligence should have known that the event may cause or caused a delay in testing beyond the regulatory deadline. The notification must occur before the performance test deadline unless the initial force majeure or a subsequent force majeure event delays the notice, and in such cases, the notification shall be given as soon as practicable.

[A.A.C. R18-2-312.J.1]

2. The Permittee shall provide to the Director a written description of the force majeure event and a rationale for attributing the delay in testing beyond the regulatory deadline to the force majeure; describe the measures taken or to be taken to minimize the delay; and identify a date by which the Permittee proposes to conduct the performance test. The performance test shall be conducted as soon as practicable after the force majeure event occurs.

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

3. The decision as to whether or not to grant an extension to the performance test deadline is solely within the discretion of the Director. The Director shall notify the Permittee in writing of approval or disapproval of the request for an extension as soon as practicable.

[A.A.C. R18-2-312.J.3]

4. Until an extension of the performance test deadline has been approved by the Director under Conditions XVII.H.1, 2, and 3 above, the Permittee remains subject to the requirements of Section XVII.

[A.A.C. R18-2-312.J.4]

5. For purposes of this Section XVII, a “force majeure event” means an event that will be or has been caused by circumstances beyond the control of the Permittee, its contractors, or any entity controlled by the Permittee that prevents it from complying with the regulatory requirement to conduct performance tests within the specified timeframe despite the Permittee's best efforts to fulfill the obligation. Examples of such events are acts of nature, acts of war or terrorism, or equipment failure or safety hazard beyond the control of the Permittee.

[A.A.C. R18-2-312.J.5]

XVIII. 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]

XIX. 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]

XX. 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 identified in the portions of this permit subtitled “Permit Shield”. The permit shield shall not apply to any facility changes without a permit revision pursuant to Condition XVI of this Attachment.

[A.A.C. R18-2-317.F, - 320, and -325]

XXI. 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]

XXII. APPLICABILITY OF NSPS/NESHAP GENERAL PROVISIONS

For all equipment subject to a New Source Performance Standard or a National Emission Standard for Hazardous Air Pollutants, 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 Subpart A and Part 63 Subpart A]

XXIII. CONDITIONS SPECIFIC TO PORTABLE SOURCES

A. This Section applies to sources that have been granted coverage under a general permit that allows for the operation of a source at more than one location.

[A.A.C. R18-2-513.A]

B. The Permittee that hold multiple coverages under the same general permit shall have separate coverage under the general permit for each location at which each portable source operates.

[A.A.C. R18-2-513.C.1]

C. The Permittee shall use the myDEQ web portal to obtain authorizations to operate for each location at which the equipment will operate.

[A.A.C. R18-2-513.C.3]

D. 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. A portable source that has been granted coverage under a general permit that subsequently obtains a county permit shall request that the Director terminate the coverage under the general permit. Upon issuance of the county permit, the coverage under the general permit issued by the Director is no longer valid.

[A.A.C. R18-2-513.D]
E. A portable source which has a county permit but proposes to operate outside that county may obtain coverage under a general permit from the Director. A portable source that has a permit issued by a county and obtains coverage under a general permit issued by the Director shall request that the county terminate the permit. Upon issuance of coverage under a general permit by the Director, the county permit is no longer valid. Before commencing operation in the new county, the source shall notify the Director and the control officer who has jurisdiction in the county that includes the new location according to Condition XXI.F.

[A.A.C. R18-2-513.E]

F. A portable source granted coverage under a general permit may be transferred from one location to another provided that the Permittee 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 notification shall include:

[A.A.C. R18-2-513.F]

1. A description of the equipment to be transferred including the 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 new location;
4. The date on which the new location is to be moved;
5. The date on which operation of the equipment will begin at the new location;
6. A complete list of all equipment requiring authorization to operate that may 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 portable source has coverage.
ATTACHMENT “B”: FACILITYWIDE REQUIREMENTS

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

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. CONDITIONS FOR COVERAGE

A. This General Permit covers sources which meet the requirements as specified in the general permit application for Crushing and Screening Plants.

B. The Permittee shall not operate the equipment covered under this permit with any other concrete batch plant, or crushing & screening plant not covered by this permit if they meet the definition of a stationary source under A.A.C. R18-2-101.140.

C. The Permittee shall conduct permitting services and transactions, including move notices, electronically through the myDEQ online portal.

III. FACILITY WIDE REQUIREMENTS

A. Operational Limitations

1. PM$_{10}$ Attainment Area Throughput Limitations

   a. The Permittee shall not operate the crushing and screening plant such that the throughput exceeds 5,000 tons per day (tpd).

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

   [Material permit conditions are indicated by underline and italics]

   b. The Permittee shall not operate the co-located concrete batch plant such that the throughput exceeds 1,275 cubic yards per day (yd$^3$/day).

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

   [Material permit conditions are indicated by underline and italics]

2. PM$_{10}$ Nonattainment Area Throughput Limitations

   a. The Permittee shall not operate the crushing and screening plant equipment such that the throughput exceeds 4,000 tons per day (tpd).

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

   [Material permit conditions are indicated by underline and italics]

   b. The Permittee shall not operate the concrete batch plant equipment such that the throughput exceeds 1,000 cubic yards per day (yd$^3$/day).

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

3. The Permittee shall not operate a co-located concrete batch plant with a truck mix product loading operation without operating a baghouse to control emissions at the product loading point.

   [A.A.C. R18-2-306.01 and -331.A.3.a]
4. **The Permittee shall not operate the equipment identified in the ATO for more than the number of annual hours limit specified in the ATO.**

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

5. The Permittee shall operate and maintain all equipment in accordance with manufacturer’s specifications.

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

B. **Prohibited and Limited Coverage**

The Permittee shall not operate in areas of Pinal County identified as non-attainment for PM$_{2.5}$. The Prohibited Area can be found at [http://gisweb.azdeq.gov/arcgis/emaps/?topic=nonattain](http://gisweb.azdeq.gov/arcgis/emaps/?topic=nonattain) and filtering for PM$_{2.5}$ and in the map in Appendix B of this Permit.

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

C. **Operating Limitation for Engines in Maricopa County**

   *While operating in Maricopa County, the Permittee shall not operate non-certified engines that are cumulatively greater than 750 brake 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).*


D. **Opacity Monitoring Requirements**

1. **Monitoring Methods**

   a. **Instantaneous Surveys and Six-Minute Observations**

      Any instantaneous surveys and six-minute observations required by this permit shall be determined by either method listed in Conditions III.F.1.a(1) and (2) below.

      (1) **Alternative Method ALT-082 (Digital Camera Operating Technique)**

         (a) The Permittee, or Permittee representative, shall be certified in the use of Alternative Method ALT-082.

         (b) The results of all instantaneous surveys and six-minute observations shall be obtained within 30 minutes.

      [A.A.C. R18-2-311.b]

      (2) **EPA Reference Method 9**

      The Permittee shall have on site or on call a person certified in EPA Reference Method 9 unless all instantaneous visual surveys and six-minute observations required by this permit are conducted by Alternative Method ALT-082.
b. Any Method 9 required by this permit can be conducted by Alternative Method ALT-082.

2. Monitoring, Recordkeeping, and Reporting Requirements

a. At the frequency specified in future sections of this permit, the Permittee shall conduct an instantaneous survey of visible emissions from both process stack sources, when in operation, and fugitive dust sources.

b. If the plume on an instantaneous basis appears less than or equal to the applicable opacity standard, then the Permittee shall keep a record of the name of the observer, the date on which the instantaneous survey was made, and the results of the instantaneous survey.

c. If the plume on an instantaneous basis appears greater than the applicable opacity standard, then the Permittee shall immediately conduct a six-minute observation of the plume.

   (1) If the six-minute observation of the plume is less than or equal to the applicable opacity standard, then the Permittee shall record the name of the observer, the date on which the instantaneous survey was made, and the results of the instantaneous survey.

   (2) If the six-minute observation of the plume is greater than the applicable opacity standard, then the Permittee shall do the following:

       (a) Adjust or repair the controls or equipment to reduce opacity to less than or equal to the opacity standard;

       (b) Record the name of the observer, the date on which the six-minute observation was made, the results of the six-minute observation, and all corrective action taken; and

       (c) Report the event as an excess emission for opacity in accordance with Condition XII.A of Attachment “A”.

       (d) Conduct another six-minute observation to document the effectiveness of the adjustments or repairs completed.

E. Recordkeeping Requirements

1. The Permittee shall maintain records of the operating hours of the equipment covered under this General Permit which are subject to an hourly restriction. These records shall include the date, equipment identification or equipment type, the starting time and the stopping time. Operating hours for equipment that utilizes an hours meter does not have to be separately logged.
2. The Permittee shall maintain records of the total daily throughput of material, in tons per day, processed by the crushing and screening plant.

3. The Permittee shall maintain records of the total daily production of the concrete batch plant in cubic yards per day.

4. For monitoring and recording opacity observations, the Permittee may use format shown in the attached the “Opacity Survey Recordkeeping Form” in Appendix 1.

5. A logbook of the updated emission calculations and shall make it available to inspectors upon request.

6. Non-Road Engines

The Permittee shall keep a log of following information for each engine that meets the definition of a non-road engine in 40 CFR Part 98.

   a. Date that the engine is brought to the facility;
   b. Make, model, serial number and capacity of the engine; and
   c. Date that the engine is removed from the facility.

These records shall be made available upon request

IV. INTERNAL COMBUSTION ENGINE(S)-NON-NSPS

A. Applicability

The requirements under this Section are applicable to any existing engine not subject to New Source Performance Standards, 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:

   \[ E = 1.02 Q^{0.769} \]

   Where:

   \[ E = \text{the maximum allowable particulate emissions rate in pounds-mass per hour} \]

   \[ Q = \text{the heat input in million Btu per hour} \]

   b. For the purposes of the calculations required 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.
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 engines, when in operation, as per Condition III.F.


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.


3. Permit Shield

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


b. For diesel engines, the Permittee shall keep records of fuel supplier certifications or other documentation listing the sulfur content. These records shall be made available to ADEQ upon request.


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.I]
3. Permit Shield

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

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

D. Hazardous Air Pollutants

1. Applicability

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

[40 CFR 63.6580 and 63.6590]

b. A new or reconstructed stationary compression ignition (CI)/spark ignition (SI) engine (constructed after June 12, 2006) shall meet the requirements of 40 CFR 63 Subpart ZZZZ by meeting the requirements of 40 CFR 60 Subpart IIII or JJJJ in Section V or VI 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 60 Subpart IIII instead of the emission limitations and other requirements that would otherwise apply under this Section.

[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)(3)]

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

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

   (a) 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.

   [40 CFR 63.6625 (i) and (j), and Table 2d to 40 CFR 63 Subpart ZZZZ]

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

   (a) For diesel-fired engine, Total Base Number is less than 30 percent of the Total Base Number of the oil when new. 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;

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

   (c) Water Content: 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 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.

[c Table 2d to 40 CFR 63 Subpart ZZZZ]

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

[c Table 2d to 40 CFR 63 Subpart ZZZZ]

(3) 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 IV.D.3.a(2)(a) 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.

[c Table 2d to 40 CFR 63 Subpart ZZZZ]

(4) The Permittee shall operate the emergency engines according to the requirements in Conditions IV.D.3.a(4)(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. If the emergency engine is not operated in accordance with the requirements in Conditions 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 the purpose of maintenance checks and readiness testing for a maximum of 100 hours per calendar year 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 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 calendar year.

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

[40 CFR 63.6640(f)(4)]

(i) The 50 hours per year for non-emergency situations can be used to supply power as a 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 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.

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

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

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

[40 CFR 63.6625(f) and A.A.C, 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 Condition IV.D.3.a(4)(c)(i), the owner or operator must keep records of the notification of the emergency situation, and the date, start time, and end time of 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 Condition IV.D.3.a(4)(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 spent for operation for the purposes specified in Condition IV.D.3.a(4)(c)(i), including the date, start time, and end time for engine operation for the purposes specified in Condition IV.D.3.a(4)(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)]

(f) 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)]

(g) 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) (https://cdx.epa.gov). 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
75th 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 Table 2d to 40 CFR 63 Subpart ZZZZ]

(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 Table 2d to 40 CFR 63 Subpart ZZZZ]

(i) The Permittee shall at a minimum analyze the following three parameters: Total Base 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.

[Table 2d to 40 CFR 63 Subpart ZZZZ]

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

(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.

b. Operating Requirements for CI Engines > 300 HP

(1) Fuel Limitations

The Permittee shall use diesel fuel that meets the requirements in 40 CFR 1090.305 for nonroad diesel fuel.

(2) Emission Limitations

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

(i) The Permittee shall limit concentration of CO in the engine exhaust to

(a) 49 ppmv at 15 percent O2 for engines between 300-500 HP,

(b) 23 ppmvd at 15 percent O2 for engines greater than 500 HP;

(ii) The Permittee shall reduce CO emissions by 70%

(b) If any more than 300 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 IV.D.4.a(2) instead of the applicable emission limitations in Condition IV.D.4.b(2)(a) and crankcase ventilation system requirements Condition IV.D.4.b(3). The Permittee shall comply with the emission limitations in Condition IV.D.4.b(2)(a) 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 IV.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. Additional Operating Limitations for Engines > 500 HP

(1) If the Permittee is using an oxidation catalyst to comply with the requirement to limit or reduce the concentration of CO;  

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

(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. The Permittee can petition the Director pursuant to the requirements of 40 CFR 63.8(f) for a different temperature range.

(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 for Engines > 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 CEMS to monitor CO and either O₂ or CO₂ according to the requirements below. 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.

(a) Each CEMS must be installed, operated, and maintained according to the applicable performance specifications of 40 CFR part 60, appendix B.

(b) The Permittee shall conduct an initial performance evaluation and an annual relative accuracy test audit (RATA) of each CEMS according to the requirements in 40 CFR 63.8 and according to the applicable performance specifications of 40 CFR Part 60, appendix B as well as daily and periodic data quality checks in accordance with 40 CFR Part 60, Appendix F, Procedure 1.

(c) As specified in 40 CFR 63.8(c)(4)(ii), each CEMS must complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period. The Permittee shall have at least two data points, with each representing a different 15-minute period, to have a valid hour of data.

(d) The CEMS data must be reduced as specified in 40 CFR 63.8(g)(2) and recorded in parts per million or parts per billion (as appropriate for the applicable limitation) at 15 percent oxygen or the equivalent CO₂ concentration.

(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 below:

(a) The Permittee shall prepare a site-specific monitoring plan that addresses the monitoring system design, data collection, and the quality assurance and quality control elements outlined below and in 40 CFR 63.8(d). As specified in 40 CFR 63.8(f)(4), you may request approval of monitoring system quality assurance and quality
control procedures alternative to those specified below in your site-specific monitoring plan.

(i) The performance criteria and design specifications for the monitoring system equipment, including the sample interface, detector signal analyzer, and data acquisition and calculations;

(ii) Sampling interface (e.g., thermocouple) location such that the monitoring system will provide representative measurements;

(iii) Equipment performance evaluations, system accuracy audits, or other audit procedures;

(iv) Ongoing operation and maintenance procedures in accordance with provisions in 40 CFR 63.8(c)(1)(ii) and (c)(3); and

(v) Ongoing reporting and recordkeeping procedures in accordance with provisions in 40 CFR 63.10(c), (e)(1), and (e)(2)(i).

(b) The Permittee shall install, operate, and maintain each CPMS in continuous operation according to the procedures in your site-specific monitoring plan.

(c) The CPMS must collect data at least once every 15 minutes (see also §63.6635).

(d) For a CPMS for measuring temperature range, the temperature sensor must have a minimum tolerance of 2.8 degrees Celsius (5 degrees Fahrenheit) or 1 percent of the measurement range, whichever is larger. IV.D.4.d(2)

(e) The Permittee shall conduct the CPMS equipment performance evaluation, system accuracy audits, or other audit procedures specified in your site-specific monitoring plan at least annually.

(f) The Permittee shall conduct a performance evaluation of each CPMS in accordance with your site-specific monitoring plan.

(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 Condition IV.D.4.d(2) above.

[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, and 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 IV.D.4.b(2)(a). 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 Condition IV.D.4.d(2).

(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 Condition IV.D.4.d(3).

(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 reduction of CO calculated using 40 CFR 63.6620 equals or exceeds the required percent reduction, or that the emissions remain at or below the CO concentration limit. The initial test comprises the first 4-hour period after successful validation of the CEMS. Compliance is based on 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 40 CFR 63 Subpart
ZZZZ, 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

[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 Condition IV.D.4.d(2), 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 the 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 Condition IV.D.4.d(3); 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 was submitted to comply with 40 CFR 63 Subpart ZZZZ, including all documentation supporting any Initial Notification or Notification of Compliance Status that the Permittee submitted, according to the requirement in 40 CFR 63.10(b)(2)(xiv);

(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 IV.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 to show continuous compliance with each emission or operating limitation in Condition IV.D.4.f.

[40 CFR 63.6655(d)]

(4) 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 if you operate any of the following stationary ICE:

[40 CFR 63.6655(e)]

(a) An existing stationary emergency RICE

(b) An existing stationary RICE subject to management practices as shown in Condition IV.D.4.a(2).

i. Reporting Requirements

(1) The Permittee shall submit semi-annual compliance reports in accordance with the following requirements:

[40 CFR 63.6650(a) and (b)]

(a) The first Compliance report must cover the period beginning of the compliance period and ending on June 30 or December 31, whichever date is the first date following the end of the first calendar half after the beginning of the compliance period.

(b) The first Compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date follows the end of the first calendar half after the beginning of the compliance period.

(c) Each subsequent Compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31.

(d) Each subsequent Compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period.
The Compliance report shall contain the following information:

(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 IV.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 40 CFR 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 40 CFR 63 Subpart ZZZZ, the Compliance report shall contain the information in Conditions IV.D.4.i(2)(a) through (d) and the information below:

(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 the Permittee is using a CMS to comply with the emission and operating limitations in 40 CFR 63 Subpart ZZZZ, the Permittee shall include information in Conditions IV.D.4.i(2)(a) through (d) 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 IV.D.5.a(2)(b), (c), and (d) at the following frequencies:

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

(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.

[40 CFR 63.6625(j) and Table 2d to 40 CFR 63 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 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.
[Table 2d to 40 CFR 63 Subpart ZZZZ]

(d) The Permittee shall inspect all hoses and belts and replace as necessary.
[Table 2d to 40 CFR 63 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, and A.A.C. R18-2-331.A.3.d & 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, and A.A.C. R18-2-331.A.3.d & 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 Condition IV.D.4.d(1)(c), or
[40 CFR 63.6625(b) and A.A.C. R18-2-331.A.3.c]
(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, Table 5 to 40 CFR 63 Subpart ZZZZ, and A.A.C. R18-2-331.A.3.c]

(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), Table 5 to 40 CFR 63 Subpart ZZZZ]

(i) For 4SRB engines, 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 O2;

(ii) For 4SLB engines, 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 O2, 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 \( \text{O}_2 \) using one of the \( \text{O}_2 \) measurement methods specified in Table 4 of 40 CFR Part 63 Subpart ZZZZ. Measurements to determine \( \text{O}_2 \) 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 \( \text{O}_2 \) 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 IV.D.5.b(3)(a). The annual compliance demonstration shall consist of at least one test run in accordance with the procedure in Conditions IV.D.5.b(3)(b).

[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 IV.D.5.b(3)(a), 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 IV.D.5.b(3)(a). 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 Condition IV.D.5.b(3)(a).

[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 IV.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 IV.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 was 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 IV.D.5.a.(3) 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 IV.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 IV.D.5.a(2), 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 reports in accordance with the following requirements:

   [40 CFR 63.6650(a) and (b)]

(a) The first Compliance report must cover the period beginning of the compliance period and ending on June 30 or December 31, whichever date is the first date following the end of the first calendar half after the beginning of the compliance period.

(b) The first Compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date follows the end of the first calendar half after the beginning of the compliance period.
(c) Each subsequent Compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31.

(d) Each subsequent Compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period.

(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 IV.D.5.e.(3)(a) through (d)
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 IV.D.5.e.(3)(a) through (d) and the information below:

[40 CFR 63.6650(e)]

(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), 66.6630(c), 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]

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

A. Applicability

This Section applies to the following affected facilities as defined in 40 CFR 60 Subpart III:

1. Compression ignition (CI) internal combustion engines (ICE) that commenced construction after July 11, 2005, where the stationary CI ICE are:

   a. Manufactured after April 1, 2006, and are not fire pump engines, or
   [40 CFR 60.4200(a)(2)]

   b. Manufactured as a certified National Fire Protection Association (NFPA) fire pump engine after July 1, 2006.
   [40 CFR 60.4200(a)(2)(ii)]

2. Any stationary CI ICE that are modified or reconstructed after July 11, 2005.
   [40 CFR 60.4200(a)(3)]

3. Stationary CI ICE may be eligible for exemption from the requirements of NSPS 40 CFR 60 Subpart III as described in 40 CFR Part 1068, Subpart C, except that the Permittee, 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 stationary CI ICE that achieve
the applicable emission standards in Condition V.C.1 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 V.C.1.d.

[40 CFR 60.4211(a)(1) and 40 CFR 60.4211(g)]

c. The Permittee shall change only those emission-related settings that are permitted by the manufacturer, or demonstrate compliance in accordance with Condition V.C.1.d.

[40 CFR 60.4211(a)(2), and 40 CFR 60.4211(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

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

[40 CFR 60.4207(b)]

a. Sulfur content; 15 ppm maximum; and

b. A minimum cetane index of 40 or a maximum aromatic content of 35 volume percent.

3. If an engine is equipped with a diesel particulate filter to comply with the emission standards, 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]

4. 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.


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, brake 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 shall comply with the emission standards in following Table:

[40 CFR 60.4204(a) and Table 1 to 40 CFR Subpart IIII]
Table 2: Non-Emergency Generator Emission Limits

<table>
<thead>
<tr>
<th>Maximum Engine Power</th>
<th>g/KW-hr (g/HP-hr)</th>
<th>HC</th>
<th>NOX</th>
<th>CO</th>
<th>PM</th>
</tr>
</thead>
<tbody>
<tr>
<td>NMHC + NOX</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>KW&lt;8 (HP&lt;11)</td>
<td>10.5 (7.8)</td>
<td>8.0 (6.0)</td>
<td>1.0 (0.75)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8≤KW&lt;19 (11≤HP&lt;25)</td>
<td>9.5 (7.1)</td>
<td>6.6 (4.9)</td>
<td>0.80 (0.60)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>19≤KW&lt;37 (25≤HP&lt;50)</td>
<td>9.5 (7.1)</td>
<td>5.5 (4.1)</td>
<td>0.80 (0.60)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>37≤KW&lt;56 (50≤HP&lt;75)</td>
<td></td>
<td>9.2 (6.9)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>56≤KW&lt;75 (75≤HP&lt;100)</td>
<td></td>
<td>9.2 (6.9)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>75≤KW&lt;130 (100≤HP&lt;175)</td>
<td></td>
<td>9.2 (6.9)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>130≤KW&lt;225 (175≤HP&lt;300)</td>
<td></td>
<td>1.3 (1.0)</td>
<td>9.2 (6.9)</td>
<td>11.4 (8.5)</td>
<td>0.54 (0.40)</td>
</tr>
<tr>
<td>225≤KW&lt;450 (300≤HP&lt;600)</td>
<td></td>
<td>1.3 (1.0)</td>
<td>9.2 (6.9)</td>
<td>11.4 (8.5)</td>
<td>0.54 (0.40)</td>
</tr>
<tr>
<td>450≤KW&lt;560 (600≤HP&lt;750)</td>
<td></td>
<td>1.3 (1.0)</td>
<td>9.2 (6.9)</td>
<td>11.4 (8.5)</td>
<td>0.54 (0.40)</td>
</tr>
<tr>
<td>KW&gt;560 (HP&gt;750)</td>
<td>1.3 (1.0)</td>
<td>9.2 (6.9)</td>
<td>11.4 (8.5)</td>
<td>0.54 (0.40)</td>
<td></td>
</tr>
</tbody>
</table>

b. Pre-2007 model year with displacement 10 ≤ and < 30 l/cyl;
   (a) The Permittee must comply with the Tier 1 emission standards in 40 CFR 1092, Appendix I. [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 ≤ 3,000 hp;
       (a) Must comply with 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 ≥ 10 l/cyl;

(a) Model years 2007 through 2012;

The Permittee must comply the appropriate Tier 2 emission standards for new marine CI engines as described in 40 CFR 1092 Appendix I, for all pollutants, for the same displacement and rated power.

[40 CFR 60.4201(d)(1)]

(b) Model year 2013;

(i) Displacement < 15 l/cyl;

(a) 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, for the same displacement and maximum engine power.

[40 CFR 60.4201(e)(1)]

(b) Maximum engine power ≥ 4958 hp;

The Permittee must comply the appropriate Tier 2 emission standards for new marine CI engines as described in 40 CFR 1092 Appendix I, for all pollutants, for the same displacement and rated power.

[40 CFR 60.4201(d)(2)]

(ii) Displacement ≥ 15 l/cyl.

The Permittee must comply the appropriate Tier 2 emission standards for new marine CI engines as described in 40 CFR 1092 Appendix I, for all pollutants, for the same displacement and rated power.

[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. 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 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 V.C.1 shall 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 to emission standards for the same model year and maximum engine power as described in 40 CFR parts 1039 and 1042, as applicable. The engine must be installed and configured according to the manufacturer's specifications;

   [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 V.C.1 and these methods must have been followed correctly;

   [40 CFR 60.4211(b)(2)]

   (3) Keeping records of engine manufacturer data indicating compliance with the standards;

   [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 V.C.1 for the same model year and maximum engine power; and
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, the Permittee shall demonstrate compliance by:

   [40 CFR 60.4211(d)]

   (1) Conducting an initial performance test to demonstrate initial compliance with the emission standards as specified in 40 CFR 60.4213.

   (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;

   (a) Identification of the specific parameters that the Permittee proposes to monitor continuously; and

   (b) A discussion of the relationship between these parameters and NO\textsubscript{X} 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\textsubscript{X} and PM emissions; and

   (c) A discussion of how the Permittee will establish the upper and/or lower values for these parameters which will establish the limits on these parameters in the operating limitations; and

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

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

d. The Permittee using modified or reconstructed engine subject to an applicable emission standard(s) specified in Condition V.C.1 shall demonstrate compliance by:

   [40 CFR 60.4211(e)(1)]

   (1) Purchase, or otherwise owning or operating, an engine certified to the applicable emission standard(s).

   (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.
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 V.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 is greater than 3,000 hp, or has a displacement of greater than or equal to 10 l/cyl, or is pre-2007 model year that is greater than 175 hp and not certified must meet the following requirements:

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

         (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.

   (2) Keep records of the following information:

         (a) All notifications submitted to comply with this Section and all documentation supporting any notification;
         (b) Maintenance conducted on the engine;
         (c) If the engine is certified, documentation from the manufacturer that the engine is certified to meet the applicable emission standards;
         (d) If the engine is not certified, documentation that the engine meets the emission standards.
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 engines according to the requirements in Condition V.D.1.b(1) through (3) in order for the engines to be considered emergency stationary engine, any operation other than emergency operation, maintenance response, and operation in non-emergency situations for 50 hours per year. If the emergency engine is not operated in accordance with the requirements in Conditions below, the engine will not be considered an emergency engine and must meet all requirements for non-emergency engines.

   [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 V.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.

(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 V.D.1.b(2). Except as provided in Condition V.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.

(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 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)(E)]

a. 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 emission limits in the Table below:

[Table 4 to 40 CFR 60 Subpart IIII and 40 CFR 60.4205(c)]

<table>
<thead>
<tr>
<th>Maximum Engine Power (EP) (horsepower)</th>
<th>Model year</th>
<th>Emission Standard (g/HP-hr)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>PM</td>
</tr>
<tr>
<td>EP &lt; 11</td>
<td>2010 and earlier</td>
<td>0.75</td>
</tr>
<tr>
<td></td>
<td>2011 and later</td>
<td>0.30</td>
</tr>
<tr>
<td>11 ≤ EP &lt; 25</td>
<td>2010 and earlier</td>
<td>0.60</td>
</tr>
<tr>
<td></td>
<td>2011 and later</td>
<td>0.30</td>
</tr>
<tr>
<td>25 ≤ EP &lt; 50</td>
<td>2010 and earlier</td>
<td>0.60</td>
</tr>
<tr>
<td></td>
<td>2011 and later</td>
<td>0.22</td>
</tr>
<tr>
<td>50 ≤ EP &lt; 75</td>
<td>2010 and earlier</td>
<td>0.60</td>
</tr>
<tr>
<td></td>
<td>2011 and later</td>
<td>0.30</td>
</tr>
<tr>
<td>75 ≤ EP &lt; 100</td>
<td>2010 and earlier</td>
<td>0.60</td>
</tr>
<tr>
<td></td>
<td>2011 and later</td>
<td>0.30</td>
</tr>
<tr>
<td>100 ≤ EP &lt; 175</td>
<td>2009 and earlier</td>
<td>0.60</td>
</tr>
<tr>
<td></td>
<td>2010 and later</td>
<td>0.22</td>
</tr>
<tr>
<td>175 ≤ EP &lt; 300</td>
<td>2008 and earlier</td>
<td>0.40</td>
</tr>
<tr>
<td></td>
<td>2009 and later</td>
<td>0.15</td>
</tr>
<tr>
<td>300 ≤ EP &lt; 600</td>
<td>2008 and earlier</td>
<td>0.40</td>
</tr>
<tr>
<td></td>
<td>2009 and later</td>
<td>0.15</td>
</tr>
<tr>
<td>600 ≤ EP ≤ 750</td>
<td>2008 and earlier</td>
<td>0.40</td>
</tr>
<tr>
<td></td>
<td>2009 and later</td>
<td>0.15</td>
</tr>
<tr>
<td>EP &gt; 750</td>
<td>2008 and earlier</td>
<td>0.40</td>
</tr>
<tr>
<td></td>
<td>2008 and later</td>
<td>0.15</td>
</tr>
</tbody>
</table>

(1) For model years 2011-2013, fire pump stationary CI ICE in this engine power category with a rated speed of greater than 2,650 revolutions per minute (rpm) may comply with the emission limitations for 2010 mode year engines.

(2) For model years 2010-2012, fire pump stationary CI ICE in this
engine power category with a rated speed of greater than 2,650 rpm may comply with the emission limitations for 2009 model year engines.

b. Emergency Engines

(1) Pre-2007 model year emergency stationary CI engines shall comply with the following emission standards:

(a) Displacement of less than 10 liters per cylinder that are not fire pump engines shall comply with the emission standards in Table 1 above.

(b) Displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder that are not fire pump engines shall comply with Tier 1 emissions standards in 40 CFR 1042 Appendix I.

(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:

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

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

(a) 2007 model year engines shall meet the Tier 2 emission standards for new nonroad CI engines for the appropriately rated power in 40 CFR 1039 Appendix I, for all pollutants and smoke standards as specified in 40 CFR 1039.105 for model year 2007 engines; and

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

(ii) For engines with a maximum engine power greater than or equal to 50 brake horsepower, the
Permittee shall meet the Tier 2 or Tier 3 emission standards for new nonroad CI engines for the same rated power as described in 40 CFR part 1039, appendix I, for all pollutants and the smoke standards as specified in 40 CFR 1039.105 beginning in model year 2007

[40 CFR 60.4202(a)(2)]

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

[40 CFR 60.4202(b)]

(i) For 2007 through 2010 model years, the emission standards in Table 1 above, for all pollutants, for the same maximum engine power;

(ii) For 2011 model year and later, the Tier 2 emission standards as described in 40 CFR 1039 Appendix I, for all pollutants and the smoke standards specified in 40 CFR 1039.105

(3) Stationary CI ICE that are not fire pumps shall meet the appropriate Tier 2 emission standards for new marine compression ignition engines in 40 CFR 1042 Appendix I, 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 Conditions V.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 V.D.2.b(1), shall demonstrate compliance according to one of the methods specified below:

[40 CFR 60.4211(b)]

1. Purchasing an engine certified to emission standards for the same model year and maximum engine power as described in 40 CFR parts 1039 and 1042, as applicable. The engine must 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 40 CFR 60 Subpart III 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.

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 V.D.2.b(2), the Permittee shall comply by purchasing an engine certified to the emission standards 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 60.4211(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 V.D.2.a shall comply by purchasing an engine certified to the emission standards in 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.

[40 CFR 60.4211(c)]

<table>
<thead>
<tr>
<th>Engine Power (EP) (brake horsepower)</th>
<th>Model Year</th>
</tr>
</thead>
</table>

Table 4: Certification Requirements of Stationary Fire Pump Engines
### Crushing and Screening Plants

**General Permit**

**p. 68 of 172**

<table>
<thead>
<tr>
<th>EP &lt; 100</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>100 ≤ EP &lt; 175</td>
<td>2010</td>
</tr>
<tr>
<td>175 ≤ EP &lt; 750</td>
<td>2009</td>
</tr>
<tr>
<td>EP ≥ 750</td>
<td>2008</td>
</tr>
</tbody>
</table>

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.


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

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


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;

   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.

2. Keep records of the information the following:

   [40 CFR 60.4214(a)(2)]

   a. All notifications submitted to comply with this 40 CFR 60 Subpart IIII and all documentation supporting any notification.

   b. Maintenance conducted on the engine.

   c. If the stationary CI internal combustion engine is certified, documentation from the manufacturer that the engine is certified to meet the emission standards.

   d. If the stationary CI internal combustion is not a certified engine, documentation that the engine meets the emission standards.
standards.

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)]

<table>
<thead>
<tr>
<th>Engine Power</th>
<th>Starting Model Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>19&lt;KW&lt;56 (25&lt;HP&lt;75)</td>
<td>2013</td>
</tr>
<tr>
<td>56&lt;KW&lt;130 (75&lt;HP&lt;175)</td>
<td>2012</td>
</tr>
<tr>
<td>KW&gt;130 (HP&gt;175)</td>
<td>2011</td>
</tr>
</tbody>
</table>

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 V.D.1.b(2)(b) and (c) or that operates for the purposes specified in Condition V.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 6.4214(d)(1)]

(a) Company name and address where the engine is located.

(b) Date of the report and beginning and ending dates of the reporting period.

(c) Engine site rating and model year.

(d) Latitude and longitude of the engine in decimal degrees reported to the fifth decimal place.

(e) Hours operated for the purposes specified in Condition V.D.1.b(2)(b) and (c), including the date, start time, and end time for engine operation for the purposes specified in Condition V.D.1.b(2)(b) and (c).

(f) Number of hours the engine is contractually obligated to
be available for the purposes specified in Condition V.D.1.b(2)(b) and (c).

(g) Hours spent for operation for the purposes specified in Condition V.D.1.b(2)(b), including the date, start time, and end time for engine operation for the purposes specified in Condition V.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.

(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). However, if the reporting form specific to 40 CFR Part 60 Subpart III 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), 60.4205(c), 60.4205(a), 60.4205(b), 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]

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

A. Applicability
This Section applies to the affected facilities as defined in 40 CFR 60.4230 and marked on the ATO as applicable to New Source Performance Standards (NSPS) Subpart JJJJ.

B. Fuel Requirements

1. Gasoline Fuel Sulfur Limits

If the Permittee uses gasoline in the stationary SI ICE, then the Permittee must use gasoline that meets the per gallon sulfur limit in 40 CFR 1090.205.

2. Permit Shield

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

B. 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.

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

C. 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.

2. The Permittee shall operate and maintain the stationary SI ICE such that it complies with the emission standards listed in Condition VI.C.12, except for engines applicable to Conditions VI.C.3 through 6 below.

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, shall comply with the emission standards in 40 CFR 60.4231(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 shall comply with the emission standards in 40 CFR 60.4231(b).

5. Stationary SI ICE with a maximum engine power greater than 19 KW (25 HP)
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) shall comply with the emission standards for field testing in 40 CFR 1048.101(c).

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) shall comply with the emission standards listed in Condition VI.C.12 of this Attachment.

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 in Condition VI.C.12 of this Attachment applicable to engines with a maximum engine power greater than or equal to 100 HP and less than 500 HP, may meet those standards.

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 Condition VI.C.12 of this Attachment. 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 Condition VI.C.12 of this Attachment, then the Permittee shall meet the CO certification (not field testing) standard for which the engine was certified.

10. Modified or reconstructed stationary SI ICE shall meet the requirements as specified in Conditions VI.C.10.a through d of this Section.

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, shall 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 shall 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, shall 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) shall 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, shall 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) shall 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, shall comply with the same emission standards as those specified in Conditions VI.C.6 through 8 or VI.C.9 as applicable, except that the Permittee of non-emergency engines and emergency engines greater than or equal to 130 HP shall meet a nitrogen oxides (NO\textsubscript{X}) 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\textsubscript{X} emission standard of 250 ppmvd at 15 percent oxygen (O\textsubscript{2}), a CO emission standard 540 ppmvd at 15 percent O\textsubscript{2} (675 ppmvd at 15 percent O\textsubscript{2} for non-emergency engines less than 100 HP), and a VOC emission standard of 86 ppmvd at 15 percent O\textsubscript{2}, 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 shall, if testing their engines in use, meet the standards applicable to field testing, except as indicated in Condition VI.C.9.

[40 CFR 60.4233(h)]

12. Emission Standards

[Table 1 to 40 CFR 60 Subpart JJJJ]
Table 6: Compression-Ignition Emission Standard

<table>
<thead>
<tr>
<th>Engine type and fuel</th>
<th>Maximum engine power</th>
<th>Manufacture date</th>
<th>Emission standards</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>g/HP-hr</td>
<td>ppmvd at 15% O\textsubscript{2}</td>
<td>\textsuperscript{d}NO\textsubscript{x}, CO, VOC</td>
</tr>
<tr>
<td>Non-Emergency SI</td>
<td>100≤HP&lt;500</td>
<td>7/1/2008</td>
<td>2.0 4.0 1.0 160</td>
</tr>
<tr>
<td>Natural Gas and</td>
<td></td>
<td>1/1/2011</td>
<td>1.0 2.0 0.7 82</td>
</tr>
<tr>
<td>Non-Emergency SI</td>
<td>500≤HP&lt;1,350</td>
<td>1/1/2008</td>
<td>2.0 4.0 1.0 160</td>
</tr>
<tr>
<td>Lean Burn LPG</td>
<td></td>
<td>7/1/2010</td>
<td>1.0 2.0 0.7 82</td>
</tr>
<tr>
<td>Non-Emergency SI</td>
<td>HP≥500</td>
<td>7/1/2007</td>
<td>2.0 4.0 1.0 160</td>
</tr>
<tr>
<td>Lean Burn Natural</td>
<td></td>
<td>7/1/2010</td>
<td>1.0 2.0 0.7 82</td>
</tr>
<tr>
<td>Gas and LPG</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-Emergency SI</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lean Burn LPG (except</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>lean burn 500≤HP&lt;1,350</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>500≤HP&lt;1,350</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Emergency</td>
<td>25&lt;HP&lt;130</td>
<td>1/1/2009</td>
<td>10 387 N/A</td>
</tr>
<tr>
<td></td>
<td>HP≥130</td>
<td></td>
<td>2.0 4.0 1.0</td>
</tr>
</tbody>
</table>

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]

D. 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 VI.C.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 VI.D.1.a and VI.D.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 VI.D.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 VI.C.6 through 8, or VI.C.9 as applicable, shall demonstrate compliance according to one of the methods specified in Conditions VI.D.9.a and VI.D.2.b below:

[40 CFR 60.4243(b)]

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

b. Purchasing a non-certified engine and demonstrating compliance with the emission standards specified in Conditions VI.C.6 through 8, or VI.C.9 as applicable, and according to the performance testing requirements specified 40 CFR 60.4244, as applicable, and according to Conditions VI.D.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 VI.C.10 shall demonstrate compliance according Conditions VI.D.2.b(1) or (2), except that if the Permittee complies according to Conditions VI.D.2.b(1), The Permittee shall demonstrate that the non-certified engine complies with the emission standards specified in Condition VI.C.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 VI.D.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 VI.D.4.a(1) through (3) below, is prohibited. If you do not operate the engine according to the requirements in Conditions VI.D.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 VI.D.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 VI.D.4.a(3) counts as part of the 100 hours per calendar year allowed by Condition VI.D.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 VI.D.4.a(2). Except as provided in Condition VI.D.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 in Condition VI.C.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 VI.C.4 or 5, you must comply by one of the methods specified in Conditions VI.D.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 VI.C.10, the Permittee shall demonstrate compliance according to one of the methods specified in Conditions VI.D.9.a or b below.

   a. Purchasing, or otherwise owning or operating, an engine certified to the emission standards in VI.C.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.

E. Notification, Reporting, and Recordkeeping Requirements

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

   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.

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.

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. [40 CFR 60.4245(b)]

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. [40 CFR 60.4245(b)]

5. 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)]

6. 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 shall submit an initial notification as required in 40 CFR 60.7(a)(1). The notification shall 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.

7. The Permittee of stationary SI ICE that are subject to performance testing shall submit a copy of each performance test as conducted in §60.4244 within 60 days after the test has been completed. Performance test reports using EPA Method 18, EPA Method 320, or ASTM D6348-03 (incorporated by reference—see 40 CFR 60.17) to measure VOC require reporting of all QA/QC data. For Method 18, report results from sections 8.4 and 11.1.1.4; for Method 320, report results from sections 8.6.2, 9.0, and 13.0; and for ASTM D6348-03 report results of all QA/QC procedures in Annexes 1-7. [40 CFR 60.4245(d)]

8. 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 VLD.4.a(2)(b) and (c), shall submit an annual report according to the requirements in Conditions VI.E.8.a through c below: [40 CFR 60.4245(e)]

   a. The report must contain the following information. [40 CFR 60.4245(e)(1)]

      (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 VI.D.4.a(2)(b) and (c) including the date, start time, and end time for engine operation for the purposes specified in Conditions VI.D.4.a(2)(b) and (c);

(6) Number of hours the engine is contractually obligated to be available for the purposes specified in Conditions VI.D.4.a(2)(b) and (c); and

(7) Hours operated for the purposes specified in Condition VI.D.4.a(3)(a), including the date, start time, and end time for engine operation for the purposes specified in Condition VI.D.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). 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)]

9. Permit Shield

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

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

VII. FUGITIVE DUST REQUIREMENTS

A. Applicability

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

B. Particulate Matter and Opacity
Open Areas, Roadways & Streets, Storage Piles, and Material Handling

1. Emission Limitations/Standards

   a. 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]

   b. The Permittee shall employ the following reasonable precautions to prevent excessive amounts of particulate matter from becoming airborne:

      (1) 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]

      (2) 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]

      (3) 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]

      (4) 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]

      (5) 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]

      (6) 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]

      (7) 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;
(8) Any other method as proposed by the Permittee and approved by the Director.

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

2. Air Pollution Control Requirements

a. Haul Roads and Storage Piles

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


[Material Permit Condition is indicated by underline and italics]

b. Explosive Blasting

*The Permittee shall use good air pollution control practices for minimizing emissions when conducting explosive blasting operations.*


[Material Permit Condition is indicated by underline and italics]

3. Monitoring and Recordkeeping Requirements

a. The Permittee shall maintain records of the dates on which any of the activities listed in Conditions VII.B.1.(b)(1) through (8) were performed and the control measures that were adopted.

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

b. Opacity Monitoring Requirements

The Permittee shall conduct a weekly monitoring of visible emissions from the fugitive dust sources as per the periodic opacity monitoring requirements specified in Condition III.F.

c. Explosive Blasting

The Permittee shall keep records of the following information:

(1) The date and time each blast occurred;

(2) The amount of explosive blasting material used, in pounds, for each blast; and

(3) The type of explosive blasting material used for each blast.

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

C. Permit Shield

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

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

VIII. OTHER PERIODIC ACTIVITIES
A. Abrasive Blasting

1. Particulate Matter and Opacity
   a. Emission Limitations/Standards
      
      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
      
      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.

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

2. Monitoring and Recordkeeping Requirement
   
   Each time an abrasive blasting project is conducted, the Permittee shall make 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.

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

3. Permit Shield
   
   Compliance with this Part shall be deemed compliance with A.A.C. R18-2-702.B.3 and -726.

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

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 VIII.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 Conditions VIII.B.1.a(3)(a) through (c), 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 Conditions VIII.B.1.a(3)(a) through (c), 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

(1) Each time a spray painting project is conducted, the Permittee shall make 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) Safety Data Sheets (SDS) 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 VIII.B.1.b(1). [A.A.C. R18-2-306.A.3.c]

c. Permit Shield

Compliance with this Part shall be deemed compliance with A.A.C. R18-2-727.

[252x628]Architectural coating and spot painting projects shall be exempt from the recordkeeping requirements of Condition VIII.B.1.b(1). [A.A.C. R18-2-306.A.3.c]

2. Opacity

a. Emission Limitation/Standard

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.

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

b. Permit Shield

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

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

C. Demolition/Renovation - Hazardous Air Pollutants

1. Emission Limitation/Standard

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

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

2. Monitoring and Recordkeeping Requirement

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.

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

3. Permit Shield

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

[A.A.C. R18-2-325]
ATTACHMENT “C”: SPECIFIC CONDITIONS FOR CRUSHING AND SCREENING PLANTS

I. CRUSHING AND SCREENING OPERATIONS SUBJECT TO NEW SOURCE PERFORMANCE STANDARDS (NSPS)

A. Applicability

1. The following equipment that commenced construction, reconstruction, or modification after August 31, 1983 are subject to 40 CFR 60 Subpart OOO New Source Performance Standards for Nonmetallic Mineral Processing: [40 CFR 60.670(a) and (e)]

   a. Crushers;
   b. Grinding mills;
   c. Screening operations;
   d. Bucket elevators;
   e. Belt conveyors;
   f. Bagging operations;
   g. Storage bins;
   h. Enclosed truck or railcar loading stations;

2. The following facilities are not subject to the requirements of this Section: [40 CFR 60.670(c) and 670(a)(2)]

   a. Fixed sand and gravel plants and crushed stone plants with capacities of 23 megagrams per hour (25 tons per hour) or less;
   b. Portable sand and gravel plants and crushing stone plants with capacities of 136 megagrams per hour (150 tons per hour) or less; and
   c. Common clay plants and pumice plants with capacities of 9 megagrams per hour (10 tons per year) or less.
   d. All facilities located in underground mines; plants without crushers or grinding mills above ground; and wet material processing operations.

B. Notification Requirements

1. The Permittee shall furnish to the Director for all new facilities that were not previously permitted a written notification as follows: [40 CFR 60.7(a)(1)]

   a. A notification of the date construction or reconstruction (as defined under 40 CFR 60.15 and 60.673) of the permitted facility is commenced postmarked no later than 30 days after such date.
b. A notification of the actual date of initial startup of a permitted facility postmarked within 15 days after such date.

[40 CFR 60.7(a)(3)]

2. The Permittee shall furnish to the Director a written notification as follows:

a. A notification of any physical or operational change to an affected facility which may increase the emission rate of any air pollutant to which a standard applies, unless that change is specifically exempted under an applicable subpart or in 40 CFR 60.14(e).

[40 CFR 60.7(a)(4)]

b. This notice shall be postmarked 60 days or as soon as practicable before the change is commenced and shall include information describing the precise nature of the change, present and proposed emission control systems, productive capacity of the facility before and after the change, and the expected completion date of the change. The Director may request additional relevant information subsequent to this notice.

[40 CFR 60.7(a)(4)]

c. For a combination of affected facilities in a production line that begin actual initial startup on the same day, a single notification of startup may be submitted by the Permittee to the Director. The notification shall be postmarked within 15 days after such date and shall include a description of each affected facility, equipment manufacturer, and serial number of the equipment, if available.

[40 CFR 60.676(i)(1)]

d. For portable aggregate processing plants, the notification of the actual date of initial startup shall include both the home office and the current address or location of the portable plant.

[40 CFR 60.676(i)(2)]

C. Particulate Matter and Opacity

1. Emission Limitations and Air Pollution Control

a. Crusher Operations without Capture Systems

(1) The Permittee shall not allow to be discharged into the atmosphere from any crusher which commenced construction, modification, or reconstruction after August 31, 1983, but before April 22, 2008, at which a capture system is not used, any fugitive emissions which exhibit visible emissions greater than 15 percent opacity.

[40 CFR 60.672(b) and A.A.C. R18-2-331.A.3.f]

[Material permit conditions are indicated by underline and italics]

(2) The Permittee shall not allow to be discharged into the atmosphere from any crusher which commenced construction, modification, or reconstruction on or after April 22, 2008, at which a capture system is not used, any fugitive emissions which exhibit visible emissions greater than 12 percent opacity.

[40 CFR 60.672(b) and A.A.C. R18-2-331.A.3.f]
b. Crusher Operations with Capture Systems and All Other Affected Facilities

(1) The Permittee shall not allow to be discharged into the atmosphere from any grinding mill, screening operation, bucket elevator, transfer point on belt conveyors, bagging operation, storage bin, enclosed truck or railcar loading stations or any other affected facility, which commenced construction, modification, or reconstruction after August 31, 1983, but before April 22, 2008, any fugitive emissions (including emissions escaping capture systems) which exhibit visible emissions greater than 10 percent opacity.

[40 CFR 60.672(b) and A.A.C. R18-2-331.A.3.f]

(2) The Permittee shall not allow to be discharged into the atmosphere from any grinding mill, screening operation, bucket elevator, transfer point on belt conveyors, bagging operation, storage bin, enclosed truck or railcar loading stations or any other affected facility, which commenced construction, modification, or reconstruction on or after April 22, 2008, any fugitive emissions (including emissions escaping capture systems) which exhibit visible emissions greater than 7 percent opacity.

[40 CFR 60.672(b) and A.A.C. R18-2-331.A.3.f]

(3) The Permittee shall not allow to be discharged into the atmosphere from any affected facility which commenced construction, modification, or reconstruction after August 31, 1983, but before April 22, 2008, stack emissions which contain particulate matter in excess of 0.05 grams per dry standard cubic meter (0.022 grains per dry standard cubic foot).

[40 CFR 60.672(a)]

(4) The Permittee shall not allow to be discharged into the atmosphere from any affected facility which commenced construction, modification, or reconstruction on or after April 22, 2008, stack emissions which contain particulate matter in excess of 0.032 grams per dry standard cubic meter (0.014 grains per dry standard cubic foot)

[40 CFR 60.672(a)]

(5) The Permittee shall not allow to be discharged into the atmosphere from any affected facility which commenced construction, modification, or reconstruction after August 31, 1983, but before April 22, 2008, dry control device stack emissions which exhibit visible emissions greater than 7 percent opacity.

[40 CFR 60.672(a) and A.A.C. R18-2-331.A.3.f]

(6) The Permittee shall not allow to be discharged into the atmosphere from any individual enclosed storage bin, which
commenced construction, modification, or reconstruction on or after April 22, 2008, dry control device stack emissions which exhibit visible emissions greater than 7 percent opacity.

[40 CFR 60.672(a) and A.A.C. R18-2-331.A.3.f]

(Material permit conditions are indicated by underline and italics)

(7) Any baghouse that controls emissions from only an individual, enclosed storage bin is exempt from the stack particulate matter limits of Conditions I.C.1.b(3) and (4), but must meet the applicable opacity limits of Conditions I.C.1.b(5) and (6). This exemption does not apply for multiple storage bins with combined stack emissions.

[40 CFR 60.672(f)]

c. Operations Enclosed in a Building

If any transfer point on a conveyor belt or any other affected facility is enclosed in a building, then each enclosed affected facility shall comply with the applicable emission limitations of Conditions I.C.1.a or b, or the building enclosing the affected facility or facilities shall comply with the following emission limits:

(1) The Permittee shall not allow to be discharged into the atmosphere from the building openings (except for vents) any fugitive emissions which exhibit visible emissions greater than 7 percent opacity.

[40 CFR 60.672(c)(1) and A.A.C. R18-2-331.A.3.f]

(Material permit conditions are indicated by underline and italics)

(2) The Permittee shall not allow to be discharged into the atmosphere from any vent of the building any emissions from any affected facility which commenced construction, modification, or reconstruction after August 31, 1983, but before April 22, 2008, which contain particulate matter in excess of 0.05 grams per dry standard cubic meter (0.022 grains per dry standard cubic foot) or exhibit greater than 7 percent opacity.

[40 CFR 60.672(c)(2)]

(3) The Permittee shall not allow to be discharged into the atmosphere from any vent of the building any emissions from any affected facility which commenced construction, modification, or reconstruction on or after April 22, 2008, which contain particulate matter in excess of 0.032 grams per dry standard cubic meter (0.014 grains per dry standard cubic foot).

[40 CFR 60.672(c)(2)]

d. Water spray bars or equivalent control equipment shall be used whenever the equipment is operating, or material shall be adequately wet to minimize visible emissions to the extent practical.


(Material permit conditions are indicated by underline and italics)

2. Monitoring, Reporting, and Recordkeeping Requirements
a. When in operation, the Permittee shall conduct weekly opacity monitoring on the equipment under this Section to the applicable opacity standard, in accordance with III.D of Attachment “B”.

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

b. The Permittee shall install, calibrate, maintain, and operate monitoring devices, or other approved methods, which can be used to determine the daily process weight of sand, gravel or crushed stone produced. The weighing devices shall have an accuracy of plus or minus 5 percent over their operating range.


   [Material permit conditions are indicated by underline and italics]

c. If a wet scrubber is used to control emissions from any affected facility, the Permittee shall install, calibrate, maintain and operate the following monitoring devices:

   (1) A device for the continuous measurement of the pressure loss of the gas stream through the scrubber. The monitoring device must be certified by the manufacturer to be accurate within ± 250 pascals (± 1 inch water gauge pressure) and must be calibrated on an annual basis in accordance with manufacturer’s instructions.

   [40 CFR 60.674(a)(1) and A.A.C. R18-2-331.A.3.c]

   [Material permit conditions are indicated by underline and italics]

   (2) A device for the continuous measurement of the scrubbing liquid flow rate to the wet scrubber. The monitoring device must be certified by the manufacturer to be accurate within ± 5 percent of design scrubbing liquid flow rate and must be calibrated on an annual basis in accordance with manufacturer’s instructions.

   [40 CFR 60.674(a)(2) and A.A.C. R18-2-331.A.3.c]

   [Material permit conditions are indicated by underline and italics]

d. If wet suppression is used to control emissions from any affected facility for which construction, modification, or reconstruction commenced on or after April 22, 2008, the Permittee shall perform monthly periodic inspections to check that water is flowing to discharge spray nozzles in the wet suppression system. The Permittee shall initiate corrective action within 24 hours and complete corrective action as expeditiously as practical if it is found that water is not flowing properly during an inspection of the water spray nozzles. The Permittee shall record each inspection of the water spray nozzles, including the date of each inspection and any corrective actions taken, in the logbook required under Condition I.C.2.i.

   [40 CFR 60.674(b)]

   (1) If an affected facility relies on water carryover from upstream water sprays to control fugitive emissions, then that affected facility is exempt from the 5-year repeat testing requirement specified in Condition I.C.3.a(2) provided that the affected facility meets the following criteria.

   (a) The Permittee conducts periodic inspections of the upstream water spray(s) that are responsible for
controlling fugitive emissions from the affected facility. These inspections shall be conducted according to this I.C.2.d and Condition I.C.2.i and

\[40 \text{ CFR 60.674(b)(1)(i)}\]

(b) The Permittee shall designate which upstream water spray(s) will be periodically inspected at the time of the initial performance test required by 40 CFR 60.11 and Condition I.C.3.

\[40 \text{ CFR 60.674(b)(1)(ii)}\]

(2) If an affected facility that routinely uses wet suppression water sprays ceases operation of the water sprays or is using a control mechanism to reduce fugitive emissions other than water sprays during the monthly inspection (for example, water from recent rainfall), the logbook entry required under Condition I.C.2.i shall specify the control mechanism being used instead of the water sprays.

\[40 \text{ CFR 60.674(b)(2)}\]

e. Except as specified in Condition I.C.2.f, the Permittee of any affected facility for which construction, modification, or reconstruction commenced on or after April 22, 2008, and which uses a baghouse to control emissions shall conduct quarterly 30-minute visible emissions inspections using EPA Method 22. The Method 22 test shall be conducted while the baghouse is operating. The test is successful if no visible emissions are observed. If any visible emissions are observed, the Permittee shall initiate corrective action within 24 hours to return the baghouse to normal operation. The Permittee shall record each Method 22 test, including the date and any corrective actions taken, in the logbook required under Condition I.C.2.i. The Permittee may establish a different baghouse-specific success level for the visible emissions test (other than no visible emissions) by conducting a PM performance test in accordance with Condition I.C.3.b simultaneously with a Method 22 test to determine what constitutes normal visible emissions from the baghouse when it is in compliance with the applicable PM limit.

\[40 \text{ CFR 60.674(c)}\]

f. Wet Operations

The Permittee that operates any wet material processing operation that processes saturated material and subsequently processes unsaturated materials shall submit a report of this change within 30 days following such change. At the time of such change, this screening operation, bucket elevator, or belt conveyor becomes subject to the applicable opacity limits and the emission test requirements of 40 CFR 60.11.

\[40 \text{ CFR 60.676(g)}\]

g. Wet Scrubber Requirements

(1) During the initial performance test of a wet scrubber, and daily thereafter, the Permittee shall record the measurements of both the change in pressure of the gas stream across the scrubber and the scrubbing liquid flow rate.
After the initial performance test of a wet scrubber, the Permittee shall submit semiannual reports to the Director of occurrences when the measurements of the scrubber pressure loss (or gain) and liquid flow rate decrease by more than 30 percent from the averaged determined during the most recent performance test. The reports shall be postmarked within 30 days following end of the second and fourth calendar quarters.

The Permittee shall submit written reports of the results of all performance tests conducted to demonstrate compliance with the standards set forth in Condition I.C.1, including reports of opacity observations made using Method 9 to demonstrate compliance with the opacity standards in Condition I.C.1.

The Permittee that operates affected facilities for which construction, modification, or reconstruction commenced on or after April 22, 2008, shall record each periodic inspection required under Conditions I.C.2.d including dates and any corrective actions taken, in a logbook (in written or electronic format). The Permittee shall keep the logbook onsite and make hard or electronic copies (whichever is requested) of the logbook available to the Director upon request.

3. Testing Requirements

a. Initial Compliance

(1) Unless the initial test has been conducted previously, the Permittee shall demonstrate initial compliance with the applicable opacity and PM limits for stack emissions contained in Conditions I.C.1.b(3) through (7) and Conditions I.C.1.c(1) through (3) by conducting initial performance tests according to 40 CFR 60.8 and the test methods and procedures of Condition I.C.3.b. Affected facilities controlled by wet scrubbers are exempt from opacity testing.

(2) Unless the initial test has been conducted previously, the Permittee shall demonstrate initial compliance with the applicable opacity limits for fugitive emissions contained in Conditions I.C.1.a(1) and (2) and I.C.1.b(1) and (2) by conducting initial performance tests according to 40 CFR 60.11 and the test methods and procedures of Condition I.C.3.c. Affected facilities that commenced construction, modification, or reconstruction on or after April 22, 2008, and are not controlled by water sprays or water carryover from upstream water sprays shall conduct a repeat performance test within 5 years of the previous test.

b. The Permittee shall determine compliance with the PM and opacity
standards for stacks in Condition I.C.1 as follows:

(1) Except as specified in Condition I.C.3.h(3), Method 5 or Method 17 shall be used to determine the particulate matter concentration. The sample volume shall be at least 1.70 dscm (60 dscf). For Method 5, if the gas stream being sampled is at ambient temperature, the sampling probe and filter may be operated without heaters. If the gas stream is above ambient temperature, the sampling probe and filter may be operated at a temperature high enough, but no higher than 121 °C (250 °F), to prevent water condensation on the filter.

(2) Method 9 and the procedures in 40 CFR 60.11 shall be used to determine opacity.

c. In determining compliance with the fugitive emission opacity standards in Condition I.C.1, the Permittee shall use Method 9 and the procedures in 40 CFR 60.11, with the following additions:

(1) The minimum distance between the observer and the emission source shall be 4.57 meters (15 feet).

(2) The observer shall, when possible, select a position that minimizes interference from other fugitive emission sources (e.g., road dust). The required observer position relative to the sun (Method 9 of Appendix A–4 of 40 CFR 60, Section 2.1) must be followed.

(3) For affected facilities using wet dust suppression for particulate matter control, a visible mist is sometimes generated by the spray. The water mist must not be confused with particulate matter emissions and is not to be considered a visible emission. When a water mist of this nature is present, the observation of emissions is to be made at a point in the plume where the mist is no longer visible.

d. In determining compliance with the opacity of stack emissions from any baghouse that controls emissions only from an individual enclosed storage bin using Method 9, the duration of the Method 9 observations shall be 1 hour (ten 6-minute averages).

e. The duration of the Method 9 observations may be reduced to the duration the affected facility operates (but not less than 30 minutes) for baghouses that control storage bins or enclosed truck or railcar loading stations that operate for less than 1 hour at a time.

f. When determining compliance with the fugitive emissions standards for any affected facility under Condition I.C.1, the duration of the Method 9 observations shall be 30 minutes (five 6-minute averages). Compliance with the applicable fugitive emission limits shall be based on the average
of the five 6-minute averages.  

\[40 \text{ CFR 60.675(c)(3)}\]

g. To demonstrate compliance with the fugitive emission limits for buildings specified in Condition I.C.1.c(1), the Permittee shall complete the testing specified in following conditions. Performance tests shall be conducted while all affected facilities inside the building are operating.  

\[40 \text{ CFR 60.675(d)}\]

(1) If the building encloses any affected facility that commences construction, modification, or reconstruction on or after April 22, 2008, the Permittee of the affected facility shall conduct an initial Method 9 performance test according to Condition I.C.3.b and 40 CFR 60.11.

(2) If the building encloses only affected facilities that commenced construction, modification, or reconstruction before April 22, 2008, and the Permittee has previously conducted an initial Method 22 performance test showing zero visible emissions, then the Permittee has demonstrated compliance with the opacity limit in Condition I.C.1.c(1). If the Permittee has not conducted an initial performance test for the building before April 22, 2008, then the Permittee shall conduct an initial Method 9 performance test according to Condition I.C.3.b and 40 CFR 60.11 to show compliance with the opacity limit.

h. The Permittee may use the following as alternatives to the reference methods and procedures specified in Condition I.C.3:  

\[40 \text{ CFR 60.675(e)}\]

(1) For the method and procedure of Condition I.C.3.c, if emissions from two or more facilities continuously interfere so that the opacity of fugitive emissions from an individual affected facility cannot be read, either of the following procedures may be used:

(a) Use for the combined emission stream the highest fugitive opacity standard applicable to any of the individual affected facilities contributing to the emissions stream.

(b) Separate the emissions so that the opacity of emissions from each affected facility can be read.

(2) A single visible emission observer may conduct visible emission observations for up to three fugitive, stack, or vent emission points within a 15-second interval if the following conditions are met:

(a) No more than three emission points may be read concurrently.

(b) All three emission points must be within a 70 degree viewing sector or angle in front of the observer such that the proper sun position can be maintained for all three points.
(c) If an opacity reading for any one of the three emission points equals or exceeds the applicable standard, then the observer must stop taking readings for the other two points and continue reading just that single point.

(3) Method 5I may be used to determine the PM concentration as an alternative to the methods specified in Condition I.C.3.b(1). Method 5I may be useful for affected facilities that operate for less than 1 hour at a time such as (but not limited to) storage bins or enclosed truck or railcar loading stations.

i. To comply with Condition I.C.2.g(2), the Permittee shall record the measurements as required in Condition I.C.2.g(1) using the monitoring devices in Conditions I.C.2.c(1) and (2) during each particulate matter run and shall determine the averages.

\[40 \text{ CFR 60.675(f)}\]

j. For performance tests involving only Method 9 testing, the Permittee may reduce the 30-day advance notification of performance test in 40 CFR 60.7(a)(6) and 60.8(d) to a 7-day advance notification.

\[40 \text{ CFR 60.675(g)}\]

k. If the initial performance test date for an affected facility falls during a seasonal shut down (as defined in 40 CFR 60.671) of the affected facility, then with approval from the Director, the Permittee may postpone the initial performance test until no later than 60 calendar days after resuming operation of the affected facility.

\[40 \text{ CFR 60.675(i)}\]

D. Permit Shield

Compliance with of this Section shall be deemed compliance with 40 CFR 60.672(a), (b), (c), & (f), 674(a), (b), (c), & (d), 675(b), (c), (d), (e), (f), (g), & (i), and 676(b), (c), (d), (e), (f), (g) and (i), Table 2 and Table 3 in 40 CFR 60 Subpart OOO.

\[\text{A.A.C.R18-2-325}\]

II. CRUSHING AND SCREENING OPERATIONS SUBJECT TO EXISTING SOURCE REQUIREMENTS

A. Applicability

The provisions of this Section are applicable to 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 constructed or modified prior to August 31, 1983.

\[\text{A.A.C. R18-2-722.A}\]

B. Particulate Matter and Opacity

1. Emission Limits/Standards

a. The Permittee shall not cause, allow or permit the discharge of particulate matter into the atmosphere, except as fugitive emissions, in any one hour
from any gravel or crushed stone processing plant in total quantities in excess of the amounts calculated by one of the following equations:

\[
E = 4.10 P^{0.67}
\]

Where:

- \( E \) is the maximum allowable emissions rate in pounds-mass per hour.
- \( P \) is the process weight rate in tons-mass per hour.

2. Air Pollution Controls

a. **Water spray bars or equivalent control equipment shall be used whenever the equipment is operating or material must be adequately wet to minimize visible emissions to the extent practical.**

   \[ \text{[A.A.C. R18-2-331.A.3.d & e, and 306.A.2]} \]

   [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.

   \[ \text{[A.A.C. R18-2-722.D]} \]

c. Fugitive emissions from operation of gravel or crushed stone processing shall be controlled in accordance with Section VII of Attachment “B”.

   \[ \text{[A.A.C. R18-2-722.E]} \]
d. **Wet Suppression Systems**


(1) Water sprays shall be operated and maintained in accordance with the following:

(a) Prior to start-up, the water supply shall be checked, all nozzles shall be inspected, and all associated valves shall be opened;

(b) Following shut-down, all nozzles shall be inspected and all associated valves shall be closed;

(c) The spray system shall be checked daily for performance; and

(d) All nozzles and valves shall be cleaned or replaced as needed.

(2) Water trucks, or the equivalent, shall be operated and maintained in accordance with the following:

(a) Prior to start-up, the water supply shall be checked, all nozzles shall be inspected, and all associated valves shall be opened;

(b) Following shut-down, all nozzles shall be inspected and all associated valves shall be closed;

(c) Safety and equipment checks shall be conducted daily; and

(d) Normal vehicle maintenance shall be performed on a regular or “as needed” basis.

e. The Permittee shall maintain records which demonstrate compliance with the activities listed in Conditions II.B.2.d(1) and (2).


3. **Monitoring and Recordkeeping Requirements**

a. When in operation, the Permittee shall conduct weekly opacity monitoring for the equipment under this Section in accordance with Condition III.D of Attachment “B”.

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

b. *The Permittee shall install, calibrate, maintain, and operate monitoring devices which can be used to determine daily the process weight of sand, gravel or crushed stone produced. The weighing devices shall have an accuracy of plus or minus 5 percent over their operating range.*


[Material permit conditions are indicated by underline and italics]

c. The Permittee shall maintain records of the daily production rate of gravel
or crushed stone produced.

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

C. Permit Shield


[A.A.C. R18-2-325]
ATTACHMENT "D": SPECIFIC CONDITIONS FOR CONCRETE BATCH PLANTS

I. APPLICABILITY

For the purposes of this permit, the concrete batch plant refers to portable or stationary concrete batch plant equipment with the crushing and screening plant covered by this air quality control permit.

II. CONCRETE BATCH PLANT REQUIREMENTS

Particulate Matter and Opacity

A. Emission Limits/Standards

1. The Permittee shall not cause to be discharged into the atmosphere from any concrete batch plant processes any plume or effluent which exhibits greater than 20 percent opacity.

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

2. Fugitive dust emissions from the concrete batch plant shall be controlled in accordance with Section VII 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 / Fly Ash / Lime Silos

   a. Baghouses, or equivalent, shall be operated in accordance with vendor specifications to control emissions vented by silos during the loading operations. 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 to ADEQ or the respective AQCD upon request.


   [Material permit conditions are indicated by underline and italics]

   b. Loading of storage silos shall be conducted in such a manner that the displaced air does not by-pass the baghouse and is not direct-vented to the atmosphere.

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

   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”;

   [A.A.C. R18-2-306.A.3.d]
(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 II.B.1.c(1) through (5).

2. Product Delivery System
   a. For Concrete Batch Plants utilizing truck-mix operations, the Permittee shall install and maintain a baghouse on the product delivery system to minimize visible emissions during material transfer to trucks.

2. Product Delivery System
   b. For all facilities, the Permittee shall install and maintain a rubber sleeve, baghouse, or equivalent on the product delivery system to minimize visible emissions during material transfer to trucks.

   c. The permittee shall operate and maintain the rubber sleeve, baghouse, or equivalent, 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.

3. Wet Suppression Systems
   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 II.B.3.a and b.


C. Monitoring, Recordkeeping and Reporting Requirements

1. When in operation, the Permittee shall conduct weekly opacity monitoring for the equipment under this Section in accordance with Condition III.D of Attachment “B”.

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

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 H₂O) across the baghouse. The records shall include the dates and time each reading was taken.


D. Permit Shield

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

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

III. 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.

[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.


D. Permit Shield

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

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

IV. REQUIREMENTS FOR BOILERS

A. Applicability

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

B. Operating Requirements

The Permittee shall not operate any boiler with a maximum firing capacity greater than 10 MMBtu per hour.

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

C. Fuel Limitation

1. The Permittee shall burn only natural gas, liquefied petroleum gas (butane or propane), on-specification used oil, or ultra-low sulfur diesel fuel in the boiler(s), as identified on the ATO.

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

2. If the Permittee is authorized to burn "on specification" used oil fuel only if it meets the following requirements:

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

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

Table 7: "On Specification" Used Fuel Oil Contaminant Thresholds

<table>
<thead>
<tr>
<th>Name of Pollutant</th>
<th>Limit</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>
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 above are not exceeded.

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

D. Particulate Matter and Opacity

1. Emission Limitations

a. 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.

b. 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 keep records of fuel supplier certifications. The certification shall contain information regarding the name of fuel supplier and 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]

b. The Permittee shall conduct monthly opacity monitoring of visible emissions emanating from the stack of the boilers, when in operation, in accordance with Condition III.D of Attachment “B”. Opacity monitoring is not required for natural gas fired boilers.

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

3. Permit Shield
E. Sulfur Dioxide

1. Emission Limitations and Standards
   a. The Permittee shall not emit or cause to emit more than 1.0 pound of sulfur dioxide per million Btu.
      [A.A.C. R18-2-724.E]
   b. While burning diesel fuel, the Permittee shall only burn ultralow sulfur fuel (sulfur content below 15 ppm by weight).
      [A.A.C. R18-2-306.A.2]

2. Monitoring, Recordkeeping and Reporting Requirements
   The Permittee shall keep records of fuel supplier certifications to demonstrate compliance with the sulfur content limit in Condition IV.E.1.b.
   [A.A.C. R18-2-306.A.3.c]

3. Permit Shield
   Compliance with the conditions of this Part shall be deemed compliance with A.A.C. R18-2-724.E.
   [A.A.C. R18-2-325]

F. Hazardous Air Pollutants

1. Applicability
   a. The requirements of this part are applicable to oil-fired boilers identified as subject to 40 CFR 63 Subpart JJJJJJ on the respective ATO.
      [40 CFR 63.11194]
   b. For the purpose of this Section, a new boiler is one which commenced construction or reconstruction after June 4, 2010.
      [40 CFR 63.11194(c)]
   c. For the purpose of this Section, an existing boiler is one which commenced construction or reconstruction on or before June 4, 2010.
      [40 CFR 63.11194(b)]

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

(i) The Permittee operating an existing oil-fired boiler shall conduct a tune-up of the boiler according to the procedures stated in Condition IV.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 IV.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 IV.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
c. Tune-up Procedures

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).

(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.

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

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

(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).

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

(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.

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

(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 IV.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:

[40 CFR 63.11225(c)(2)]

(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.

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 Section 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]

V. DIRECT-FIRED FUEL BURNING EQUIPMENT

A. Applicability

This Section is applicable to any direct-fired equipment, including vapor generators.

B. Fuel Limitations

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

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

C. 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 direct-fired 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 above.

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

2. Opacity

The opacity of any plume or effluent shall not be greater than 20 percent.

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

D. Permit Shield
Compliance with the conditions of this Section shall be deemed compliance with A.A.C. R18-2-702.B.3, 730.A.1.a and b.

[A.A.C. R18-2-325]
ATTACHMENT "E": ADDITIONAL CONDITIONS FOR OPERATIONS INSIDE MARICOPA COUNTY

I. APPLICABILITY

While operating in Maricopa County the Permittee shall comply with the Conditions set forth in Attachment "B", Attachment "C", Attachment "D", and Attachment "E". Whenever more than one Condition in this Attachment regulating the same emissions applies to any emissions unit, or whenever a Condition in this Attachment and a Condition in Attachment "B", Attachment "C", Attachment "D", and Attachment "E" regulating the same emissions applies to any emissions unit, the Condition or combination of Conditions resulting in the lowest emissions rate or lowest concentration of regulated air pollutants released to the atmosphere shall apply, unless otherwise specifically exempted or designated in the applicable permit Conditions.

[A.R.S. §49-402(D)]

II. FACILITY WIDE LIMITATION

A. Visible Emissions

1. Opacity

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 percent opacity for a period aggregating more than three minutes in any 60 minute period.

[Maricopa County Rule 300 §301]

2. Visible Emission Limitation Beyond Property Line

The Permittee shall not discharge, cause, or allow to be discharged visible emissions of particulate matter, including fugitive dust beyond the property line within which the emissions are generated.

[Maricopa County Rule 316 §306.2]

B. Gaseous and Odorous Emissions

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.

[Maricopa County Rule 320 §300]

C. Air Pollution Control Requirements

1. Material Containment Required

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.

[Maricopa County Rule 320 §302]
2. Stack Requirements

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.

[Maricopa County Rule 320 §303]

D. Operations and Maintenance (O&M) Plan Requirements

For the purposes of these conditions of this Attachment, an emission control system (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.

For each ECS that is used to comply with Maricopa County Rule 316 or an air pollution control permit, the Permittee shall:

a. Submit to the Director for approval an O&M Plan for each ECS and for each ECS monitoring device that is used pursuant to Maricopa County Rule 316 or an air pollution control permit. The O&M Plan(s) shall include all of the following information:

[Maricopa County Rule 316 §305.1.a]

(1) ECS equipment manufacturer name and model designation;

(2) ECS equipment serial number, or a unique identifier assigned by the owner; and

(3) Key system operating parameters, such as temperatures, pressures and/or flow rates, necessary to determine the ECS is functioning properly and operating within design parameters, as well as the acceptable operating range, monitoring frequency, and recording method for each operating parameter.

(4) Descriptions of maintenance procedures that will be performed on each ECS and ECS monitoring device and the frequency of each maintenance procedure

b. Provide and maintain, readily available on-site at all times, the approved O&M Plan(s) for each ECS and each ECS monitoring device that is used pursuant to these conditions of this Attachment.

[Maricopa County Rule 316 §305.1.b]

c. Install, maintain, and accurately calibrate monitoring devices described in the approved O&M Plan(s). The monitoring devices shall measure pressures, rates of flow, and/or other operating conditions necessary to determine if the control devices are functioning properly.

[Maricopa County Rule 316 §305.1.c]
[A.A.C. R18-2-306.01 and -331.A.3.c]
[State and Locally enforceable only]
d. Fully comply with all identified actions and schedules provided in each O&M Plan.

[Maricopa County Rule 316 §305.1.d]

E. Monitoring, Recordkeeping and Reporting Requirements

1. Opacity

   a. The Permittee shall conduct a weekly facility walk-through and observe visible emissions from all equipment capable of emitting visible emissions. The Permittee shall log the visual observations, including the date and time when the reading was taken, results of the readings, name of the person who took the readings, and any other related information.

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

   [State and Locally enforceable only]

   a. Opacity observations to measure visible emissions from activities regulated by Conditions III (excluding truck dumping directly into any screening operation, feed hopper, or crusher), and/or IV of this Attachment 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 51, Appendix M. The EPA test methods as they exist in the CFR are incorporated by reference in Appendix G of the Maricopa County Adopted Rules. Emissions shall not exceed the applicable opacity standards described in Conditions III and IV of this Attachment for a period aggregating more than three minutes in any 60-minute period.

   [Maricopa County Rule 316 §502.2.a]

2. Operational

   The Permittee shall comply with the following requirements. Records shall be retained for five years.

   [Maricopa County Rule 316 §501]

   a. Operational information required by Maricopa County Rule 316 shall be kept on-site, in written or electronic format, and in a complete and consistent manner on-site and shall be made available without delay to the Director upon request. Paper or electronic copies of records required by Maricopa County Rule 316 shall be made available to the Director upon request.

   [Maricopa County Rule 316 §501.1]

   b. General Data

   Daily records shall be kept for all days that process equipment is operating. Records shall include all of the following, as applicable:

   [Maricopa County Rule 316 §501.2.a]

   (1) Hours of operation;

   (2) Type of batch plant (wet, dry, central);
(3) Throughput per day of materials including sand, aggregate, and cement (tons/day);

(4) Volume of concrete produced per day (cubic yards/day) and amount of asphaltic concrete produced per day (tons/day);

(5) Amount of aggregate mined per day (tons/day);

(6) Amount of each nonmetallic mineral and amount of each dry material delivered per day (tons/day or cubic yards/day);

(7) For facilities that assert to be below the thresholds in Conditions VI.C.6.a and VI.C.6.e(1) of this Attachment, the number of aggregate trucks, mixer trucks, delivery trucks, and/or batch trucks exiting the facility; and

(8) Description of operating condition of process controls as required in Maricopa County Rule 316 §301.2(d).

c. The Permittee shall maintain all of the following records in accordance with the approved O&M Plan:

For Any ECS and Any ECS Monitoring Devices that are Used Under Maricopa County Rule 316 or Under an Air Pollution Control Permit:

(a) Periods of time that an approved ECS is operating to comply with the conditions in this permit;

(b) Periods of time that an approved ECS is not operating;

(c) Flow rates;

(d) Pressure drops;

(e) Other conditions and operating parameters necessary to determine if the approved ECS is functioning properly;

(f) Results of visual inspections;

(g) Correction action taken, if necessary; and

(h) Date of all service or maintenance related activities for each approved ECS.

3. When operating inside of Maricopa County, the Permittee shall maintain a copy of all earth moving permits obtained from Maricopa County on site and available for review upon request.

4. When operating inside of Maricopa County, the Permittee shall maintain a copy of
the most recently approved Dust Control Plan on-site and available for review upon request.


F. 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:

[Maricopa County Rule 316 §308]

1. Facility name and Permittee’s name;

2. Current number of the air quality permit or of authority to operate under a general permit;

3. Name and local phone number of person(s) responsible for dust control matters; and

4. Text stating: “Dust complaints? Call Maricopa County Air Quality Department-(Insert the accurate Maricopa County Air Quality Department complaint line telephone number).”

G. Permit Shield

Compliance with the conditions of Section II shall be deemed compliance with Maricopa County Rule 300 §301, Rule 316 §305.1, 306.2, 308, and Rule 320 §300, 302, 303, [A.A.C. R18-2-325]

III. CRUSHING AND SCREENING PLANT REQUIREMENTS

A. Applicability

The provisions of this Section shall apply to any commercial and/or industrial nonmetallic mineral processing plant and any related operations within Maricopa County. Compliance with the provisions of this Section shall not relieve the Permittee from complying with any other applicable rules, including New Source Performance Standards and National Emission Standards for Hazardous Air Pollutants. Whenever more than one rule, regulation, or emission limit applies to nonmetallic mineral processing and any related operations subject to Maricopa County Rule 316, the more stringent standard applies.

B. Particulate Matter and Opacity

1. Emission Limitations/Standards

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

      [Maricopa County Rule 316 §301.1.a]

      (1) Stack emissions exceeding 7 percent opacity; or

      (2) Containing more than 0.014 grains per dry standard cubic foot of particulate matter.
b. Fugitive dust emissions exceeding the applicable opacity limits in the following table:

<table>
<thead>
<tr>
<th>Emission Source</th>
<th>Opacity Limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Facilities that commenced construction, modification, or reconstruction</td>
<td></td>
</tr>
<tr>
<td>Before April 22, 2008</td>
<td>After April 22, 2008</td>
</tr>
<tr>
<td>Any transfer point on a conveying system</td>
<td>7%</td>
</tr>
<tr>
<td>Any crusher</td>
<td>15%</td>
</tr>
<tr>
<td>Truck dumping directly into any screening operation, feed hopper, or crusher</td>
<td>20%</td>
</tr>
<tr>
<td>Any other affected operation or process source</td>
<td>10%</td>
</tr>
</tbody>
</table>

2. Air Pollution Control Requirements

The Permittee shall implement process controls described in Condition III.B.2.a, b, c, and d, or shall implement process controls described in Condition III.B.2.a and e:

[Maricopa County Rule 316 §301.2]

a. Enclosed sides of all shaker screens;

[Maricopa County Rule 316 §301.2.a]

b. Permanently mount watering systems (including, but not limited to, spray bars, fogging system, or a misting system) on all of the points listed below, excluding wet material processing operations:

[Maricopa County Rule 316 §301.2.b]

(1) At every location of fugitive dust emissions from all crushers including, but not limited to, the inlet and outlet of all crushers;

(2) At the outlet of all shaker screens;

(3) Outlet of all material transfer points, excluding transfer points located within a surge tunnel;

(4) At the exit of each surge tunnel, unless a watering system is permanently mounted at all transfer points within the surge tunnel.

c. Operate water systems, as necessary, on the points listed in Conditions III.B.2.b of this Attachment to continuously maintain the applicable minimum moisture content listed below. Compliance shall be measured by conducting moisture testing as specified Condition III.B.2.f of this Attachment.

[Maricopa County Rule 316 §301.2.c]

(1) 4% minimum moisture content at all points in a process line, unless an alternative minimum moisture content has been approved by the Director.
(2) An alternative minimum moisture content requested in a permit application and approved by the Director and the Administrator prior to implementation. When requesting an alternative minimum moisture content, the Permittee shall submit to the Director documentation that justifies the alternative minimum moisture content. Documentation may include, but is not limited to: economic analyses, emissions rates, water availability, and technical feasibility.

d. Maintain watering system in good operating condition, as verified by daily inspection on days when process equipment is operating, and investigate and correct any problems before continuing and/or resuming operation of process equipment.

   [Maricopa County Rule 316 §301.2.d]

e. Enclose and exhaust the regulated process to a properly sized fabric filter baghouse.

   [Maricopa County Rule 316 §301.2.e]

f. Crushing and Screening Moisture Testing Requirements

(1) Moisture Testing Procedures: The Permittee shall conduct moisture tests as follows:

   (a) Moisture testing shall be conducted on aggregate material less than .25 inch in diameter at the following sampling points:

      [Maricopa County Rule 316 §312.1.a]

      (i) At the beginning of the process line from the feed entering the line;

      (ii) At a point between the initial shaker screen and the final stack point; and

      (iii) From each stacker point or material placed on the stacker conveyor containing aggregate material less than .25 inch in diameter.

      (iv) The Permittee may request in writing that moisture testing be conducted at sampling points other than the above points. In that request, the Permittee shall submit to the Director documentation regarding the requested sampling points. The request shall include the following explanation(s): (1) Safety issues (i.e. worker exposure to moving equipment), (2) proposed alternative sampling location(s) with explanation that such alternative sampling location(s) will ensure compliance with all other moisture testing procedures in the Attachment, and (3)
identification of such alternative sampling location(s) in the approved Dust Control Plan or in a revision approved to the Dust Control Plan.

(v) The Permittee may request in an application for an air pollution control permit, with explanation, an alternative plan that justifies conducting fewer soil moisture tests. In the request, the owner, operator, or person subject to Maricopa County Rule 316 shall submit to the Director documentation regarding conducting fewer soil moisture test that required, including, but not limited to, economics, emissions rates, water availability, and technical feasibility. In addition, the Permittee shall demonstrate that the proposed alternative compliance demonstration plan will be equivalent in determining compliance with the soil moisture content requirements. Prior approval from the Director and the Administrator shall be received before implementing the plan.

(b) Moisture testing shall be conducted in accordance with the following requirements:

[Maricopa County Rule 316 §312.1.b]

(i) Moisture testing shall be conducted in accordance with the requirements of ASTM C566-97 (2004) “Standard Test Method for Total Evaporable Moisture Content of Aggregate by Drying” with the exception that smaller sample portions may be used.

(ii) As an alternative to the Condition III.B.3.f(1)(b)(i), The Permittee may use the Speedy Moisture Meter after receiving written approval from the Director and after submitting to the Director a written request that includes the following information:

(a) A description of the alternative testing equipment, including the display range, maintenance requirements, and any limitations

(b) A correlation analysis conducted using 20 samples from the Speedy Moisture Meter and the results using ASTM C566-97 (2004). A separate correlation analysis shall be done for each unit (serial number shall be specified);

(c) A description of the calibration procedures that includes the following
information:

(i) Calibration of each Speedy Moisture Meter (serial number shall be specified) on at least a biweekly basis against ASTM C566-97 (2004) as a standard;

(ii) Identification of at least three sampling points per process line to be used for calibration in the Dust Control Plan required by this Attachment. The three sampling points shall be at the beginning of the process line, at a point between the primary shaker and the final stack point, and at the end of the process.

(d) An agreement to revert to ASTM C566-97 (2004) if the Speedy Moisture Meter results do not correlate with ASTM C566-97 (2004); and

(e) Modification of the site-specific O&M Plan or Dust Control Plan to include the information described in Condition III.B.2.f(1)(b)(ii)(c) and (d).

(2) Moisture Testing Frequency

[Maricopa County Rule 316 §312.2]

(a) If the Permittee is required to have in place a Fugitive Dust Control Technician according to Condition VI.D.1 of this Attachment, then soil moisture tests shall be conducted twice daily.

(b) If the Permittee is not required to have in place a Fugitive Dust Control Technician according to Condition VI.D.1 of this attachment, then soil moisture tests shall be conducted once daily.

(c) On days when moisture testing is required, the Permittee shall collect a sample from each location identified in the approved Dust Control Plan within one hour after startup of the crushing and screening operation.

(d) On days when twice daily moisture testing is required, the Permittee shall collect a sample from each location identified in the approved Dust Control Plan at 3 pm or within one hour before shutdown of the crushing and screening operation.
(e) When crushing and screening operations continue for more than 16 hours on a day when twice daily moisture testing is required, an additional soil moisture sample shall be collected from each sampling location identified in the approved Dust Control Plan such that soil moisture samples are collected no less frequently than once in every 8-hour period.

(3) Reduction in Moisture Testing Frequency

(Maricopa County Rule 316 §312.3)

(a) If the Permittee demonstrates that the applicable moisture contents listed in Condition III.B.2.c of this Attachment are maintained for a minimum of 20 consecutive soil moisture samples collected from each of the sampling locations identified in the approved Dust Control Plan, then soil moisture tests may be conducted weekly in accordance with the test methods described in Condition III.B.2.f(2) without prior approval from the Director.

(b) If the Permittee fails to comply with the opacity limitations described in Conditions III.B.1 or VI.B.1 of this Attachment and/or if two consecutive soil moisture tests result in a moisture level below the applicable moisture contents listed in Condition III.B.2.c of this Attachment, then the owner, operator, or person subject to Maricopa County Rule 316 shall resume the sampling frequency specified in Condition III.B.2.f(2) of this Attachment, as applicable.

(c) Each time a portable crushing operation or a portable screening operation is moved, the Permittee shall resume the sampling frequency specified in Condition III.B.2.f(2) of this Attachment, as applicable. The Permittee shall repeat the procedures in Condition III.B.2.f(3)(a) of this attachment each time the portable crushing or screening operation is moved before reducing the frequency of moisture testing.

(4) Moisture Testing Exemption

Moisture testing is not required on a crusher and/or screen plant that is enclosed and exhausted to a properly sized fabric filter baghouse.

(Maricopa County Rule 316 §312.4)

C. Monitoring, Record Keeping and Reporting Requirements

The Permittee shall comply with the following requirements. Records shall be retained for five years.

(Maricopa County Rule 316 §501)
1. Operational information required by Maricopa County Rule 316 shall be kept on-site, in written or electronic format, and in a complete and consistent manner and shall be made available without delay to the Director upon request. Paper or electronic copies of records required by Maricopa County Rule 316 shall be made available to the Director upon request.

   [Maricopa County Rule 316 §501.1]

2. Soil Moisture Testing

   [Maricopa County Rule 316 §501.2.b]

   a. The date, time, and location for each soil moisture sample collected;

   b. Results of each soil moisture test; and

   c. Corrective actions taken when soil moisture test results are below the applicable minimum moisture content in Condition III.B.2.c of this Attachment

D. Permit Shield

Compliance with the conditions of this Section shall be deemed compliance with the Maricopa County Rule 316 §301, 312, 501, 502.

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

IV. CONCRETE BATCH PLANT REQUIREMENTS

A. Applicability

This Section applies to concrete batching and material handling operations.

B. Particulate Matter and Opacity

1. Emission Limitations/Standards

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

   a. Stack emissions exceeding 5% opacity; or

   [Maricopa County Rule 316 §303.1.a]

   b. Fugitive dust emissions exceeding 10% opacity from any affected operation or process source, excluding truck dumping.

   [Maricopa County Rule 316 §303.1.b]

2. Air Pollution Control Requirements

   The Permittee shall implement the following process controls:

   a. On all dry material storage silo(s), install and operate an overflow warning system/device.

   [Maricopa County Rule 316 §303.2.a]

   b. On all dry material storage silos installed after June 8, 2005, install a properly sized fabric filter baghouse or equivalent device designed to meet a maximum outlet grain loading of 0.01 gr/dscf.
c. On dry mix concrete plant loading stations, when loading truck mixed product, the Permittee shall implement one of the following process controls:

   (1) Install and use a rubber fill tube;
   (2) Install and operate a water spray;
   (3) Install and operate a properly sized fabric filter baghouse or delivery system;
   (4) Enclose 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 each cement silo filling process/loading operation, the Permittee shall install a pressure control system designed to shut-off cement silo filling process/loading operation if pressure from delivery truck is excessive, as defined in the approved O&M Plan.

   e. On each dry material storage silo filling process/loading operation installed after November 7, 2018, install a pressure control system designed to shut-off the silo filling process/loading operation if pressure from the delivery truck is excessive, as defined in the approved O&M Plan.

C. Monitoring, Recordkeeping, and Reporting

The Permittee shall comply with the following requirements. Records shall be retained for five years.

   1. Operational information required by Maricopa County Rule 316 shall be kept on-site, in written or electronic format, and in a complete and consistent manner and shall be made available without delay to the Director upon request. Paper or electronic copies of records required by Maricopa County Rule 316 shall be made available to the Director upon request.

D. Permit Shield

Compliance with the conditions of Section IV shall be deemed compliance with Maricopa County Rule 316 §303.1.a, §303.1.b, §303.2.a, §303.2.b, §303.2.c, §303.2.d, §303.2.e, §501.1, and §501.2.a.

V. INTERNAL COMBUSTION ENGINES
A. Applicability

1. This Section applies to any spark-ignition engine or compression-ignition engine including stationary RICE used in cogeneration, with a rated brake horsepower (rated bhp) of greater than 125. This Section also applies to a combination of stationary RICE each with a rated bhp greater than 50 used at a source, whose maximum aggregate rated bhp is greater than 125.

   [Maricopa County Rule 324 §102.1]

2. In addition to this Section, a stationary RICE may be subject to New Source Performance Standards (NSPS) in Condition V and VI of Attachment “B” and/or National Emission Standards for Hazardous Air Pollutants (NESHAP) in Condition IV.D of Attachment “B”.

   [Maricopa County Rule 324 §102.2 and 102.3]

3. Exemptions

   a. The following types of stationary RICE are exempt from all of the requirements of Maricopa County Rule 316 but shall comply with Rule 300 (Visible Emissions) of these rules:

      [Maricopa County Rule 324 §103]

      (1) A stationary RICE used directly and exclusively for engine research including engine development, and subsequent engine performance verification for the purpose of either engine emission control techniques or engine efficiency improvements.

      [Maricopa County Rule 324 §103.1]

      (2) A non-emergency engine when it is operated by a manufacturer or distributor of such equipment for the purpose of performance verification and testing at the production facility.

      [Maricopa County Rule 324 §103.2]

      (3) A compressed gas stationary RICE used for solar testing and research programs.

      [Maricopa County Rule 324 §103.3]

      (4) A stationary RICE test stand used for evaluating engine performance.

      [Maricopa County Rule 324 §103.4]

4. Partial Exemptions for Emergency Engines

   A stationary RICE operated as an emergency engine, as defined in Section 200 of Maricopa County Rule 324, for any of the following reasons shall be exempt from Conditions V.C, V.D.1, V.D.2, and V.D.3 when:

   [Maricopa County Rule 324 §104]

   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.

   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 public health and safety.

c. Used for lighting airport runways.

d. Used for sewage overflow mitigation and/or prevention.

e. Used for reliability-related activities such as engine readiness, calibration, or maintenance or to prevent the occurrence of an unsafe condition during electrical system maintenance, as long as the total number of hours of the operation does not exceed 100 hours per calendar year per engine as evidenced by an installed non-resettable hour meter. For the purposes of this Section, hours of operation during the commissioning period do not count towards the 100 hour per calendar year limit on hours of operation for reliability-related activities.

f. Used as the non-emergency engine when the non-emergency engine has failed, but only for such time as is needed to repair the non-emergency engine. For the purposes of this exemption, if the non-emergency engine is not repaired and returned to service within 12 months, or if the emergency engine is used as the non-emergency engine for more than 50 hours, whichever occurs first, the emergency engine shall be reclassified as a non-emergency engine and shall comply with all requirements of this Section that are applicable to non-emergency engines.

g. Used to operate standby emergency water pumps for fire control that activate when sensors detect low water pressure.

5. Partial Exemptions for Low Usage Non-Emergency Engines

The following low usage non-emergency engines onsite and in use before June 23, 2021 shall be exempt from Conditions V.C, V.D.1, V.D.2, V.D.3, and V.E.6 of this attachment.

[Maricopa County Rule 324 §105]

a. Each engine with a rated bhp at or below 1000 that operates less than 200 hours per calendar year as evidenced by an installed non-resetting totalizing hour meter.

b. Each engine with a rated bhp above 1000 that operates less than 100 hours per calendar year as evidenced by an installed non-resetting totalizing hour meter.

6. Partial Exemption for Nonroad Engines

[Maricopa County Rule 324 §106]

Each nonroad engine shall comply with Maricopa County Rule 300 and Condition V.E.6 of this Attachment, but shall be exempt from all other requirements of this Section.

7. If a stationary RICE must be removed from service because such engine does not comply with the emission limits listed in Condition V.C of this attachment, then the stationary RICE shall be removed from service no later than June 23, 2022. The stationary RICE that replaces such engine shall comply with all applicable
B. Requirement for All Engines

1. Fuel Requirements

The Permittee shall comply with one of the following:

a. Use ultralow sulfur oil, except as provided below:
   
   [Maricopa County Rule 324 §301.1]
   
   (1) Engines that are not subject to 40 CFR 60 Subpart IIII or 40 CFR 63 Subpart ZZZZ may use existing low sulfur oil purchased (or otherwise obtained) prior to November 2, 2016 until depleted.
   
   (2) Engines that are subject to 40 CFR 60 Subpart IIII or 40 CFR 63 Subpart ZZZZ shall also comply with the fuel requirements in the applicable subpart.

b. Use any waste derived fuel gas that contains no more than 0.08% sulfur by weight, alone or in combination with other fuels.
   
   [Maricopa County Rule 324 §301.2]

c. Use gasoline that meets the sulfur standard of 80 ppm as a per-gallon cap.
   
   [Maricopa County Rule 324 §301.3]

d. Use natural gas, liquified petroleum gas (LPG), or any alternative fuel that contains no more than 0.05% sulfur by weight, alone or in combination with other fuels.
   
   [Maricopa County Rule 324 §301.4]

2. Maintenance Requirements

The Permittee shall maintain the Stationary RICE in accordance with the manufacturer's written instructions or in accordance with the maintenance schedule provided by the manufacturer’s authorized service provider. Alternatively, the Permittee shall conduct preventative maintenance according to the following schedule, include all of the following tuning procedures, if the engines is so equipped, and if such procedures are appropriate to the type of engine:

a. The following maintenance procedures shall be completed no less frequently than every 300 hours of operation (for engines that operate 300 hours per year or more) or at least every 12 months (for engines that operate less than 300 hours per year):
   
   [Maricopa County Rule 324 §302.1]
   
   (1) Clean the inlet air filter (if so equipped);
   
   (2) Change oil filter; and
   
   (3) Change the lubricating oil or conduct oil analysis to determine Total Base Number, viscosity, and percent water content. The lubricating oil must be replaced within 2 business days after the
analytical results are received in any of the following condemning limits are exceeded:

(a) Total Base Number is less than 30% of the Total Base Number of the oil when new;

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

(c) Percent water content (by volume) is greater than .5.

b. The following maintenance procedures shall be completed no less frequently than every 1,000 hours of operation (for engines that operate 1,000 hours per year or more) or at least once every 12 months (for engines that operate less than 1,000 hours per year):

   [Maricopa County Rule 324 §302.2]

   (1) Check the inlet air filter and replace as necessary;

   (2) Check all fuel filters and clean as necessary (except cartridge type fuel filters);

   (3) Check cartridge type fuel filters and replace as necessary;

   (4) Check and adjust the intake and exhaust valves;

   (5) Check and adjust the spark plugs (if so equipped);

   (6) Check and adjust the spark timing and dwell or fuel injection timing (if adjustable); and

   (7) Check and adjust the carburetor mixture (if adjustable).

c. The following maintenance procedures shall be completed no less frequently than every 3,000 hours of operation (for engines that operate 3,000 hours per year or more) or at least once every 12 months (for engines that operate less than 3,000 hours per year):

   [Maricopa County Rule 324 §302.3]

   (1) Check spark plugs and ignition points, and replace as necessary (if so equipped);

   (2) Check coolant and change as necessary (if so equipped); and

   (3) Check the exhaust system and repair all leaks and/or restrictions.

3. Opacity Standard

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

   [Maricopa County Rule 324 §303]

4. The Permittee of a stationary RICE that is not equipped with a non-resetting totalizing hour meter on June 23, 2021, and is not being removed from service
under Condition V.A.7 of this attachment, shall install and operate a non-resetting totalizing hour meter on each such engine no later than June 23, 2022.

[Maricopa County Rule 324 §402]

5. An equivalent replacement engine or an identical replacement engine shall be treated as the original stationary RICE that it replaces for the purposes of compliance with Maricopa County Rule 316.

[Maricopa County Rule 324 §305]

6. **The Permittee of a stationary RICE, Except for those engines being removed from service under Condition V.A.7 of this Attachment, shall install** and operate a non-resetting totalizing hour meter. If the non-resetting totalizing hour meter is found to be malfunctioning, operation of the engine shall:

[Maricopa County Rule 324 §306 and A.A.C. R 18-2-331.A.3.c]

| Material permit conditions are indicated by underline and italics |

a. Record hours of operation daily until the function of the hour meter is restored; and

b. Restore the function of the hour meter within two weeks. Or, if it not possible to restore the function of the hour meter within two weeks, the Permittee shall notify the Director in writing and provide a schedule for restoration of the function of the hour meter.

**C. Emission Standards for Non-Emergency & Non-Low Usage Non-Emergency Engines**

1. The Permittee of a compression-ignition engine that is rated above 250 bhp shall comply with the emission standards in the table below, as applicable, depending on the date the engine was manufactured or reconstructed (whichever occurred later) and the rated brake horse power of the engine:

[Maricopa County Rule 324 §304.1]

<table>
<thead>
<tr>
<th>Table 9: Compression-Ignition Emission Standards</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Manufacturer or Modified</strong></td>
</tr>
<tr>
<td>Prior to October 22, 2003</td>
</tr>
<tr>
<td>Prior to October 22, 2003</td>
</tr>
<tr>
<td>On or after October 22, 2003</td>
</tr>
</tbody>
</table>

* ppmvd emission standards are corrected to 15% oxygen.

2. The Permittee of a spark-ignition engine that is rated above 250 bhp shall comply with the emission standards in the table below of this Attachment, as applicable, depending on the date the engine was manufactured or reconstructed (whichever occurred later) and whether it is a lean-burn or rich-burn engine:

[Maricopa County Rule 324 §304.2]
Table 10: Spark-Ignition Emission Standards

<table>
<thead>
<tr>
<th>Spark-Ignition Emission Standards</th>
<th>Lean-Burn Engines</th>
<th>Rich Burn Engines</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Manufactured or Modified</strong></td>
<td><strong>Nitrogen Oxides (NO\textsubscript{X})</strong></td>
<td><strong>Volatile Organic Compounds (VOC)</strong></td>
</tr>
<tr>
<td>Prior to October 22, 2003</td>
<td>280 ppmvd or 4.0 g/bhp-hr or three-way catalyst</td>
<td>800 ppmvd or 5.0 g/bhp-hr or three-way catalyst</td>
</tr>
<tr>
<td>On or after October 22, 2003</td>
<td>110 ppmvd or 1.5 g/bhp-hr</td>
<td>Not Applicable</td>
</tr>
</tbody>
</table>

*The three-way catalyst shall provide a minimum of 80% control efficiency for NO\textsubscript{X} and CO for those engines fueled with natural gas, propane or gasoline. In addition, the three-way catalyst shall also provide a minimum of at least 50% control efficiency for VOC for those engines fueled by gasoline.

** ppmvd emission standards are corrected to 15% oxygen.

D. Compliance Determination

1. Non-Emergency and Non-Limited Use Non-Emergency Engine Requirements

   The Permittee of an engine subject to the requirements in Condition V.C of this Attachment shall demonstrate compliance using one of the following methods, as applicable:

   [Maricopa County Rule 324 §501.1]

   a. Provide documentation that the stationary RICE is certified by the manufacturer to comply with emission limits in 40 CFR 60 Subpart IIII or 40 CFR 60 Subpart JJJJ that are more stringent than the applicable emission limits in Condition V.C of this Attachment, and provide documentation that the engine is installed, operated, and maintained in accordance with the manufacturer's specifications.

   b. Conduct a performance test in accordance with Condition V.D.3 of this Attachment at least once every 5 years. The performance test shall demonstrate compliance with one of the following requirements:

      (1) The applicable emission limits in units of grams per brake horsepower-hour (g/bhp-hr); or

      (2) The applicable emission limits in units of ppmvd; or

      (3) The three-way catalyst provides a minimum of 80% control efficiency for NO\textsubscript{X} and CO for engines fueled with natural gas, propane or gasoline, and the three-way catalyst also provides a minimum of 50% control efficiency for VOC for engines fueled by gasoline.

   c. Provide documentation that the non-emergency engine was manufactured or reconstructed (whichever occurred later) prior to October 22, 2003 and
provide documentation that the non-emergency compression-ignition engine is equipped with a turbocharger with an aftercooler/intercooler.

d. Provide documentation that the non-emergency compression-ignition engine was manufactured or reconstructed (whichever occurred later) prior to October 22, 2003 and:

(1) Provide documentation that the injection timing has been set at 4 degrees below the factory setting for the engine. Written verification of the factory set timing, along with documentation that the engine timing has been delayed by 4 degrees must be submitted; or

(2) Provide documentation that the injection timing has been set at 4 degrees below the manufacturer’s standard timing of the engine. Written verification of the manufacturer’s standard timing of the engine prior to tuning for NOX control, along with documentation that the timing has been delayed by 4 degrees must be submitted; or

(3) Provide documentation that the injection timing has been set at 16 degrees below top dead center or less (if information regarding the manufacturer’s standard timing or factory set timing is not available).

2. Representative Performance Testing

The Permittee may demonstrate compliance with the applicable emission limits or control efficiency requirements in Condition V.C of this Attachment by conducting representative performance testing in accordance with Condition V.D.3 of this Attachment, provided all of the following requirements are satisfied:

[Maricopa County Rule 324 §501.3]

a. The engines are located at the same stationary source;

b. The engines were produced by the same manufacturer, have the same model number or other manufacturer’s designation in common, have the same rated capacity and operating specifications;

c. The engines are operated and maintained in a similar manner;

d. At least one engine or one third of the engines in the specified group, whichever is greater, are tested each time a performance test is required;

e. Each time a performance test is required, different engines are tested so that all engines in the specified group are tested before any engines in the representative group are retested; and

f. If emissions from any engine in the specified group exceed an applicable emission limit, or if the control efficiency for any pollutant controlled by a three-way catalyst is lower than the required control efficiency, the Permittee shall demonstrate that each engine in the specified group is in
compliance with the applicable limits by conducting a performance test on each engine in the specified group.

3. Performance Test Conditions

Performance tests shall be conducted using the test methods listed in Section 503 of Maricopa County Rule 324. Testing for stationary RICE shall be completed at either the maximum operating load or no less than 80% of the rated bhp. If the Permittee demonstrates to the Director that the engine cannot operate at these conditions, then emissions source testing shall be performed at the highest achievable continuous rated bhp or under the typical duty cycle or typical operational mode of the engine. The result of the performance test shall be the arithmetic mean of the result of the three test runs. Each test run shall have a minimum sample time of one hour.

[Maricopa County Rule 324 §501.4]

4. Fuel-Sulfur Verification

The Permittee of an engine fueled with gasoline shall submit documentation that gasoline was purchased within the United States. The Permittee of an engine fueled with diesel, natural gas, LPG, or an alternative fuel shall submit one of the following documents listing the accurate sulfur content of the fuel based on enforceable test methods as approved by the Administrator to determine the sulfur content:

a. Fuel receipts, or
b. Contract specifications, or
c. Pipeline meter tickets, or
d. Fuel supplier information, or
e. Purchase records, or
f. Test results of the fuel for sulfur content

[Maricopa County Rule 324 §501.5]

5. Waste Derived Fuel Gas – Sulfur Verification

The Permittee shall submit documentation of the sulfur content of the waste derived fuel gas to the Director upon request. The sulfur content of gaseous fuels shall be determined by South Coast Air Quality Management District Method 307-91 Determination of Sulfur in a Gaseous Matrix.

[Maricopa County Rule 324 §501.5]

E. Recordkeeping Requirements

The Permittee shall comply with the following requirements and retain records for at least 5 years:

[Maricopa County Rule 324 §502]

1. Maintain a list of stationary RICE that includes all of the following information
for each stationary RICE: combustion type (compression-ignition, or lean-burn spark-ignition, or rich-burn spark-ignition); manufacturer; model designation, rated bhp, serial number, and the location of each engine at the facility. If the equipment list associated with the current permit includes all of the required information for each stationary RICE located at the facility, this requirement may be fulfilled by keeping a complete copy of the current permit, including the equipment list, in a readily accessible location at the facility where the engines are located, and by providing the equipment list to the Director upon request.

[Maricopa County Rule 324 §502.1]

2. Operation Records

The Permittee shall maintain records of the monthly and 12-month rolling total hours of operation for each stationary RICE. For emergency engines, the operation records shall also include:

[Maricopa County Rule 324 §502.2]

a. Monthly and annual hours of operation for reliability related activities such as engine readiness, calibration, or maintenance, or to prevent the occurrence of an unsafe condition during electrical system maintenance; and

b. The number of operating hours for emergency use and an explanation for the emergency use.

3. The Permittee shall maintain records of all stationary RICE maintenance (including the date when maintenance was performed and the maintenance procedures that were performed). If the Permittee demonstrates compliance with Condition V.C.1 using the method specified in Condition V.D.1.d of this attachment, the maintenance record shall include documentation of the injection timing setting each time maintenance is performance on the stationary RICE. In addition, one of the following documents shall be available at all times at the facility where the stationary RICE is located:

[Maricopa County Rule 324 §502.3]

a. The manufacturer’s written instructions for operations and maintenance of each stationary RICE;

b. A written maintenance schedule provided by the manufacturer’s authorized service provider; or

c. A written maintenance plan indicating which of the tuning procedures listed in Condition V.B.2 of this attachment are applicable to each stationary RICE.

4. Fuel Records

[Maricopa County Rule 324 §502.4]

a. Maintain records of the type and amount of fuel purchased for use in the stationary RICE (e.g. receipts, pipeline tickets, or bills of loading); and

b. Maintain records of the sulfur content of any fuel that is used in the stationary RICE, excluding gasoline. For gasoline, maintain records that the
fuel was purchased in the United States.

5. Manufacturer’s Operation and Maintenance Instructions
   [Maricopa County Rule 324 §502.5]

   The Permittee that is subject to Condition V.B.2 of this Attachment shall keep manufacturer’s written instructions for operation and maintenance of the engine available at the facility where the engine is located at all times. If the manufacturer’s written instructions are not available, the Permittee shall keep a preventative maintenance plan, indicating which procedures in Condition V.B.2 of this attachment are appropriate to the engine, available at the facility where the engine is located at all times.

6. Nonroad Engine Records
   [Maricopa County Rule 324 §502.6]

   a. Date that each engine is brought to the stationary source; and
   b. For engines located at a stationary source greater than 14 consecutive days:
      (1) Make, model, serial number, and rated capacity (bhp hours) of the engine; and
      (2) Date of each instance in which the engine is moved from its existing location, and the reason why the engine was moved; and
      (3) Fuel type and sulfur content of the fuel.

F. Permit Shield

   Compliance with the conditions of this Section shall be deemed compliance with the Maricopa County Rule 324 §301, 302, 303, 304, 305, 306, 401, 402, 501 and 502.
   [A.A.C. R18-2-325]

VI. FUGITIVE DUST REQUIREMENTS

A. Applicability

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

B. Emission Limitations

   An owner, operator, or person subject to Maricopa County Rule 316 shall comply with the following limitations at all times and in all areas of a site, unless otherwise specified.
   [Maricopa County Rule 316 §306]

1. 20% Opacity Limitation

   For emissions that are not already regulated by an opacity limit, the Permittee shall not discharge, cause or allow to be discharge into the ambient air fugitive dust emissions exceeding 20% opacity, in accordance with the test methods described
in Appendix C of the Fugitive Dust Test Methods of the Maricopa County Adopted Rules.

[Maricopa County Rule 316 §306.1]

2. Wind-Blown Dust

The fugitive dust emission limitations described Conditions VI.B.1 and VI.B.2 shall not apply to wind-blown dust, if the Permittee meets the following conditions:

a. Has implemented the fugitive dust control measures described in Condition VI.C below as applicable, and the fugitive dust emissions cannot be prevented by better application, operation, or maintenance of these fugitive dust control measures

[Maricopa County Rule 316 §306.3.a]

b. Has compiled and retained records, in accordance with Condition VI.D.5 below; and

[Maricopa County Rule 316 §306.3.b]

c. Has implemented the following control measures, as applicable:

[Maricopa County Rule 316 §306.3.c]

(1) For an active operation, implement one of the following fugitive dust control measures;

[Maricopa County Rule 316 §306.3.c(1)]

(a) Cease operation of any equipment or activity that may contribute to an exceedance of the fugitive dust emission limitations described in Condition VI.B.1 of this Attachment; or

(b) Apply water or other suitable dust suppressant to keep the soil visibly moist.

(2) For an inactive open storage pile, implement one of the following fugitive dust control measures:

[Maricopa County Rule 316 §306.3.c(2)]

(a) Maintain a soil crust by applying water or other suitable dust suppressant or by implementing another fugitive dust control measure, in sufficient quantities to meet the stabilization standards described in Condition VI.E.2.b below this Attachment.

(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:

[Maricopa County Rule 316 §306.3.c(3)]

(a) Uniformly apply and maintain surface gravel or a dust suppressant other than water; or
(b) Maintain a visible crust by applying water or other suitable dust suppressant or by implementing another fugitive dust control measure, in sufficient quantities to meet the stabilization standards described in Condition V.D.2.b of this Attachment.

3. Stabilization Standards for Unpaved Roads and Unpaved Parking Lots and Unpaved Staging Areas:

The Permittee shall not allow silt loading equal to or greater than 0.33 oz/ft$^2$ for unpaved roads, unpaved parking lots, and unpaved staging areas. However, if silt loading is equal to or greater than 0.33 oz/ft$^2$, the Permittee shall not allow:

[Maricopa County Rule 316 §306.4]

a. Silt content to exceed 6% for unpaved roads; or

b. Silt content to exceed 8% for unpaved parking lots and staging areas.

4. Stabilization Standards for all other areas

The Permittee shall stabilize all areas of the facility, excluding unpaved roads, unpaved parking lots, and unpaved staging areas, in order to meet at least one of the standards listed below, as applicable:

[Maricopa County Rule 316 §306.5.a]

a. Maintain visible soil moisture;

b. Maintain a soil crust;

c. Maintain a threshold friction velocity (TFV) for disturbed surface areas corrected for non-erodible elements of 100 cm/second or higher;

d. 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%;

e. 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%;

f. 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;

g. Maintain a percent cover that is equal to or greater than 10% for non-erodible elements; or

h. Comply with a standard of an alternative test method, upon obtaining the written approval from the Director and the Administrator.

i. If a facility contains more than one type of visibly distinguishable
stabilization characteristics, soil textures, vegetation, or other characteristics, each representative surface area will be evaluated separately for stability, in accordance with the appropriate test methods described in Condition VI.E.2.b below and in Appendix C-Fugitive Dust Test Methods of these rules.

C. Air Pollution Control Requirements

The Permittee shall implement the fugitive dust control measures described in Conditions VI.C.1 through VI.C.12 below, as applicable. Any fugitive dust control measure that is implemented must achieve the applicable standard(s) described in Condition VI.B above, as determined by the corresponding test method(s), as applicable, and must achieve other applicable standard(s) set forth in this Section.

The Permittee 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 Section.

[Maricopa County Rule 316 §307]

1. Open Storage Piles and Material Handling

The Permittee shall implement all of the following fugitive dust control measures, as applicable, in compliance with Condition VI.B.1 through VI.B.4 of this Attachment. For the purpose of this Section, open storage pile(s) and material handling does not include berms that are installed to comply with 30 CFR 56.93000. However, such berms shall be installed and maintained in compliance with Conditions VI.B.1, VI.B.2, and VI.B.4 of this Attachment.

[Maricopa County Rule 316 §307.1]

a. Prior to, and/or while conducting loading, unloading, and excavating operations, implement one of the following fugitive dust control measures:

   [Maricopa County Rule 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, unloading, and excavating operations, implement one of the following fugitive dust control measures:

   [Maricopa County Rule 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; or

(7) Maintain a visible crust.

c. When installing new open storage pile(s), the Permittee shall implement all of the following fugitive dust control measures:

[Maricopa County Rule 316 §307.1.c]

(1) Install the open storage pile(s) 25 feet or more from the property line. The Permittee may be allowed to install the open storage pile(s) less than 25 feet from the property line, if the Permittee can demonstrate to the Director that there is not adequate space to install the open storage pile(s) 25 feet or more from the property line. Such demonstration shall be made in writing and approved by the Director; and

(2) Limit the height of the open storage pile(s) to less than 45 feet.

d. For any open storage pile(s) that are more than eight feet high and are not covered, the Permittee shall install, use, and maintain a water truck or other method that is capable of completely wetting the surfaces of the open storage pile(s).

[Maricopa County Rule 316 §307.1.d]

2. Unpaved Parking Lots, Staging Areas, and Areas Where Support Equipment and Vehicles Operate

The Permittee shall implement one of the following fugitive dust control measures on areas other than the areas identified in Condition VI.C.3 or VI.C.4 of this Attachment where loaders, support equipment, and vehicles operate.

[Maricopa County Rule 316 §307.2]

a. Apply and maintain water;

b. Apply and maintain a dust suppressant, other than water; or

c. Apply and maintain a layer of washed gravel that is at least six inches deep.

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 haul/access roads. Compliance with the provisions of Condition VI.C.3 of this Attachment shall not relieve the Permittee from complying with any other federally
enforceable requirements (i.e., a permit issued under Section 404 of the Clean Water Act).

[Maricopa County Rule 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) Install and maintain a paved surface;

(4) Apply and maintain a layer of washed gravel that is six inches deep;

(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 VI.C.3.a can be technically and feasibly implemented, then the Permittee shall maintain a distance of 25 feet or more between the property line and 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.

[Maricopa County Rule 316 §307.3.b]

4. On-Site Traffic

a. The Permittee shall require all batch trucks and delivery trucks to remain on roads with paved surfaces or cohesive hard surfaces.

[Maricopa County Rule 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.

[Maricopa County Rule 316 §307.4.b]

c. The Permittee shall require all batch trucks and delivery trucks to exit the facility/operation only through exits that comply with the trackout control device requirements in Condition VI.C.6 of this Attachment.

[Maricopa County Rule 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.

[Maricopa County Rule 316 §307.4.d]

5. Hauling and/or Transporting Bulk Material

a. When hauling and/or transporting bulk material off-site, the Permittee shall implement all of the following control measures:
(1) Load all haul trucks such that the freeboard is not less than three inches;

(2) Prevent spillage or loss of bulk material from holes or other openings in the cargo compartment’s floor, sides, and/or tailgate(s); and

(3) Cover haul trucks with a tarp or other suitable closure.

[Maricopa County Rule 316 §307.5.a]

b. When hauling and/or transporting bulk material within the boundaries of the facility, the Permittee shall implement one of the following control measures:

(1) Limit vehicle speed to 15 miles per hour or less while traveling within the facility;

(2) Apply water to the top of the load; or

(3) Cover haul trucks with a tarp or other suitable closure.

[Maricopa County Rule 316 §307.5.b]

c. When hauling and/or transporting bulk material within the boundaries of a facility and crossing or accessing an area accessible to the public, the Permittee shall implement all of the following control measures:

(1) Load all haul trucks such that the freeboard is not less than three inches;

(2) Prevent spillage or loss of bulk material from holes or other openings in the cargo compartment’s floor, sides, and/or tailgate(s); and

(3) Cover haul trucks with a tarp or other suitable closure

[Maricopa County Rule 316 §307.5.c]

6. Trackout Control Devices, Trackout, and Spillage

a. Trackout Control Devices for Facilities with 60 or More Trucks Exiting on Any Day

The Permittee shall install, maintain, and use a rumble grate and wheel washer, in accordance with all of the following conditions, as applicable at a permanent facility with 60 or more aggregate trucks, mixer trucks, delivery trucks, and/or batch trucks exiting a facility on any day onto paved areas accessible to the public

(1) The Permittee shall locate a rumble grate within 10 feet from a wheel washer.

[Maricopa County Rule 316 §307.6.a(1)]

(a) The rumble grate and wheel washer shall be located no
less than 30 feet prior to each exit that leads to a paved area accessible to the public and that is used by aggregate trucks, mixer trucks, delivery trucks, and/or batch trucks.

(b) The Permittee may be allowed to install a rumble grate and wheel washer 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 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, 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 Conditions VI.C.6.a(1) through VI.C.6.a(6), and is approved in the Dust Control Plan for the facility.

(2) The Permittee shall ensure that all aggregate trucks, mixer trucks, delivery trucks, and/or batch trucks exit the facility via the rumble grate first and then the wheel washer.

[Maricopa County Rule 316 §307.6.a(2)]

(3) The Permittee shall post a sign by the rumble grate and wheel washer to designate the speed limit as 5 miles per hour.

[Maricopa County Rule 316 §307.6.a(3)]

(4) The Permittee shall pave the roads from the rumble grate and wheel washer to the facility exits leading to paved areas accessible to the public.

[Maricopa County Rule 316 §307.6.a(4)]

(5) The Permittee shall ensure that all aggregate trucks, mixer trucks, delivery trucks, and/or batch trucks remain on the paved roads between the rumble grate and wheel washer and the facility exits leading paved areas accessible to the public.

[Maricopa County Rule 316 §307.6.a(5)]

(6) An owner, operator, or person subject to Maricopa County Rule 316 shall have a water pressure gauge available on-site to measure nozzle pressure if a vehicle wash and/or cosmetic wash is substituted for a wheel washer.

[Maricopa County Rule 316 §307.6.a(6)]

b. Trackout Control Devices for Facilities with Less than 60 Trucks Exiting on Any Day:
A Permittee not subject to Condition VI.C.6.a of this Attachment, shall install, maintain, and use a rumble grate, wheel washer, or truck washer in accordance with all of the following:

(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 area accessible to the public and that is used by aggregate trucks, mixer trucks, delivery trucks, and/or batch trucks.

(a) The Permittee may be allowed to install a rumble grate, wheel washer, or truck washer less than 30 feet prior to each exit if the Permittee demonstrates to the Director that there is not adequate space to install a rumble grate, wheel washer, or truck washer no less than 30 feet prior to each exit and that a rumble grate, wheel washer, or truck washer at a shorter distance will be adequate to prevent trackout.

(2) The Permittee shall ensure that all aggregate trucks, mixer trucks, delivery 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/internal roads are unpaved between the rumble grate, wheel washer, or truck washer and the facility exits leading to 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 areas accessible to the public. The gravel pad shall be flushed with water or completely replaced as necessary to comply with the trackout threshold described in Condition VI.C.6.d.

Maricopa County Rule 316 §307.6.b]

c. Exemptions from Trackout Control Device Requirements

(1) The Permittee shall not be required to install, maintain, and use a wheel washer at a facility that 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 Permittee shall install, maintain, and use a rumble grate.

[Maricopa County Rule 316 §307.6.c(1)]

(2) The Permittee shall not be required to install, maintain, and use a wheel washer at a facility that is less than 5 acres in land size and handles recycled asphalt and recycled concrete exclusively. The Permittee shall install, maintain, and use a rumble grate and a gravel pad on all unpaved roads leading to the facility exits leading to paved areas accessible to the public.

[Maricopa County Rule 316 §307.6.c(2)]

(3) The Permittee shall not be required to install, maintain, and use a
An owner, operator, or person subject to Maricopa County Rule 316 shall not be required to install, maintain, and use a wheel washer at a facility that has a minimum of ¼ mile paved internal roads leading from a rumble grate to the facility exits leading to paved areas accessible to the public. 

[Maricopa County Rule 316 §307.6.c(3)]

(4) An owner, operator, or person subject to Maricopa County Rule 316 shall not be required to install, maintain, and use a wheel washer at a facility that meets the definition of infrequent operations, as defined in Section 238 of Maricopa County Rule 316. An owner, operator, or person subject to Maricopa County Rule 316 shall install, maintain, and use a rumble grate and a gravel pad. 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 areas accessible to the public. An owner, operator, or person subject to Maricopa County Rule 316 shall keep records in accordance with Section 500 of Maricopa County Rule 316, as applicable. An owner, operator, or person subject to Maricopa County Rule 316 shall 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 owner, operator, or person subject to Maricopa County Rule 316 shall comply with Condition VI.C.6 of this Attachment, as applicable. 

[Maricopa County Rule 316 §307.6.c(4)]

(5) An owner, operator, or person subject to Maricopa County Rule 316 shall not be required to install, maintain, or use a wheel washer, rumble grate, or other trackout control device specified in Conditions VI.C.6.a through VI.C.6.b of this Attachment, where the only possible fugitive dust release from the facility may be generated from a process that is otherwise vented or controlled through an approved emission control system and provided the following controls are in place: 

[Maricopa County Rule 316 §307.6.c(5)]

(a) A paved surface is installed and maintained on all internal travel, parking, and vehicle maneuvering areas; 

(b) All emissions from processes that create dust are captured by an approved emission control system operated in accordance with Section 305.1 of Maricopa County Rule 316; 

(c) All dry material storage silos are equipped with an overflow warning system/device and a pressure control system which prevents spillage during silo loading; 

(d) All material from rail car bottom dumping, for rail car unloading, is contained in areas where no vehicle use or maneuvering is permitted; and 

(e) All material transfer operations are conducted in a manner that prevents spillage of material to the ground.
d. **Trackout Distance**

(1) 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.

   [Maricopa County Rule 316 §307.6.d(1)]

(2) The Permittee shall clean up all other trackout at the end of the workday.

   [Maricopa County Rule 316 §307.6.d(2)]

e. **Cleaning Paved Roads Identified in the Dust Control Plan**

The Permittee shall clean all paved roads identified in the Dust Control Plan for a facility in accordance with all of the following as applicable:

   [Maricopa County Rule 316 §307.6.e]

(1) If the Permittee at a facility with 60 or more aggregate trucks, mixer trucks, delivery trucks, and/or batch trucks exiting the facility on any day 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 at a facility with less than 60 aggregate trucks, mixer trucks, delivery 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, 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. On the days that paved roads are not swept, 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, The Permittee shall remove the dirt and/or other bulk material from the paved internal road by the end of the work day.

(3) The Permittee, who purchases street sweepers after June 8, 2005, shall purchase street sweepers that meet the criteria of PM$_{10}$ efficient South Coast Air Quality Management Rule 1186 certified street sweepers.

(4) The Permittee shall use South Coast Air Quality Management Rule 1186 certified street sweepers to sweep paved roads at a new facility.

7. **Weed Abatement by Discing or Blading**

The Permittee shall implement all of the following fugitive dust control measures before, during, and after weed abatement by discing or blading:

   [Maricopa County Rule 316 §307.7]

a. Before weed abatement by discing or blading occurs, apply water;
b. While weed abatement by discing or blading is occurring, apply water; and

c. After weed abatement by discing or blading occurs, pave, apply gravel, apply water, apply a suitable dust suppressant other than water, or establish vegetative ground cover.

8. Demolition

The Permittee shall implement all of the following fugitive dust control measures for demolition activities:

a. Apply water to demolition debris immediately following demolition activity; and

b. After demolition, apply water to all soil surfaces to establish a visible crust and to prevent wind erosion.

9. Blasting Operations

The Permittee shall pre-water and maintain surface soils in a stabilized condition where support equipment and vehicles will operate when conducting blasting operations.

10. Other Dust-Generating Operations

The Permittee shall implement the following control measures, as applicable, when conducting dust-generating operations not specifically listed in Condition VI.C.1 through VI.C.9 above, or when a dust-generating operation is finished for a period of 30 days or longer:

a. Before disturbed surface areas are created, implement one of the following control measures:

(1) Pre-water site to depth of cuts, allowing time for penetration; or

(2) Phase work to reduce the amount of disturbed surface areas at any one time.

b. While disturbed surface areas are being created, implement one of the following control measures:

(1) Apply water or other suitable dust suppressant other than water to keep the soil visibly moist;

(2) Apply water to maintain a soil moisture content at a minimum of 12%, as determined by ASTM Method D2216-05 or other equivalent method as approved by the Director and the Administrator. For areas that have optimum moisture content for compaction of less than 12%, as determined by ASTM Method D1557-02e1 or other equivalent method approved by the Director.
and the Administrator, maintain at least 70% of the optimum soil moisture content; or

(3) Implement control measures described in Condition VI.C.10.b(1) or Condition VI.C.10.b(2) of this attachment and construct fences or three-foot to five-foot high wind barriers with 50% or less porosity adjacent to roadways or urban areas to reduce the amount of wind-blown material leaving a site.

c. When a dust-generating operation is finished for a period of 30 days or longer, the owner, operator, or person subject to Maricopa County Rule 316 shall implement one of the following control measures on the disturbed surface area within ten days after cessation nonmetallic mineral processing, related operations, or any other dust generating operations.

[Maricopa County Rule 316 §307.10.c]

(1) Pave, apply gravel, or apply a suitable dust suppressant other than water;

(2) Establish vegetative ground cover;

(3) Implement control measures described in Condition VI.C.10.c(1) or Condition VI.C.10.c(2) of this attachment and restrict vehicle access to the area;

(4) Apply water and prevent access by fences, ditches, vegetation, berms, or other suitable barrier or means sufficient to prevent vehicle access as approved by the Director;

(5) Restore area such that the vegetative ground cover and soil characteristics are similar to adjacent or nearby undisturbed native conditions.

11. Nighttime Operations

The Permittee shall implement, maintain, and use fugitive dust control measures between sunset and sunrise so as to meet all of the applicable requirements in Maricopa County Rule 316, and shall identify in the Dust Control Plan such fugitive dust control measures.

[Maricopa County Rule 316 §307.11]

12. Soil Moisture

If water is the chosen control measure in an approved Dust Control Plan, the Permittee shall operate a water application system (e.g. a water truck) at the facility while conducting any operations that have the potential to generate fugitive dust emissions, unless a visible crust is maintained or the soil is sufficiently damp to prevent loose grains of soil from becoming dislodged.

[Maricopa County Rule 316 §307.12]

D. 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 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:

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 the conditions of this Attachment

   [Maricopa County Rule 316 §309.1]

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.

   [Maricopa County Rule 316 §309.2]

c. Be authorized by the Permittee to install, maintain, and use fugitive dust control measures, deploy resources, and shutdown or modify equipment or operations as needed.

   [Maricopa County Rule 316 §309.3]

d. Be on-site at all times during primary dust-generating operations related to the purposes for which the permit was obtained.

   [Maricopa County Rule 316 §309.4]

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.

   [Maricopa County Rule 316 §309.5]

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.

   [Maricopa County Rule 316 §309.6]

2. Basic Dust Control Training Class

   a. At least once every three years, the plant manager, foreman, 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_{10} emissions from dust-generating operations, shall successfully complete a Basic Dust Control Training Class conducted or approved by the Director.

   [Maricopa County Rule 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.
c. Completion of the Comprehensive Dust Control Training Class, as required in Condition VI.D.2 of this Attachment, shall satisfy the requirement of Section VII of this Attachment.

d. For water truck drivers hired on or after November 7, 2018, basic training is required within 60 days from the date of hire unless such time period is extended by the Director, upon written request, for good cause.

3. Opacity Monitoring

a. Opacity monitoring of fugitive visible emissions shall be conducted in accordance with the test methods described in Appendix C (Fugitive Dust Test Methods) of the Maricopa County Adopted Rules.

b. A certified Method 9 observer shall conduct a weekly visual survey of visible emissions from the fugitive sources. The Permittee shall keep records of the name of observer, date, time, and result of the survey and observation.

c. If the observer sees a plume from a fugitive source that on an instantaneous basis appears to exceed 20%, then the observer shall, if practicable, take a Method 9 observation of the plume in accordance with Appendix C (Fugitive Dust Test Methods) of the Maricopa County Adopted Rules.

d. If the opacity of the plume is less than 20%, the observer shall make a record of the following:

(1) Location, date, and time of the observation; and

(2) The results of the Method 9 observation.

e. If the opacity of the plume exceeds 20%, then the Permittee shall do the following:

(1) Adjust or repair the controls or equipment to reduce opacity to below 20%; and

(2) Report it as an excess emission under Section XII of Attachment “A”.

4. Dust Control Plan

a. The Permittee shall submit, to the Director, a Dust Control Plan that includes, at a minimum, the following information:
(1) Name(s), address(es), and phone numbers of person(s) responsible for the submittal and implementation of the Dust Control Plan and responsible for the dust-generating operation.

(2) Equipment associated with any process fugitive emissions to be implemented, in order to comply with Maricopa County Rule 316 §301, 302, and 303.

(3) Fugitive dust control measures to be implemented, in order to comply with Maricopa County Rule 316 §305, 306, and 307.

(4) Appropriate control measures, or a combination thereof, for every actual and potential source of fugitive dust; and

(5) Fugitive dust control measures to be implemented for other affected operations not identified in Maricopa County Rule 316, as applicable.

(6) Installation date of trackout control device, if applicable;

(7) Dust suppressants to be applied, including all of the following product specifications or label instructions for approved usage:

(a) Method, frequency, and intensity of application;

(b) Type, number, and capacity of application equipment; and

(c) Information on environmental impacts and approvals or certifications related to appropriate and safe use for ground application.

(8) Operation and maintenance procedures for process controls and fugitive dust control measures, including but not limited to, gravel pads, wheel washers, truck washers, rumble grates, watering systems, and street sweepers, that are used to comply with Maricopa County Rule 316 or an air pollution control permit.

(9) A drawing, on 8½” x 11” paper, that shows all of the following information:

(a) Property boundaries and project site boundaries with linear dimensions;

(b) Location, linear dimensions, and specific surfaces treatment(s) and/or control measures utilized (i.e., install and maintain a paved surface or a cohesive hard surface) for staging areas, open storage piles, haul/access roads, parking areas, and permanent areas of the facility;

(c) Location and type of trackout control device, if applicable;
(d) Nearest public roads;
(e) North arrow;
(f) Planned exit locations onto areas accessible to the public; and
(g) Unpaved parking lot(s).


(11) A process diagram that identifies the progression of material containing aggregate material less than 0.25 inch in diameter through the process and that includes all of the following information:

(a) Identification of all screen outlets of aggregate material less than 0.25 inch in diameter;
(b) Identification of all crusher outlets of aggregate material less than 0.25 inch in diameter;
(c) Identification of all stacker points of aggregate material less than 0.25 inch in diameter;
(d) Identification of sample points for soil moisture tests required by Section 312 of Maricopa County Rule 316; and
(e) Identification of the applicable minimum soil moisture content required by Section 301.2(c) of Maricopa County Rule 316 for each sample point for soil moisture tests.

b. The Permittee shall submit to the Director a revised Dust Control Plan at each of the following times:

[Maricopa County Rule 316 §311.2]

(1) At the time such that the Permittee submits an application for an air pollution control permit to the Director;

(2) Prior to commencing dust generating operations, nonmetallic mineral processing, or any related operations in areas of a facility that were not previously identified in the approved Dust Control Plan;

(3) Prior to installing, maintaining, or using new roads (excluding new roads within a pit), new parking areas, or new staging areas that were not previously identified in the approved Dust Control Plan;
(4) Prior to modifying any dust control measures specified in the approved Dust Control Plan;

(5) Prior to implementing changes to the soil moisture testing protocol in the approved Dust Control Plan, except as allowed in Maricopa County Rule 316 §312; and

(6) Prior to commencing construction or demolition projects that were not previously described in the approved Dust Control Plan.

c. 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 VII of this Attachment.

[Maricopa County Rule 316 §311.3]

d. The Director shall provide written notification to the owner, operator, or person subject to Maricopa County Rule 316, if the Director determines any of the following:

[Maricopa County Rule 316 §311.4]

(1) That a Dust Control Plan is incomplete;

(2) That the Dust Control Plan is conditionally approved; or

(3) That an approved Dust Control Plan has been followed, yet fugitive dust emissions still exceed the standards of Maricopa County Rule 316 and, therefore, a revised Dust Control Plan is required.

e. The Permittee who receives a notice as described in Condition VI.D.4.b of this Attachment, 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 written request, for good cause. During the time that the Permittee is preparing revisions to the Dust Control Plan, the Permittee shall still comply with all requirements of Maricopa County Rule 316.

[Maricopa County Rule 316 §311.5]

f. The Permittee shall keep a complete copy of the approved Dust Control Plan on-site at all times.

[Maricopa County Rule 316 §311.6]

g. The Permittee shall make available the approved Dust Control Plan to all contractors and subcontractors at a facility who are engaged in nonmetallic mineral processing or related operations that are subject to Maricopa County Rule 316.

[Maricopa County Rule 316 §311.7]

5. 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 any activity capable of generating fugitive dust is conducted at the facility. Self-inspection records shall include daily inspections for crusted or damp soil, trackout conditions and clean-up measures, daily water usage for dust control measures, and dust suppressant application. Such written records shall also include the following information.

[Maricopa County Rule 316 §501.4]

a. Method, frequency, and intensity of application or implementation of the control measures;

b. Method, frequency, and amount of water application to the site;

c. Street sweeping frequency;

d. Types of surface treatments applied to and maintenance of trackout control devices, gravel pads, fences, wind barriers, and tarps;

e. Types and results of test methods conducted;

f. If contingency control measures are implemented, actual application or implementation of contingency control measures and why contingency control measures were implemented;

g. List of subcontractors’ names and registration numbers, if applicable, updated when changes are made; and

h. Names of employee(s) who successfully completed dust control training class(es) required by Conditions VI.D.1 and VI.D.2 of this Attachment, and the date of the class(es) that such employee(s) successfully completed.

6. Basic Dust Control Training Class Records

The Permittee shall compile, maintain, and retain written records for each employee subject to Condition VI.D.2 of this Attachment. 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 such class.

[Maricopa County Rule 316 §501.5]

E. Testing Requirements

1. The Permittee shall conduct performance tests for soil stabilization and moisture content as required by the Director.

[Arizona Administrative Code R18-2-312]

2. Compliance Determination For Emissions And Controls That Are Regulated By Maricopa County Rule 316 §306

To determine compliance with the fugitive dust emission limitations described in the stabilization standards described in Section VI.B of this Attachment, opacity observations shall be conducted in accordance with the techniques specified in
Appendix C-Fugitive Dust Test Methods of the Maricopa County Adopted Rules.

[Maricopa County Rule 316 §503]

a. Soil Moisture Content and Soil Compaction Characteristic Test Methods

[Maricopa County Rule 316 §504]


(2) ASTM Method D1557-02e1 ("Test Method For Laboratory Compaction Characteristics Of Soil Using Modified Effort (56,000 ft-lbf/ft$^3$ (2,700 kN-m/m$^3$))"), 2002 edition.


b. Stabilization Standards Test Methods

The stabilization standards described in Section VI.B of this Attachment shall be determined by using the following test methods in accordance with Appendix C-Fugitive Dust Test Methods of these rules:

[Maricopa County Rule 316 §505]

(1) Appendix C, Section 2.1.2 (Silt Content Test Method) of the Maricopa County 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 the Maricopa County Rules for soil crust.

(3) Appendix C, Section 2.4 (Test Methods for Stabilization-Determination of Threshold Friction Velocity (TFV) Sieving Field Procedure) of the Maricopa County Rules for 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 the 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 the 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 the 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 the 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 of the EPA.

F. Permit Shield


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

VII. OTHER PERIODIC ACTIVITY REQUIREMENTS

A. Abrasive Blasting

1. Applicability

These conditions shall apply to all abrasive blasting operations unless they meet the following criteria:

[Maricopa County Rule 312 §103]

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

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 Condition VII.A.3 of this Attachment may be performed:

[Maricopa County Rule 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:

[Maricopa County Rule 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:

[Maricopa County Rule 312 §303]

a. Using a certified abrasive, or
b. Venting to an ECS.

5. Requirements for ECS and Monitoring Devices

The following requirements apply to blasting equipment that vents through a required ECS and requires a permit under Rule 200 of the Maricopa County Adopted Rules. Buildings and/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:

[Maricopa County Rule 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)

[Maricopa County Rule 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 VII.A.5.b of this Attachment 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 VII.A.5 of this Attachment. If the O&M plan has not been filed, any owner or operator employing an approved existing ECS on the effective date of Maricopa County Rule 312 shall by December 18, 2003 have an O&M plan filed with the Director.

(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 of this Attachment 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.

[Maricopa County Rule 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.

[Maricopa County Rule 312 §305]

7. Wind Event

No dry unconfined abrasive blasting operation shall be conducted during a wind event.

[Maricopa County Rule 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:

[Maricopa County Rule 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
a. Unconfined Blasting

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 of this Attachment regarding work practices.

[Maricopa County Rule 312 §308.1]

b. Confined Blasting

At the end of the work shift the Permittee shall clean up spillage, carry-out and/or trackout of any spent abrasive material with a potential to be transported during a wind event.

[Maricopa County Rule 312 §308.2]

10. Recordkeeping and Reporting

At a minimum, the Permittee subject to this Condition shall keep the following records on-site, that are applicable to all abrasive blasting operations.

[Maricopa County Rule 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:

[Maricopa County Rule 312 §501.1]

(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:

[Maricopa County Rule 312 §501.2]

(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.

[Maricopa County Rule 312 §501.3]

11. Records Retention

Copies of reports, logs, and supporting documentation required by this Condition shall be retained for at least 5 years at permitted Title V sources and for at least 2 years at Non-Title V sources.

[Maricopa County Rule 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.

[Maricopa County Rule 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.

[Maricopa County Rule 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:

[Maricopa County Rule 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.

[Maricopa County Rule 312 §505.1]

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 Condition VII.A of this Attachment.

[Maricopa County Rule 312 §505.2]

c. Emissions from confined blasting shall be observed at the densest point after the air contaminant leaves the enclosure or associated ECS.

[Maricopa County Rule 312 §505.3]
B. Spray Coating Operations

To limit the emission of particulate matter to the atmosphere from spray coating operations.

[Maricopa County Rule 315 §101]

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

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.

[Maricopa County Rule 315 §301.1]

(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.

[Maricopa County Rule 315 §301.1.a]

(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 and/or within two feet of any open top of the enclosure.

[Maricopa County Rule 315 §301.1.b]

b. Equipment Operated With Forced Air Exhaust Vented Directly Outside

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.

[Maricopa County Rule 315 §301.2]

2. Exemptions

The controls required in Section VII.B.1 of this Attachment shall not apply:

[Maricopa County Rule 315 §302]

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.

C. Permit Shield

Compliance with the conditions this Section shall be deemed compliance with Maricopa County Rule 312 §103, §301, §302, §303, §304, §305, §306, §307, §308, §501, §502, §503, §505, 315 §101, §301.1, and §302.

[A.A.C. R18-2-325]
ATTACHMENT "F": ADDITIONAL REQUIREMENTS FOR SOURCES OPERATING IN PIMA COUNTY

I. GENERAL CONDITIONS

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

A. Applicability of more than one standard

While operating in Pima County the Permittee shall comply with the Conditions set forth in Attachments “B”, “C”, “D” and this Attachment. Whenever more than one Condition in this Attachment regulating the same emissions applies to any emissions unit, or whenever a Condition in this Attachment and a Condition in Attachments "B", “C”, and “D” regulating the same emissions applies to any emissions unit, the Condition or combination of Conditions resulting in the lowest emissions rate or lowest concentration of regulated air pollutants released to the atmosphere shall apply, unless otherwise specifically exempted or designated in the applicable permit Conditions.

[CPC 17.16.010.A-B]

C. Pollution Controls

[PCC 17.13.020.A.3.c & PCC 17.16.010]

1. The Permittee shall install and operate baghouses and/or dust collectors on all pneumatically-loaded silos and load-out operations according to manufacturer’s recommendations and specifications. If there are no manufacturer’s recommendations and specifications available for the controls, the Permittee shall prepare an Operations and Maintenance Plan that includes all equipment maintenance and operation specifications for the baghouses and dust collectors.

2. The Permittee shall demonstrate compliance by examining the condition of the baghouses, spray bars, and nozzles each time that maintenance is performed. Baghouse filters, spray bars, and nozzles shall be checked to ensure they are maintained according to the manufacturer’s recommendations and specifications or the Permittee’s in-house Operations and Maintenance Plan. Observational results of these checks shall be recorded by the Permittee in a log.

3. At least once each day, the Permittee shall observe and record all visible emission check results including EPA reference Method 9 observations (if applicable), excess emissions, and permit deviations for sources listed in the ATO. If no visible emissions are observed, the record shall reflect this. Records of such checks shall include the information required in Section XI of Attachment A of this permit.

C. Process Weight Determination Requirement

[PCC 17.13.020.A.3.c]

The Permittee shall install, calibrate, maintain, and operate monitoring devices which can be used to determine daily the process weight of materials produced in plants covered by this permit. The weighing devices shall have an accuracy of ± 5 percent over their operating range.

1. A specific procedure to determine the daily process weight rate of the material being processed shall not be required unless the Control Officer has reason to believe a violation of the standard has been committed.
2. The Permittee shall maintain a record of daily production rates of materials produced and all calibration and maintenance records of the monitoring devices used to determine compliance.

D. Fuel Requirements

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. [P.C.C. §17.16.010.C]

II. CRUSHING AND SCREENING REQUIREMENTS

A. Applicability

The provisions of this Section 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. [PCC §17.16.370.A]

B. Particulate Matter and Opacity

1. The opacity of any plume or effluent shall not be greater than the opacity limit in Table 1 of this Attachment. [PCC §17.16.710]

2. Fugitive emissions from gravel or crushed stone processing plants shall be controlled in accordance with Attachment B, Section VII of this permit and Section IV of this Attachment. [PCC §17.16.370.E]

C. Permit Shield

Compliance with the conditions of this Section shall be deemed compliance with P.C.C. §17.16.370 and §17.16.710 [A.A.C. R18-2-325]

III. CONCRETE BATCH PLANT REQUIREMENTS

A. Emission Limitations

Fugitive Emissions from gravel or crushed stone processing plants shall be controlled in accordance with Attachment B, Section VII of this permit and Section IV of this Attachment.

B. Permit Shield

Compliance with the Conditions of this Section shall be deemed compliance with PCC §17.16.380. [A.A.C. R18-2-325]

IV. FUGITIVE DUST & VISIBILITY REQUIREMENTS

A. Visibility Emission Standards (Opacity)

[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 8 of this Attachment, or as otherwise specified in this permit, subject to the following provisions:

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 1 of this Attachment. 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.

Table 11: Opacity Limits

<table>
<thead>
<tr>
<th>Type of Source</th>
<th>Instantaneous Opacity Measurements</th>
<th>Maximum Allowable Average Opacity, percent</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Required No. (For a Set)</td>
<td>Excluded (Highest Values)</td>
</tr>
<tr>
<td>Cold Diesel Engines ¹</td>
<td>25</td>
<td>0</td>
</tr>
<tr>
<td>Loaded Diesel Engines ²</td>
<td>26</td>
<td>1</td>
</tr>
<tr>
<td>Asbestos-Containing Operation ³</td>
<td>25</td>
<td>0</td>
</tr>
<tr>
<td>Other Sources ⁴</td>
<td>25</td>
<td>0</td>
</tr>
</tbody>
</table>

¹ Applicable to the first 10 consecutive minutes after starting up a diesel engine.
² Applicable to a diesel engine being accelerated under load.
³ Applicable to an asbestos mill, manufacturing or fabrication operation which uses asbestos as a raw material, or spraying operation which sprays materials containing more than one percent asbestos by weight.
⁴ Any source not otherwise specifically covered within this table.

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. Visibility Limiting Standard

[P.C.C. 17.16.050.A]

a. The Permittee shall not cause, allow or permit operations or activities likely to result in excessive amounts of airborne dust without taking reasonable precautions to prevent excessive amounts of particulate matter from becoming airborne.

b. 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:
(1) 20 percent for such non-point sources in Eastern Pima County, east of the eastern boundary of the Tohono O'Odham Reservations.

(2) 40 percent for such non-point sources in all other areas of Pima County.

c. 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.

[Pima County SIP Rule 343]

(1) 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.

(2) Condition V.A.2.c 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.

(3) The exception in Condition V.A.2.c.(2) 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.

(4) Any disregard of, neglect of, or inattention to other controls required herein, during any time when Condition V.A.2.c is in effect, shall automatically waive the exception in V.A.2.c.(2) and such relaxation of controls shall be a violation.

B. Authorization for Fugitive Dust Activities

[PCC §17.14.040F & 17.16.060]

The Permittee is authorized to conduct fugitive dust producing activities and is responsible for controlling 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.

1. 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.

2. 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.

C. Vacant Lots and Open Spaces

[P.C.C. §17.16.080]

1. The Permittee shall not cause, suffer, allow, or permit a building or its appurtenances, or a building or subdivision site, or a driveway, or a parking area, or a 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, without taking reasonable precautions to limit excessive amounts of particulate matter from becoming airborne. Dust
and other types of air contaminants shall be kept to a minimum 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.

2. 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 used or 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.

3. No vacant lot, parking area, sales lot, or other open urban area shall be used by motor vehicles in such a manner that visible dust emissions induced by vehicular traffic on the area cause a violation of visible emission standards under Condition V.A.

D. Roads and Streets

1. The Permittee shall not cause, suffer, allow or permit the use, repair, construction or reconstruction of a roadway or alley without taking reasonable precautions to prevent excessive amounts of particulate matter from becoming airborne. Dust and other particulates shall be kept to a minimum by employing temporary paving, dust suppressants, wetting down, detouring or by other reasonable means.

2. Dust emissions from the construction phase of a new road must be minimized by applying the same measures specified in Condition V.D.1.

3. 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.

4. 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 Condition V.A.

5. 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.

6. The surfacing of roadways with asbestos tailings is prohibited.

7. The Permittee shall not cause, suffer, allow or permit transportation of materials likely to give rise to airborne dust without taking reasonable precautions such as wetting, applying dust suppressants, or covering the load, to prevent particulate matter from becoming airborne. Earth or other material that is deposited by trucking or earth moving equipment shall be removed from paved streets by the person responsible for such deposits.

E. Particulate Materials

[P.C.C. §17.16.100]
1. The Permittee shall not 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.

F. Fugitive dust emissions standards for motor vehicle operation

[P.C.C. §17.16.070]

1. The Permittee shall not 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. The Permittee shall not 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 Condition V.F. In lieu of issuing a notice to appear, peace officers may file a violation report with the Director, requesting him to file a complaint alleging a violation of this Condition V.F pursuant to A.R.S. 49-502.

G. Storage Piles

[P.C.C. §17.16.110]

1. The Permittee shall not cause, suffer, allow or permit organic or inorganic dust producing material to be stacked, piled or otherwise stored without taking reasonable precautions to prevent excessive amounts of particulate matter from becoming airborne.

2. Stacking and reclaiming machinery utilized at the storage piles shall be operated at all times with a minimum fall of material and in such a manner, or with use of spray bars and wetting agents, as to minimize and ensure compliance with Condition V.A of this Attachment.

H. Permit Shield
Compliance with the conditions of this Section shall be deemed compliance with P.C.C. § 17.16.010, 040, 050, 060, 070, 080, 090, 100, and 110 and SIP Rule 343.

[A.A.C. R18-2-325]
ATTACHMENT "G": ADDITIONAL REQUIREMENTS FOR SOURCES OPERATING IN PINAL COUNTY

I. APPLICABILITY

A. While operating in Pinal County the Permittee shall comply with the Conditions set forth in Attachment “B” and Attachment “E”. Whenever more than one Condition in this Attachment regulating the same emissions applies to any emissions unit, or whenever a Condition in this Attachment and a Condition in Attachment "B" regulating the same emissions applies to any emissions unit, the Condition or combination of Conditions resulting in the lowest emissions rate or lowest concentration of regulated air pollutants released to the atmosphere shall apply, unless otherwise specifically exempted or designated in the applicable permit Conditions.

[A.R.S. § 49-402(D)]

B. 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 County Code §5-5-180]

II. FACILITY WIDE REQUIREMENTS

Air Pollution Control Requirements

A. Material Containment Requirement

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.

[Pinal Code § 5-24-1030.F]

B. Stack Requirements

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.

[Pinal Code § 5-24-1030.G]

C. Permit Shield

Compliance with the conditions of this Section shall be deemed compliance with Pinal Code § 5-24-1030.F and G.

III. FUGITIVE EMISSIONS REQUIREMENTS

A. Particulate Matter Emissions
Fugitive emissions from gravel or crushed stone processing plants shall be controlled in accordance with Chapter 4 of this Code. [Pinal County Code §5-5-190.D]

1. Emission Limitations/Standards

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. [Pinal County Code §4-2-040.A]

b. The Permittee shall not cause, suffer, allow, or permit a vacant lot, or an urban or suburban open area, to be driven over or used by motor vehicles, such as but not limited to all-terrain vehicles, trucks, cars, cycles, bikes, or buggies, without taking reasonable precautions to effectively prevent fugitive dust from becoming airborne. [Pinal County Code §4-2-040.B]

c. 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. [Pinal County Code §4-2-040.D]

d. The Permittee shall not crush, screen, handle or convey materials or cause, suffer, allow or permit material to be stacked, piled or otherwise stored without taking reasonable precautions to effectively prevent fugitive dust from becoming airborne. [Pinal County Code §4-2-040.E]

e. Stacking and reclaiming machinery utilized at storage piles shall be operated at all times with a minimum fall of material and in such manner, or with the use of spray bars and wetting agents, as to prevent excessive amounts of particulate matter from becoming airborne. Other reasonable precautions shall be taken, as necessary, to effectively prevent fugitive dust from becoming airborne. [Pinal County Code §4-2-040.F]

f. The Permittee shall not cause, suffer, allow or permit transportation of materials likely to give rise to fugitive dust without taking reasonable precautions to prevent fugitive dust from becoming airborne. Earth and other material that is tracked out or transported by trucking and earth moving equipment on paved streets shall be removed by the party or person responsible for such deposits. Removal of earth from paved streets shall not violate the visibility standard in Pinal County Code Chapter 2. [Pinal County Code §4-2-040.G]

g. The Permittee shall not cause, suffer, allow, or permit the use, repair, construction or reconstruction of any road or alley without taking every reasonable precaution to effectively prevent fugitive dust from becoming airborne. [Pinal County Code §4-2-040.I]
h. The Permittee shall implement the following control measures for blasting operations at a facility:

1. If wind gusts are above 25 miles per hour, discontinue/cease blasting;

2. Pre-water and maintain surface soils in a stabilized condition where support equipment and vehicles will operate.

[Pinal Code § 4-7-230.N]

2. Visibility Limiting Standard

a. Sources subject to §4-2-040. shall also be subject to the visible opacity limitations in Chapter 2, Article 8.

[Pinal County Code §4-2-050]

b. The opacity of any plume or effluent, from a source described in Pinal County Code 2-8-300.A, as determined by Reference Method 9 in 40 CFR 60, Appendix A, shall not be:

1. Greater than 20% in an area that is nonattainment or maintenance for any particulate matter standard, unless an alternative opacity limit is approved by the Director and Administrator as provided in Pinal County Code 2-8-300.C and 2-8-300.D after June 2, 2005;

[Pinal County Code §2-8-300.B.1]

2. Greater than 20% in any area that is attainment or unclassifiable for each particulate matter standard except as provided in Pinal County Code 2-8-300.C and 2-8-300.D.

[Pinal County Code §2-8-300.B.3]

B. Additional Requirements for West Pinal County PM$_{10}$ Nonattainment area

1. The Permittee shall not cause or allow visible fugitive dust emissions from open areas/vacant lots (areas not currently utilized for an activity) to exceed 20% opacity based on EPA Method 9 or the continuous plume or intermittent plume methods listed in PCAQCD Code §4-9-340.

2. The Permittee shall erect barriers or no trespassing signs upon evidence of trespass on open areas/vacant lots.

3. The Permittee shall stabilize any open area/vacant lot greater than 1.0 acre that has 0.5 acre or more of disturbed surface and sign up for the Pinal County Dust Control forecast within 30 days of discovery. The open area/vacant lot shall be stabilized the day leading up to and the day that is forecast to be high risk for dust emissions.

4. The Permittee shall not remove vegetation from open areas/vacant lots without applying dust suppressants before and during the weed abatement. Trackout onto paved surfaces must be prevented or eliminated and dust suppressants must be applied following weed abatement to stabilize the entire surface.

5. Stabilization of open areas/vacant lots is determined by the drop ball, threshold friction velocity, flat vegetation or standing vegetation methods listed in PCAQCD
6. The Permittee shall not cause or allow visible fugitive dust emissions from unpaved lots (areas being utilized for an activity) greater than 5000 square feet to exceed 20% opacity based on EPA Method 9 or the continuous plume or intermittent plume methods listed in PCAQCD Code §4-9-340.

7. The Permittee shall not allow silt loading equal to or greater than 0.33 oz/ft2 or allow the silt content to exceed 8% on unpaved lots greater than 5000 square feet.

8. The Permittee shall stabilize unpaved lots greater than 5000 square feet by paving, applying a dust suppressant or graveling.

9. The Permittee shall clean up trackout on a paved public roadway that exceeds 50 feet within 24 hours of discovery and limit opacity to 20% or less while using a rotary brush or broom.

C. Monitoring and Records

1. 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.

2. 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 checked.

3. Opacity observations for visible emissions of fugitive dust shall be conducted in accordance with techniques specified in Reference Method 9 in the Arizona Testing Manual for Air Pollutant Emissions.

D. Permit Shield


[A.A.C. R18-2-325]
APPENDIX A: OPACITY SURVEY RECORDKEEPING FORM

Facility/Plant Name:            ADEQ Air Permit No.:

<table>
<thead>
<tr>
<th>Date</th>
<th>Emissions Source or Stack</th>
<th>Opacity Standard</th>
<th>Required Frequency of Instantaneous Survey</th>
<th>Opacity of Instantaneous Survey</th>
<th>If Instantaneous Survey Exceeds Opacity Standard, Result of 6-Minute Observation **</th>
<th>Corrective Actions</th>
<th>Signature or Initials of Certified Personnel</th>
<th>Remarks*</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Please indicate in remarks when the emission source is not in use.

** Please submit excess emission report to ADEQ for any 6-minute Observation that exceeds the applicable opacity standard.
APPENDIX B: MAP OF THE PINAL COUNTY PROHIBITED AREA