

GENERAL AIR QUALITY CONTROL PERMIT

for

Concrete Batch Plants

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

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



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

ADEQ GENERAL PERMIT NUMBER __ PERMIT CLASS II EXPIRATION DATE _____

PERMIT ISSUED THIS _____ DAY OF _____, 2009

SIGNATURE

Nancy C. Wrona, Director, Air Quality Division
TITLE

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

TABLE OF CONTENTS

ATTACHMENT "A": GENERAL PROVISIONS.....	4
I. GENERAL PERMIT EXPIRATION AND RENEWAL	4
II. COMPLIANCE WITH PERMIT CONDITIONS	4
III. GENERAL PERMIT REOPENINGS, REVOCATION AND REISSUANCE, OR TERMINATION FOR CAUSE.....	4
IV. POSTING OF GENERAL PERMIT	5
V. FEE PAYMENT	6
VI. ANNUAL EMISSION INVENTORY QUESTIONNAIRE	6
VII. COMPLIANCE CERTIFICATION	6
VIII. CERTIFICATION OF TRUTH, ACCURACY AND COMPLETENESS	7
IX. INSPECTION AND ENTRY	7
X. PERMIT REVISION PURSUANT TO FEDERAL HAZARDOUS AIR POLLUTANT STANDARD.....	7
XI. EXCESS EMISSIONS, PERMIT DEVIATIONS, AND EMERGENCY REPORTING	8
XII. RECORD KEEPING REQUIREMENTS	12
XIII. REPORTING REQUIREMENTS	13
XIV. DUTY TO PROVIDE INFORMATION.....	13
XV. FACILITY CHANGE ALLOWED WITHOUT OBTAINING AN A.T.O. OR INDIVIDUAL PERMIT	13
XVI. TESTING REQUIREMENTS	15
XVII. PROPERTY RIGHTS.....	17
XVIII. SEVERABILITY CLAUSE	17
XIX. PERMIT SHIELD.....	17
XX. ACCIDENTAL RELEASE PROGRAM.....	17
XXI. APPLICABILITY OF NSPS GENERAL PROVISIONS	17
ATTACHMENT "B": CONCRETE BATCH PLANT REQUIREMENTS.....	18
I. RELATIONSHIP OF PERMIT TO APPLICABLE STATE IMPLEMENTATION PLAN	18
II. CONDITIONS FOR COVERAGE.....	18
III. FACILITY WIDE LIMITATIONS	18
IV. CONCRETE BATCH FACILITY REQUIREMENTS	20
V. WASH PLANT REQUIREMENTS	23
VI. BOILERS.....	24
VII. DIRECT-FIRED FUEL BURNING EQUIPMENT REQUIREMENTS	26
VIII. GENERATOR REQUIREMENTS	27
IX. FUGITIVE DUST REQUIREMENTS.....	47
X. MOBILE SOURCE REQUIREMENTS.....	49
XI. CONDITIONS SPECIFIC TO PORTABLE SOURCES	50
XII. OTHER PERIODIC ACTIVITY REQUIREMENTS	51
ATTACHMENT "C": ADDITIONAL REQUIREMENTS FOR SOURCES OPERATING IN PIMA COUNTY	55

I.	APPLICABILITY OF MULTIPLE PERMIT CONDITIONS	55
II.	CONCRETE BATCH PLANT REQUIREMENTS	55
III.	DIRECT-FIRED FUEL BURNING EQUIPMENT REQUIREMENTS	55
IV.	FUGITIVE EMISSIONS REQUIREMENTS	56
V.	OTHER SPECIFIC REQUIREMENTS	58
	ATTACHMENT "D": ADDITIONAL REQUIREMENTS FOR SOURCES OPERATING IN PINAL COUNTY	61
I.	APPLICABILITY OF MULTIPLE PERMIT CONDITIONS	61
II.	FUGITIVE EMISSIONS REQUIREMENTS	61
	ATTACHMENT "E": MAP OF THE PROHIBITED PORTIONS OF PIMA COUNTY	62
	ATTACHMENT "F": MAP OF THE PROHIBITED PORTIONS OF SANTA CRUZ COUNTY	63
	ATTACHMENT "G": MAP OF THE PROHIBITED PORTIONS OF YUMA COUNTY	64
	ATTACHMENT "H": MAP OF THE PROHIBITED PORTIONS OF GILA COUNTY AND PINAL COUNTY	65
	ATTACHMENT "I": MAP OF THE PROHIBITED PORTIONS OF COCHISE COUNTY	66

DRAFT

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

ATTACHMENT "A": GENERAL PROVISIONS

I. GENERAL PERMIT EXPIRATION AND RENEWAL

[A.R.S. § 49-426.F, A.A.C. R18-2-306.A.1, -505, and -510]

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

II. COMPLIANCE WITH PERMIT CONDITIONS

[A.A.C. R18-2-306.A.8.a and b]

- A.** The Permittee shall comply with all conditions of this General Permit including all applicable requirements of Arizona air quality statutes and the air quality rules. Any permit noncompliance constitutes a violation of the Arizona Revised Statutes and is grounds for enforcement action, for ATO termination or revocation, or for denial of a renewal application. In addition, non-compliance with any federally enforceable requirement constitutes a violation of the Clean Air Act.
- B.** It shall not be a defense for a Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this General Permit.

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

[A.A.C. R18-2-321.c & d and -510]

- A.** The Director may reopen and reissue, or terminate this General Permit at any time if:

 - 1. The Director has determined that the emissions from the sources in the facility class cause or contribute to ambient air quality standards violations which are not adequately addressed by the requirements in this General Permit, or
 - 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.
 - 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.

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

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
1. All emission related equipment covered by this General Permit that has been

issued an ATO shall have either an ADEQ certified label which will include the current permit number and ATO number, and the serial or other equipment number, or be clearly marked with one of the following:

- a. The current permit number and ATO number,
- b. A serial number or other equipment number that is also listed in the ATO.

2. All emission related equipment covered by this General Permit but not issued an ATO shall be clearly marked with one of the following:

- a. The current permit number,
- b. A serial number or other equipment number that is also listed in the permit application.

C. A copy of the complete General Permit and associated ATO's shall be kept on the site.

V. FEE PAYMENT

[A.A.C. R18-2-326, -306.A.9, and -511]

The Permittee shall pay fees to the Director pursuant to A.R.S. §49-426(E) and A.A.C. R18-2-326.

VI. ANNUAL EMISSION INVENTORY QUESTIONNAIRE

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

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

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

VII. COMPLIANCE CERTIFICATION

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

A. The Permittee shall submit a compliance certification once each year, which describes the compliance status of the source with respect to each General Permit condition and the methods used for determining the compliance status. The Permittee shall list on the compliance certification all pieces of equipment issued ATOs on site at the time of the annual certification. This certification shall be submitted on September 30th and shall cover the period from September 1 of the previous year to August 31 of the current year. In addition, this certification shall include a description of any permit deviations.

The compliance certifications shall include the following:

1. Identification of each term or condition of the permit that is the basis of the certification;
2. Identification of the methods or other means used by the Permittee for determining the compliance status with each term and condition during the

certification period, and whether the methods or other means provide continuous or intermittent data;

3. The status of compliance with the terms and conditions of this permit for the period covered by the certification, based on the methods or means designated in Condition VII.A.2 above. The certifications shall identify each deviation and take it into account for consideration in the compliance certification;
4. All instances of deviations from permit requirements reported pursuant to Condition XI.B of this Attachment; and
5. Other facts the Director may require to determine the compliance status of the source.

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

VIII. CERTIFICATION OF TRUTH, ACCURACY AND COMPLETENESS [A.A.C. R18-2-304.H]

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

IX. INSPECTION AND ENTRY [A.A.C. R18-2-309.4]

Upon presentation of credentials and other documents as may be required by law, the Permittee shall allow the Director, or an authorized representative (including an authorized contractor acting as a representative of the Director), to perform the following:

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

X. PERMIT REVISION PURSUANT TO FEDERAL HAZARDOUS AIR POLLUTANT STANDARD [A.A.C. R18-2-304.C]

If a source which has been issued ATOs 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 and demonstrate how the source will comply with the standard.

XI. EXCESS EMISSIONS, PERMIT DEVIATIONS, AND EMERGENCY REPORTING

A. Excess Emissions Reporting

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

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:
 - i. 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 XI.A.1.b below.
 - ii. Detailed written notification by submission of an excess emissions report within 72 hours of the notification pursuant to Condition XI.A.1.a.i above.
- b. The report shall contain the following information:
 - i. Identity of each stack or other emission point where the excess emissions occurred;
 - ii. 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;
 - iii. Date, time and duration, or expected duration, of the excess emissions;
 - iv. Identity of the equipment from which the excess emissions emanated;
 - v. Nature and cause of such emissions;
 - vi. 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
 - vii. Steps taken to limit the excess emissions. If the excess emissions resulted from start-up or malfunction, the report shall contain a list of the steps taken to comply with the permit procedures.

2. In the case of continuous or recurring excess emissions, the notification

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

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

B. Permit Deviations Reporting

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

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

C. Emergency Provision

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

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

4. In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
5. This provision is in addition to any emergency or upset provision contained in any applicable requirement.

D. Compliance Schedule [ARS § 49-426.1.5]

For any excess emission or permit deviation that cannot be corrected within 72 hours, the Permittee is required to submit a compliance schedule to the Director within 21 days of such occurrence. The compliance schedule shall include a schedule of remedial measures, including an enforceable sequence of actions with milestones, leading to compliance with the permit terms or conditions that have been violated.

E. Affirmative Defenses for Excess Emissions Due to Malfunctions, Startup, and Shutdown [A.A.C. R18-2-310]

1. Applicability

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

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

2. Affirmative Defense for Malfunctions

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

- a. The excess emissions resulted from a sudden and unavoidable breakdown of process equipment or air pollution control equipment beyond the reasonable control of the Permittee;
- b. The air pollution control equipment, process equipment, or processes were at all times maintained and operated in a manner consistent with good practice for minimizing emissions;
- c. If repairs were required, the repairs were made in an expeditious fashion

when the applicable emission limitations were being exceeded. Off-shift labor and overtime were utilized where practicable to ensure that the repairs were made as expeditiously as possible. If off-shift labor and overtime were not utilized, the Permittee satisfactorily demonstrated that the measures were impracticable;

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

3. Affirmative Defense for Startup and Shutdown

- a. Except as provided in Condition XI.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:
 - i. The excess emissions could not have been prevented through careful and prudent planning and design;
 - ii. 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;

- iii. 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;
 - iv. The amount and duration of the excess emissions (including any bypass operation) were minimized to the maximum extent practicable during periods of such emissions;
 - v. All reasonable steps were taken to minimize the impact of the excess emissions on ambient air quality;
 - vi. 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;
 - vii. All emissions monitoring systems were kept in operation if at all practicable; and
 - viii. Contemporaneous records documented the Permittee's actions in response to the excess emissions.
- b. If excess emissions occur due to a malfunction during routine startup and shutdown, then those instances shall be treated as other malfunctions subject to Condition XI.E.2 above.
4. Affirmative Defense for Malfunctions During Scheduled Maintenance
- If excess emissions occur due to a malfunction during scheduled maintenance, then those instances will be treated as other malfunctions subject to Condition XI.E.2 above.
5. Demonstration of Reasonable and Practicable Measures
- For an affirmative defense under Condition XI.E.2 or XI.E.3 above, the Permittee shall demonstrate, through submission of the data and information required by Condition XI.E and A.A.C. R18-2-310.01, that all reasonable and practicable measures within the Permittee's control were implemented to prevent the occurrence of the excess emissions.

XII. RECORD KEEPING REQUIREMENTS

A. Monitoring Records

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

The Permittee shall keep records of all required monitoring information including, but not limited to, the following;

- 1. The date, place as defined in the permit, and time of sampling or measurements;
- 2. The date(s) analyses were performed;

3. The name of the company or entity that performed the analyses;
 4. A description of the analytical techniques or methods used;
 5. The results of such analyses; and
 6. The operating conditions 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 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 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.

XIII. REPORTING REQUIREMENTS

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

The Permittee shall submit the following reports:

- A.** Compliance certifications in accordance with Section VII of Attachment “A”.
- B.** Excess emissions, permit deviations, and emergency reports in accordance with Section XI of Attachment “A”.
- C.** Other reports required by any condition in Attachment “B”.
- D.** Performance test results in accordance with Condition XVI.G of Attachment “A”.
- E.** Any records required by Attachment “B” when requested by the Director.

XIV. DUTY TO PROVIDE INFORMATION

[A.A.C. R18-2-304.G and -306.A.8.e]

- 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 revoking the General Permit coverage, or to determine compliance with this General Permit. Upon request, the Permittee shall also furnish to the Director copies of records that the Permittee is required to keep under the General Permit. For information claimed confidential, the Permittee shall furnish an additional copy of such records directly to the Director along with a claim of confidentiality.
- B.** If the Permittee has failed to submit any relevant facts or if the Permittee has submitted incorrect information in a General Permit coverage application shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary facts or corrected information.

XV. FACILITY CHANGE ALLOWED WITHOUT OBTAINING AN ATO OR INDIVIDUAL PERMIT

[A.A.C. R18-2-306.A.4 and -317.02]

- A.** Except for a physical change or change in the method of operation at a Class II source subject to logging or notice requirements in Conditions XV.B and XV.C below, a change at a Class II source shall not be subject to revision, notice, or logging requirements under this Section.
- B.** The following changes may be made if the source keeps on site records of the changes according to Appendix 3 of the Arizona Administrative Code:
1. Implementing an alternative operating scenario, including raw material changes;
 2. Changing process equipment (as long as change does not require a new ATO), operating procedures, or making any other physical change if the permit requires the change to be logged;
 3. Engaging in any new insignificant activity listed in A.A.C. R18-2-101.57.a through A.A.C. R18-2-101.57.i but not listed in the permit;
 4. Replacing an item of air pollution control equipment listed in the permit with an identical (same model, different serial number) item. The Director may require verification of efficiency of the new equipment by performance tests; and
 5. A change that results in a decrease in actual emissions if the source wants to claim credit for the decrease in determining whether the source has a net emissions increase for any purpose. The logged information shall include a description of the change that will produce the decrease in actual emissions. A decrease that has not been logged is creditable only if the decrease is quantifiable, enforceable, and otherwise qualifies as a creditable decrease.
- C.** The following changes may be made if the source provides written notice to the Department in advance of the change as provided below:
1. If allowed under the General Permit, replacing an item of air pollution control equipment listed in the permit with one that is not identical but that is substantially similar and has the same or better pollutant removal efficiency: 7 days. The Director may require verification of efficiency of the new equipment by performance tests;
 2. If allowed under the General Permit, replacing an item of air pollution control equipment listed in the permit with one that is not substantially similar but that has the same or better efficiency: 30 days. The Director may require verification of efficiency of the new equipment by performance tests; and
 3. A change that would trigger an applicable requirement that already exists in the permit: 30 days unless otherwise required by the applicable requirement.
- D.** For each change under Condition XV.C above, the written notice shall be by certified mail or hand delivery and shall be received by the Director the minimum amount of time in advance of the change. Notifications of changes associated with emergency conditions, such as malfunctions necessitating the replacement of equipment, may be provided with less than required notice, but must be provided as far in advance of the change, or if advance notification is not practicable, as soon after the change as possible. The written

notice shall include:

1. When the proposed change will occur,
 2. A description of the change,
 3. Any change in emissions of regulated air pollutants, and
 4. Any permit term or condition that is no longer applicable as a result of the change.
- E.** The permit shield described in A.A.C. R18-2-325 shall not apply to any change made under this Section, other than implementation of an alternate operating scenario under Condition XV.B.1.
- F.** If a source change is described under both Conditions XV.B and XV.C above, the source shall comply with Condition XV.C above.
- G.** A copy of all logs required under Condition XV.B shall be filed with the Director within 30 days after each anniversary of the permit issuance date. If no changes were made at the source requiring logging, a statement to that effect shall be filed instead.
- H.** Logging Requirements
1. Each log entry required by a change under Condition XV.B shall include the following information:
 - a. A description of the change, including:
 - i. A description of any process change;
 - ii. A description of any equipment change, which does not require a new or revised ATO(s), including both old and new equipment descriptions, model numbers and serial numbers, or any other unique equipment number; and
 - iii. A description of any process material change.
 - b. The date and time that the change occurred.
 - c. The date the entry was made and the first and last name of the person making the entry.
 2. Logs shall be kept for 5 years from the date created. Logging shall be performed in indelible ink in a bound log book with sequentially numbered pages, or in any other form, including electronic format, approved by the Director.

XVI. TESTING REQUIREMENTS

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

- A.** The Permittee shall conduct performance tests as specified in the permit and at such other

times as may be required by the Director.

B. Operational Conditions During Performance Testing

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

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

D. Test Plan

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

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

E. Stack Sampling Facilities

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

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

F. Interpretation of Final Results

Each performance test shall consist of three separate runs using the applicable test method. Each run shall be conducted for the time and under the conditions specified in the applicable standard. For the purpose of determining compliance with an applicable standard, the arithmetic mean of the results of the three runs shall apply. In the event that a sample is accidentally lost or conditions occur in which one of the three runs is required to be discontinued because of forced shutdown, failure of an irreplaceable portion of the

sample train, extreme meteorological conditions, or other circumstances beyond the Permittee's control, compliance may, upon the Director's approval, be determined using the arithmetic mean of the results of the other two runs. If the Director or the Director's designee is present, tests may only be stopped with the Director's or such designee's approval. If the Director or the Director's designee is not present, tests may only be stopped for good cause. Good cause includes: forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological conditions, or other circumstances beyond the Permittee's control. Termination of any test without good cause after the first run is commenced shall constitute a failure of the test. Supporting documentation, which demonstrates good cause, must be submitted.

G. Report of Final Results

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

XVII. PROPERTY RIGHTS

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

This General Permit does not convey any property rights of any sort, or any exclusive privilege.

XVIII. SEVERABILITY CLAUSE

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

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.

XIX. PERMIT SHIELD

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

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

XX. ACCIDENTAL RELEASE PROGRAM

[40 CFR 68]

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

XXI. APPLICABILITY OF NSPS GENERAL PROVISIONS

[40 CFR 60]

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

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

ATTACHMENT "B": CONCRETE BATCH PLANT REQUIREMENTS

I. RELATIONSHIP OF PERMIT TO APPLICABLE STATE IMPLEMENTATION PLAN FOR NEW OR MODIFIED SOURCES. [ARS § 49-404.c and -426]

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

II. CONDITIONS FOR COVERAGE

This General Permit covers sources that meet the requirements as laid out in the general permit application packet for Concrete Batch Plants. The Permittee shall keep a copy of the permit application for their records.

[A.A.C. R18-2-302.B, -306.01, -501 through -511]

III. FACILITY WIDE LIMITATIONS

A. Operational Limitations

1. The Permittee shall operate the concrete batch plant in one of the following two operating scenarios:
 - a. The Permittee shall not operate the concrete batch such that the throughput exceeds 900 cubic yards per day while operating under generator power.
[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 such that the throughput exceeds 930 cubic yards per day while operating under commercial electric power.
[A.A.C. R18-2-306.01 and -331.A.3.a]
[Material permit conditions are indicated by underline and italics]
2. The Permittee shall not hold an ADEQ permit and a county air quality permit concurrently for the concrete batch facility. If a county air quality permit is required to be obtained in accordance with Condition X.D of this Attachment, the Permittee shall terminate this ADEQ permit after obtaining a county air quality permit.
[A.A.C. R18-2-306.01 and -331.A.2]
[Material permit conditions are indicated by underline and italics]
3. The Permittee shall not operate the concrete batch facility in Maricopa County.
[A.A.C. R18-2-306.01 and -331.A.3.a]
[Material permit conditions are indicated by underline and italics]
4. The Permittee shall not operate the concrete batch facility in the following portions of Pima County:

The Rillito planning area which is located in the southern part of Pima County. The following townships are located in the restricted area: T11S-R9E, T11S-R10E, T11S-R11E, T11S-R12E, T12S-R8E, T12S-R9E, T12S-R10E, T12S-R11E and T12S-R12E. A visual representation of this area is shown in Attachment “E”.

[A.A.C. R18-2-306.01 and –331.A.3.a]

[Material permit conditions are indicated by underline and italics]

5. The Permittee shall not operate the concrete batch facility in the following portions of Santa Cruz County:

The Nogales area which is located in the southern part of Santa Cruz County. The following townships are located in the restricted area: T23S-R13E, T23S-R14E, T24S-R13E and T24S-R14E. A visual representation of this area is shown in Attachment “F”.

[A.A.C. R18-2-306.01 and –331.A.3.a]

[Material permit conditions are indicated by underline and italics]

6. The Permittee shall not operate the concrete batch facility in the following portions of Yuma County:

The area located in the Lower Colorado River Valley, in the southwestern part of Yuma County. The following townships are located in the restricted area: T7S-R21W, T7S-R22W, T8S-R21W, T8S-R22W, T8S-R23W, T8S-R24W, T9S-R21W, T9S-R22W, T9S-R23W, T9S-R24W, T9S-R25W, T10S-R21W, T10S-R22W, T10S-R23W, T10S-R24W, and T10S-R25W. A visual representation of this area is shown in Attachment “G”.

[A.A.C. R18-2-306.01 and –331.A.3.a]

[Material permit conditions are indicated by underline and italics]

7. The Permittee shall not operate the concrete batch facility in the following portions of Gila County and Pinal County:

The Hayden areas; the following townships are located in the restricted area: T4S-R16E, T5S-R16E, T6S-R16E, T1N-R13E, T1N-R15E, T6S-R13E, and T6S-R15E. A visual representation of this area is shown in Attachment “H”.

[A.A.C. R18-2-306.01 and –331.A.3.a]

[Material permit conditions are indicated by underline and italics]

8. The Permittee shall not operate the concrete batch facility in the following portions of Cochise County:

The Douglas and Paul Spur areas; the following townships are located in the restricted area: Township 23 South, Range 25 East (T23S, R25E): T23S-R26E, T23S-R27E, T23S-R28E, T24S-R25E, T24S-R26E, T24S-R27E, and T24S-R28E. A visual representation of this area is shown in Attachment “I”.

[A.A.C. R18-2-306.01 and –331.A.3.a]

[Material permit conditions are indicated by underline and italics]

9. The Permittee shall not operate the concrete batch facility in any other area designated as a PM₁₀ non-attainment area following the issuance of this general permit.

[A.A.C. R18-2-306.01 and –331.A.3.a]

[Material permit conditions are indicated by underline and italics]

10. The Permittee shall not collocate the concrete batch facility with a hot mix asphalt facility or a crushing and screening facility.

[A.A.C. R18-2-306.01 and –331.A.3.a]

[Material permit conditions are indicated by underline and italics]

11. *The Permittee shall not exceed the capacity listed on the ATO assigned to each piece of equipment.*

[A.A.C. R18-2-306.01 and A.A.C. R18-2-331.A.3.a]
[Material permit conditions are indicated by underline and italics]

12. The Permittee shall have on-site or on-call a person who is certified in EPA Reference Method 9.

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

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

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

B. Record Keeping Requirements

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

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

C. Reporting Requirements

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

At the time the compliance certifications required by Section VII of Attachment "A" are submitted, the Permittee shall submit summary reports of all monitoring, recordkeeping, and testing activities required by Attachment "B", "C" and "D".

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

IV. CONCRETE BATCH FACILITY REQUIREMENTS

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

Opacity

A. Emission Limitations and Standards

1. The Permittee shall not cause, allow or permit visible emissions from nonpoint sources in excess of 40 percent opacity as measured by EPA Reference Method 9.
2. The Permittee shall not cause, allow or permit visible emissions from any point source, in excess of 20 percent opacity.

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

3. Operating Requirements

Fugitive dust emitted from the concrete batch plant shall be controlled in accordance with Section VIII 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 Silos

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

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

[Material permit conditions are indicated by underline and italics]

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

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

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

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

- i. Prior to start-up, visual inspections shall be conducted on all venting ducts/lines, fittings (including dust shroud), and the blower.
- ii. Following shut-down, all pressurized systems shall be turned "off".
- iii. 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.
- iv. All ducts, hoods, framework, and housings shall be checked daily for signs of wear.
- v. The fan motor, bearings, shaking device, reverse-jet blow rings, valves, and dampers shall be lubricated regularly and checked for wear.
- vi. The Permittee shall maintain records which demonstrate compliance with the activities listed in Conditions IV.B.1.c.i through IV.B.1.c.v above.

2. Product Delivery System

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

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

[Material permit conditions are indicated by underline and italics]

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

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

3. Wet Suppression Systems

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

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

- i. Prior to start-up, the water supply shall be checked, all nozzles shall be inspected, and all associated valves shall be opened.
- ii. Following shut-down, all nozzles shall be inspected and all associated valves shall be closed.
- iii. The spray system shall be checked daily for performance.
- iv. 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:

- i. Prior to start-up, the water supply shall be checked, all nozzles shall be inspected, and all associated valves shall be opened.
- ii. Following shut-down, all nozzles shall be inspected and all associated valves shall be closed.
- iii. Safety and equipment checks shall be conducted daily.
- iv. 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 IV.B.3.a and IV.B.3.b above.

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

C. Monitoring, Maintenance and Recordkeeping

1. A certified EPA Reference Method 9 observer shall conduct a monthly survey of visible emissions emanating from all process equipment.

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

- a. If the opacity of the emissions observed appears to exceed the standard, the observer shall conduct a certified EPA Reference Method 9 observation.
 - b. The Permittee shall keep records of the initial survey and any EPA Reference Method 9 observations performed. These records shall include the emission point observed, location of the observer, name of the observer, date and time of the observation, and the results of the observation.
 - c. If the observation results in an exceedance of the opacity limit, the Permittee shall take corrective action and log all such actions. Such exceedance shall be reported as excess emissions in accordance with Condition XI.A.1 of Attachment "A".
2. The Permittee shall maintain logs of all maintenance activities performed on the baghouse. These logs shall include the type of maintenance activity being performed and the duration of each maintenance activity, including the date, starting time, and ending time of the maintenance activities. These logs shall be maintained on-site and shall be readily available to ADEQ representatives upon request.

[A.A.C. R18-2-306.A.3.c]
 3. For each baghouse equipped with a pressure drop measuring device, the Permittee shall monitor and record twice per shift the pressure drop (in inches of H₂O) across the baghouse. The records shall include the dates and time each reading was taken.

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

D. Permit Shield

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

Compliance with the terms of Section IV of this Attachment shall be deemed compliance with the following applicable requirements: A.A.C. R18-2-614, -702.B and -723.

V. WASH PLANT REQUIREMENTS

- A.** *The Permittee shall maintain and operate venturi scrubber, or spray bars, or equivalent control equipment as appropriate, including during periods of startup, shutdown, and malfunction, to control visible emissions from screening, handling, transporting or conveying of materials, or other operations likely to result in significant amounts of airborne dust, or the material shall be adequately wet to minimize visible emissions to the extent practicable.*

[A.A.C. R18-2-306.A.2, -306.A.4, and -331.A.3.e]
[Material permit conditions are indicated by underline and italics]

- B.** Spray bar pollution control shall be utilized in accordance with "EPA Control of Air Emissions From Process Operations in the Rock Crushing Industry" (EPA 340/1-79-002), and "Wet Suppression System" (pages 15-34, amended as of January, 1979 (and no future amendments or editions)), as incorporated herein by reference and on file with the Office of the Secretary of State, with placement of spray bars and nozzles as required by the Director to minimize air pollution.
- [A.A.C. R18-2-722.D]
- C.** The Permittee shall maintain a log of any maintenance activities performed on the spray bars. The log shall include the date, time, type and duration of maintenance activities performed.

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

D. Permit Shield

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

Compliance with the terms of Section V of this Attachment shall be deemed compliance with the following applicable requirements: A.A.C. R18-2-722.D.

VI. BOILERS

A. Applicability

This Section is applicable to boilers with a cumulative maximum firing capacity of 10 MMBtu per hour. [A.A.C. R18 2 306.01]

B. Fuel Limitation

1. The Permittee shall burn only natural gas, liquefied petroleum gas (butane or propane), on-specification used oil or low-sulfur diesel fuel in the boiler(s), as identified on the ATO(s). [A.A.C. R18-2-306.A.2]
2. If the Permittee is authorized to burn "on specification" used oil fuel in the ATO, it shall be used **only** under the following conditions: [A.A.C. R18-2-306.A.2]
 - a. The used oil fuel must be analyzed and certified by the marketer (oil supplier) to be "on specification" according to the definition in A.R.S. §49-801;
 - b. The flash point shall be at least 100°F; and
 - c. The contaminants must not exceed the following levels (in parts per million by weight):

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

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

C. Particulate Matter

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

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.

2. Monitoring, Reporting, and Recordkeeping [A.A.C. R18-2-306.A.3.c]

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.

4. Permit Shield

Compliance with this Condition VI.C shall be deemed compliance with A.A.C. R18-2-724.C.1. [A.A.C. R18-2-325]

D. Opacity

1. Emission Limitations and Standards [A.A.C. R18-2-724.J]

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

2. Monitoring, Recordkeeping and Reporting Requirements

a. The Permittee shall report all six-minute periods in which the opacity of any plume or effluent exceeds 15 percent. [A.A.C. R18-2-724.J]

b. The Permittee shall conduct a monthly survey, of visible emissions emanating from the stack of the boiler by a certified EPA Reference Method 9 observer. [A.A.C. R18-2-306.A.3.c]

i. If the opacity of the emissions observed appears to exceed the standard, the observer shall conduct a certified EPA Reference Method 9 observation.

ii. The Permittee shall keep records of the survey and any EPA Reference Method 9 observations performed. These records shall include the emission point observed, location of observer, name of observer, date & time of observation, and the results of the observation.

iii. If the observation shows a Method 9 opacity reading in excess of 15%, the Permittee shall report this to ADEQ as an excess emission and initiate appropriate corrective action to reduce the opacity below 15%. The Permittee shall keep a record of the corrective action performed.

3. Permit Shield

Compliance with this Condition VI.D shall be deemed compliance with A.A.C. R18-2-724.J. [A.A.C. R18-2-325]

E. Sulfur Dioxide

1. Emissions Limitation [A.A.C. R18-2-724.E]

If low-sulfur diesel fuel is fired (< 0.9% by weight), the Permittee shall not cause, allow, or permit emissions of more than 1.0 pounds of sulfur dioxide per million Btu heat input.

2. Monitoring, Reporting and Record Keeping

The Permittee shall keep records of fuel supplier certifications to demonstrate that the diesel fuel is low-sulfur (< 0.9% by weight). The certification shall contain the information with regard to sulfur content and the method used to determine the sulfur content of fuel. These records shall be made available to the ADEQ inspector upon request.

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

3. Permit Shield

Compliance with Condition VI.E of this Attachment shall be deemed compliance with A.A.C. R18-2-724.E and G.

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

VII. DIRECT-FIRED FUEL BURNING EQUIPMENT REQUIREMENT

A. Applicability

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

B. Fuel Limitations

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

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

C. Particulate Matter and Opacity

1. Emission Limits/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. For 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:

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

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

Where:

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

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

- b. For 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:

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

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

Where "E" and "P" are defined as in Section above.

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 Condition VII of this Attachment shall be deemed compliance with A.A.C. R18-2-702.B.3, R18-2-730.A.1.a and b.

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

VIII. GENERATOR REQUIREMENTS

A. Applicability

[R18-2-719(A) and 40 CFR §89.2]

1. The provisions of this Section are applicable to all internal combustion engines that do not meet the definition of a non-road engine as per 40 CFR §89.2. Internal combustion engines that qualify as non-road engines as per 40 CFR §89.2 may not be required to obtain coverage under this General Permit. In order to be exempt from the requirements of this Section, the Permittee shall submit a letter to the Department explaining why the internal combustion engine meets the definition of a non-road engine as it is presented in 40 CFR §89.2. The Permittee should get prior approval from the Department before operating such equipment.
2. Until receipt of the Department's confirmation that the internal combustion engine is a non-road engine, all internal combustion engines shall comply with the requirements presented in this General Permit

B. Operational Limitations

1. Maximum Capacity Requirement

The combined capacity of all the generators at the concrete batch plant shall not exceed 660 horsepower.

[A.A.C. R18-2-306.01, -306.A.4 and -331.A.3.a]

[Material permit conditions are indicated by underline and italics]

2. Fuel Limitations

- a. Permitted Fuel Requirement

The Permittee shall burn only natural gas, liquefied petroleum gas (butane or propane), or low-sulfur diesel fuel in the generator(s), as identified on the

ATO(s).

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

b. Record Keeping Requirements

The Permittee shall maintain copies of fuel supplier certifications which verify that the sulfur content of the fuel is less than the limit specified in Condition VIII.C.2.a.v of this Attachment for generators marked as subject to NSPS on the associated ATO or Condition VIII.E.3.a of this Attachment for generators marked as not subject to NSPS on the associated ATO burning low sulfur diesel fuel.

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

C. Requirements for Stationary Compression Ignition Engines Subject to 40 CFR 60 Subpart III.

1. Applicability

This Section applies to compression ignition engines marked as subject to NSPS Subpart III on the associated ATO.

2. General Requirements

a. Operating Requirements

i. The Permittee shall operate and maintain the engine according to the manufacturer's written instructions or procedures developed by the Permittee that are 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]

ii. The Permittee shall only change those engine settings that are permitted by the manufacturer.

[40 CFR 60.4211(a)]

iii. The Permittee shall meet the requirements of 40 CFR parts 89, 94, or 1068, as they apply.

[40 CFR 60.4211(a)]

iv. The Permittee shall operate and maintain the internal combustion engine according to the manufacturer's written instructions or procedures developed by the Permittee that are approved by the engine manufacturer over the entire life of the engine.

[40 CFR 60.4206]

v. Fuel Requirements

(a) Until October 1, 2010, an engine that uses diesel fuel, shall use diesel fuel that meets the following requirements of 40 CFR 80.510(a):

(1) Sulfur content: 500 parts per million (ppm) maximum;
and

- (2) A minimum cetane index of 40 or a maximum aromatic content of 35 volume percent. [40 CFR 60.4207(a)]
- (b) After October 1, 2010, an engine that uses diesel fuel and has a displacement of less than 30 liters per cylinder, shall use diesel fuel that meets the following requirements of 40 CFR 80.510(b):
 - (1) Sulfur content: 15 ppm maximum; and
 - (2) A minimum cetane index of 40 or a maximum aromatic content of 35 volume percent. [40 CFR 60.4207(b)]
- vi. Additional Emergency Engine Requirements [40 CFR 60.4211(e), 60.4209(a), A.A.C. R18-2-306.A.3.c, -306.A.4, and -331.A.3.c] [Material permit conditions are indicated by underline and italics]
 - (a) *The Permittee shall install a non-resettable hour meter prior to startup of the engine.*
 - (b) Emergency internal combustion engines may be operated for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by Federal, State, or local government, the manufacturer, the vendor, or the insurance company associated with the engine.
 - (c) The Permittee shall not operate the emergency engine for the purposes of maintenance checks and readiness testing for more than 100 hours per year unless the Permittee maintains records identifying the Federal, State, or local standards that require maintenance and testing of emergency internal combustion engines beyond 100 hours per year. Copies of such records shall be provided to ADEQ upon request.
 - (d) The Permittee may petition the Administrator 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 internal combustion engines beyond 100 hours per year.
 - (e) The Permittee shall not operate emergency engines except for emergency purposes, and maintenance and testing. There is no time limit on the use of the engine in emergency situations.
 - (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.

b. Emission Limitations and Standards

i. Non-emergency Engines

2007 model year and later non-emergency internal combustion engines with a displacement of less than 30 liters per cylinder shall comply with the appropriate emission limitation as follows:

[40 CFR 60.4204(b)]

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

- (b) 2007 model year and later engines with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder shall meet the emissions standards in 40 CFR 94.8, as applicable, for all pollutants, for the same displacement and maximum engine power.

[40 CFR 60.4201(d)]

ii. Emergency Engines

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

[40 CFR 60.4205(b)]

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

[40 CFR 60.4202(a)]

- (1) For engines with a maximum engine power less than 50 horsepower:
- a) 2007 model year engines shall meet the emission standards for new nonroad compression ignition engines in 40 CFR 89.112 and 40 CFR 89.113, for all pollutants, for the same model year and maximum engine power, and
- b) 2008 model year and later engines shall meet the emission standards for new nonroad compression ignition engines in 40 CFR 1039.104, 40 CFR 1039.105, 40 CFR 1039.107, 40 CFR 1039.115, and Table 2 to 40 CFR part

- (2) 2007 model year and later engines, with a maximum engine power greater than or equal to 50 horsepower, shall meet the emission standards for new nonroad compression ignition engines in 40 CFR 89.112 and 40 CFR 89.113, for all pollutants, for the same model year and maximum engine power.

[40 CFR 60.4202(a)(2)]

- (b) 2007 model year and later engines with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder shall meet the emission standards for new marine compression ignition engines in 40 CFR 94.8, as applicable, for all pollutants, for the same displacement and maximum engine power.

[40 CFR 60.4202(c)]

- c. Notification and Reporting Requirements [40 CFR 60.4214(a) and 60.7(a)(1)]

Non-emergency Engines

The Permittee of a non-emergency internal combustion engine that has a displacement greater than or equal to 10 liters per cylinder, or is a pre-2007 model year engine that is greater than 175 horsepower and not certified shall:

- i. Submit an initial notification of the date construction (or reconstruction as defined under 40 CFR 60.15) of an affected facility is commenced postmarked no later than 30 days after such date. The notification shall include:
 - (a) Name and address of the owner or operator;
 - (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.
- ii. 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 internal combustion engine is a certified engine,

documentation from the manufacturer that the engine is certified to meet the emission standards; or

- (d) If the internal combustion engine is not a certified engine, documentation that the engine meets the emission standards.

d. Monitoring and Record Keeping Requirements

- i. The Permittee of a 2007 model year and later internal combustion engine that is required to comply with the emission standards specified in Conditions VIII.C.2.b.i or VIII.C.2.b.ii of this Attachment shall comply by purchasing an engine certified to the emission standards in Condition VIII.C.2.b of this Attachment, as applicable, for the same model year and maximum engine power. The engine shall be installed and configured according to the manufacturer's specifications.

[40 CFR 4211(c)]

- ii. The Permittee of a fire pump engine that is manufactured during or after the model year that applies to the fire pump engine power (EP) rating in the following table and is required to comply with the emission standards specified in Conditions VIII.C.3.a.ii, VIII.C.4.a.ii, and VIII.C.5.a.ii of this Attachment, shall comply by purchasing an engine certified to the emission standards in Conditions VIII.C.3.a.ii, VIII.C.4.a.ii, and VIII.C.5.a.ii of this Attachment, 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.

Engine Power (EP) (horsepower)	Model Year
EP<100	2011
100≤EP<175	2010
175≤EP<660	2009

[40 CFR 4211(c)]

- iii. 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 Conditions VIII.C.3.a.i, VIII.C.4.a.i, VIII.C.4.a.iii, VIII.C.5.a.i, and VIII.C.6.a of this Attachment, shall demonstrate compliance according to one of the methods specified below:

- (a) Purchasing an engine certified according to 40 CFR part 89 or 40 CFR part 94, as applicable, for the same model year and maximum engine power. The engine shall be installed and configured according to the manufacturer's specifications.
- (b) Keeping records of performance test results for each pollutant for a test conducted on a similar engine. The test shall have been conducted using the methods specified in this 40 CFR 60.4212 or 4213, and the methods shall have been followed correctly.

- (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.
- (e) 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)]

- iv. A fire pump engine that is manufactured prior to the model years specified in Condition VIII.C.2.d.ii of this Attachment and is required to comply with the emissions standards specified in Conditions VIII.C.3.a.ii, VIII.C.4.a.ii, and VIII.C.5.a.ii, of this Attachment shall demonstrate compliance according to one of the methods specified in Condition VIII.C.2.d.iii(a) through VIII.C.2.d.iii(e) of this Attachment.

[40 CFR 60.4211(b)]

- v. An internal combustion engine that is required to comply with the emission standards specified in Conditions VIII.C.3.a.iii or VIII.C.4.a.iii of this Attachment shall demonstrate compliance according to the requirements specified below:

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

- (b) For engines with a displacement of greater than or equal to 30 liters per cylinder, conducting annual performance tests to demonstrate continuous compliance with the emission standards as specified in 40 CFR 60.4213.

[40 CFR 60.4211(d)]

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

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

e. Testing Requirements

[40 CFR 60.4212 and 60.4213]

- i. 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.
- ii. The Permittee of an internal combustion engine with a displacement of greater than or equal to 30 liters per cylinder shall conduct performance tests according to 40 CFR 60.4213.

f. Permit Shield

Compliance with the conditions of this Part shall be deemed compliance with 40

CFR 60.4201(a) and (d), 60.4202(a) and (c), 60.4204(b), 60.4205(b), 60.4206, 60.4207(a) and (b), 60.4209(a), 60.4211(a), (b), (c), (d) and (e), 60.4212, 60.4213, and 60.4214(a).

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

3. Particulate Matter

a. Emissions Limitations and Standards

- i. Pre-2007 model year engines with a displacement of less than 10 liters per cylinder shall meet the following particulate matter emission standards:

Maximum Engine Power (EP) (horsepower)	Emissions Limit (grams/horsepower-hour)
EP<11	0.75
11≤EP<50	0.60
50≤EP<175	N/A
EP≥175	0.40

[40 CFR 60.4204(a) and 60.4205(a)]

- ii. Fire pump engines with a displacement of less than 30 liters per cylinder shall meet the following particulate matter emission standards:

Maximum Engine Power (EP) (horsepower)	Model year	Emissions Limit (grams/horsepower-hour)
EP<11	2010 and earlier	0.75
	2011 and later	0.30
11≤EP<25	2010 and earlier	0.60
	2011 and later	0.30
25≤EP<50	2010 and earlier	0.60
	2011 and later	0.22
50≤EP<75	2010 and earlier	0.60
	2011 and later	0.30
75≤EP<100	2010 and earlier	0.60
	2011 and later	0.30
100≤EP<175	2009 and earlier	0.60
	2010 and later	0.22
175≤EP<300	2008 and earlier	0.40
	2009 and later	0.15
300≤EP<600	2008 and earlier	0.40
	2009 and later	0.15
600≤EP<660	2008 and earlier	0.40

Maximum Engine Power (EP) (horsepower)	Model year	Emissions Limit (grams/horsepower-hour)
	2009 and later	0.15

[40 CFR 60. 4205(c)]

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

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

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

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

- iii. Engines with a displacement of greater than 30 liters per cylinder shall meet the following emission standards:

- (a) Reduce PM emissions by 60% or more; or
(b) Limit the emissions of PM in the engine exhaust to 0.11 grams per horsepower-hour

[40 CFR 60.4204(c)(2) and 60.4205(d)(2)]

b. Air Pollution Control Requirements

If a non-emergency engine is equipped with a diesel particulate filter to comply with the emission standards in Condition VIII.C.3.a, *the Permittee shall install, maintain and operate the particulate filter in accordance with good air pollution control practices for minimizing emissions.*

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

[Material permit conditions are indicated by underline and italics]

c. Monitoring and Record Keeping Requirements

- i. If a non-emergency engine is equipped with a diesel particulate filter to comply with the emission standards in Condition VIII.C.3.a, *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]

- ii. 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 onsite and made available to ADEQ upon request.

- iii. If the 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)]
- iv. If the Permittee elects to meet the emission limitations contained in Condition VIII.C.3.a.ii(a) or (b) of this Attachment, the Permittee shall maintain records, including manufacturer specifications, demonstrating that the engine meets the horsepower and RPM specifications. [A.A.C. R18-2-306.A.4]

d. Permit Shield

Compliance with the conditions of this Part shall be deemed compliance with 40 CFR 60.4204(a), 60.4204(c)(2), 60.4205(a), 60.4205(c), 60.4205(d)(2), 60.4209(b), 60.4211(a), and 60.4214(c). [A.A.C. R18-2-325]

4. Nitrogen Oxides

a. Emissions Limitations and Standards

- i. Pre-2007 model year internal combustion engines that are not fire pump engines that have a displacement of less than 10 liters per cylinder shall meet the following emission standards:

Maximum Engine Power (EP) (horsepower)	Emissions Limit (grams/horsepower-hour)
EP<11	7.8*
11≤EP <50	7.1*
EP≥50	6.9

* indicates nonmethane hydrocarbons (NMHC)+NO_x

[40 CFR 60.4204(a) and 60.4205(a)]

- ii. Fire pump engines that have a displacement of less than 30 liters per cylinder shall meet the following emission standards:

Maximum Engine Power (EP) (horsepower)	Model year	Emissions Limit* (grams/horsepower-hour)
EP<11	2010 and earlier	7.8
	2011 and later	5.6
11≤EP <25	2010 and earlier	7.1

Maximum Engine Power (EP) (horsepower)	Model year	Emissions Limit* (grams/horsepower-hour)
	2011 and later	5.6
25≤EP <50	2010 and earlier	7.1
	2011 and later	5.6
50≤EP <75	2010 and earlier	7.8
	2011 and later	3.5
75≤EP <100	2010 and earlier	7.8
	2011 and later	3.5
100≤EP <175	2009 and earlier	7.8
	2010 and later	3.0
175≤EP <300	2008 and earlier	7.8
	2009 and later	3.0
300≤EP <600	2008 and earlier	7.8
	2009 and later	3.0
600≤EP <660	2008 and earlier	7.8
	2009 and later	3.0

* indicates NMHC+NO_x

[40 CFR 60. 4205(c)]

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

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

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

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

- iii. Pre-2007 model year internal combustion engines that have a displacement of greater than 10 liters per cylinder but less than 30 liters per cylinder that are not fire pump engines shall comply with the emission standards in 40 CFR 94.8(a)(1) as follows:

[40 CFR 60.4204(a) and 60.4205(a)]

- (a) 17.0 g/kW-hr when the maximum test speed is less than 130 rpm.
- (b) $45.0 \times N^{-0.20}$ g/kW-hr when the maximum test speed is at least 130 but less than 2000 rpm, where N is the maximum test speed of the engine in revolutions per minute.

- (c) 9.8 g/kW-hr when the maximum test speed is 2000 rpm or more.
- (d) All speed-dependent standards in this Part shall be rounded to the nearest 0.1 g/kW-hr.

iv. Internal combustion engines with a displacement of greater than 30 liters per cylinder shall meet the following emission standards:

- (a) Reduce NO_x emissions by 90% or more; or
- (b) Limit the emissions of NO_x in the engine exhaust to 1.2 grams per horsepower-hour

[40 CFR 60.4204(c)(1) and 60.4205(d)(1)]

v. If the Permittee elects to meet the emission limitations contained in Condition VIII.C.4.a.iv(a) or (b), the Permittee shall maintain records, including manufacturer specifications, demonstrating that the engine meets the horsepower and RPM specifications.

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

b. Permit Shield

Compliance with the conditions of this Part shall be deemed compliance with 40 CFR 60.4204(a), 60.4204(c)(1), 60.4205(a), 60.4205(c), and 60.4205(d)(1).

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

5. Carbon Monoxide

a. Emissions Limitations and Standards

i. Pre-2007 model year internal combustion engines with a displacement of less than 10 liters per cylinder shall meet the following emission standards:

[40 CFR 60.4204(a) and 60.4205(a)]

Maximum Engine Power (EP) (horsepower)	Emissions Limit (grams/horsepower-hour)
EP<11	6.0
11≤EP<25	4.9
25≤EP<50	4.1
50≤EP<175	N/A
EP≥175	8.5

ii. Fire pump engines that have a displacement of less than 30 liters per cylinder shall meet the following emission standards:

[40 CFR 60.4204(a) and 60.4205(a)]

Maximum Engine Power (EP) (horsepower)	Model year	Emissions Limit* (grams/horsepower-hour)
EP<11	2010 and earlier	6.0
	2011 and later	N/A
11≤EP<25	2010 and earlier	4.9
	2011 and later	N/A
25≤EP<50	2010 and earlier	4.1
	2011 and later	N/A
50≤EP<75	2010 and earlier	3.7
	2011 and later	N/A
75≤EP<100	2010 and earlier	3.7
	2011 and later	N/A
100≤EP<175	2009 and earlier	3.7
	2010 and later	N/A
175≤EP<300	2008 and earlier	2.6
	2009 and later	N/A
300≤EP<600	2008 and earlier	2.6
	2009 and later	N/A
600≤EP<660	2008 and earlier	2.6
	2009 and later	N/A

[40 CFR 60.4205(c)]

b. Permit Shield

Compliance with the conditions of this Part shall be deemed compliance with 40 CFR 60.4204(a), 60.4205(a) and 60.4205(c).

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

6. Hydrocarbon

a. Emissions Limitations and Standards

Pre-2007 model year internal combustion engines that have a displacement of less than 10 liters per cylinder and a maximum engine power rating greater than or equal to 175 horsepower shall not emit more than 1.0 gram of hydrocarbons per horsepower hour.

[40 CFR 60.4204(a) and 60.4205(a)]

b. Permit Shield

Compliance with the conditions of this Part shall be deemed compliance with 40 CFR 60.4204(a) and 60.4205(a).

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

D. Stationary Spark Ignition Engines Subject to NSPS 40 CFR 60 Subpart JJJJ.

1. Applicability

This Section applies to stationary spark ignition engines marked as subject to NSPS Subpart JJJJ on the associated ATO.

2. Operating Limitations

a. Fuel Limitations

The Permittee shall use only propane, liquefied petroleum gas, or natural gas in the SI ICE.

[A.A.C. R18-2-306.A.2, -306.01, and -331.A.3.a]

[Material Permit Conditions are indicated by underline and italics]

b. Engine Importation

i. After July 1, 2010, the Permittee shall not install stationary SI ICE with a maximum engine power of less than 500 HP that does not meet the applicable requirements in 40 CFR 60.4233. [40 CFR 60.4236(a)]

ii. After July 1, 2009, the Permittee shall not install stationary SI ICE with a maximum engine power of greater than or equal to 500 HP that does not meet the applicable requirements in 40 CFR 60.4233, except that lean burn engines with a maximum engine power greater than or equal to 500 HP and less than 1,350 HP that does not meet the applicable requirements in 40 CFR 60.4233 shall not be installed after January 1, 2010. [40 CFR 60.4236(b)]

iii. For emergency stationary SI ICE with a maximum engine power of greater than 19 KW (25 HP), the Permittee shall not install an engine that do not meet the applicable requirements in 40 CFR 60.4233 after January 1, 2011. [40 CFR 60.4236(c)]

iv. In addition to the requirements specified in 40 CFR 60.4231 and 60.4233, the Permittee shall not import any stationary SI ICE less than or equal to 19 KW (25 HP), stationary rich burn liquefied petroleum gas SI ICE, and stationary gasoline SI ICE that does not meet the applicable requirements specified in Conditions VIII.D.2.b.i, ii, and iii, after the date specified in such conditions. [40 CFR 60.4236(d)]

v. The requirements of this section do not apply to stationary SI ICEs that have been removed from one existing location and reinstalled at a new location. [40 CFR 60.4236(e)]

c. General Monitoring and Recordkeeping Requirements [A.A.C. R18-2-306.A.3.a]

i. The Permittee shall maintain a record of the fuel sulfur content and lower heating value of the fuel.

ii. *The Permittee shall install non-resettable hour meter on the SI ICE.*

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

3. Emission Limitations

- a. The Permittee shall meet the emission standards in 40 CFR 60.4231(a) for any stationary SI ICE with a maximum engine power less than or equal to 19 KW (25 HP) manufactured on or after July 1, 2008 by purchasing an engine that is certified to the emission standards and other requirements for new non-road SI engines in 40 CFR part 90. [40 CFR 60.4233(a)]
- b. For any stationary SI ICE with a maximum engine power greater than 19 KW (25 HP) manufactured on or after the applicable date in 40 CFR 60.4230(a)(4) that is a rich burn engine that uses liquefied petroleum gas, the Permittee must comply with the emission standards in 40 CFR 60.4231(c) for the stationary SI ICE. The Permittee shall comply with the emission standards in 40 CFR 60.4231(c) by purchasing an engine that is certified to the emission standards and other requirements for new non-road SI engines included in 40 CFR 1048 or the Phase I emission standards and other requirements in 40 CFR 90.103 as applicable to the particular engine. The Permittee may purchase an SI ICE with a maximum engine power less than or equal to 40 HP with a total displacement less than or equal to 1000 cubic centimeters that is certified to the emission standards and other requirements for new non-road engines in 40 CFR 90. [40 CFR 60.4233(c)]
- c. For any 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) the Permittee must comply with the emission standards for field testing in 40 CFR 1048.101(c) for any non-emergency stationary SI ICE and with the emission standards in Table 1 of 40 CFR 60 Subpart JJJ for any emergency stationary SI ICE. For any 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 was certified to the standards in Table 1 of 40 CFR 60 Subpart JJJ applicable to engines with a maximum engine power greater than or equal to 100 HP and less than 500 HP, the Permittee may optionally choose to meet those standards. [40 CFR 60.4233(d)]
- d. For any 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) the Permittee shall comply with the emission standards in Table 1 of 40 CFR 60 Subpart JJJ for the stationary SI ICE by purchasing an engine that is certified to meet these standards. [40 CFR 60.4233(e)]
- e. The Permittee shall operate and maintain stationary the SI ICE to achieve the emission standards applicable to the SI ICE. [40 CFR 60.4234]

4. Compliance Demonstration Requirements

[40 CFR 60.4243.a, b, d, e, f, and g]

- a. The Permittee shall comply with the emission limitations by purchasing an engine that is certified to the emission standards in 40 CFR 60.4231(a) through (c), as applicable. The Permittee shall also meet the requirements as specified in 40 CFR Part 1068, subparts A through D, as they apply.

- b. 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.
- c. The Permittee shall meet one of the following requirements:
 - i. 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.
 - ii. 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 must demonstrate compliance according to 40 CFR 60.4243(a)(2)(i) through (iii), as appropriate.
- d. If the Permittee is required to comply with the emission standards specified in 40 CFR 60.4233(d) or (e), the Permittee must demonstrate compliance according to one of the following methods:
 - i. Purchasing an engine certified according to procedures specified in 40 CFR 60 Subpart JJJJ, for the same model year and demonstrating compliance according to one of the methods specified in paragraph (a), above.
 - ii. Purchasing a non-certified engine and demonstrating compliance with the emission standards specified in 40 CFR 60.4233(d) or (e) and according to the requirements specified in 40 CFR 60.4244, as applicable, and according to paragraphs (b)(2)(i) and (ii) of 40 CFR 60.4243.
- e. Emergency stationary ICE may be operated for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by Federal, State or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours per year. There is no time limit on the use of emergency stationary ICE in emergency situations. The Permittee may petition the Administrator 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 year. Emergency stationary ICE may operate up to 50 hours per year in non-emergency situations, but those 50 hours are counted towards the 100 hours per year provided for maintenance and testing. The 50 hours per year for non-emergency situations cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity. For emergency engines, any operation

other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year is prohibited.

- f. A stationary SI natural gas fired engines may operate using propane for a maximum of 100 hours per year as an alternative fuel solely during emergency operations, but the Permittee 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 shall conduct a performance test to demonstrate compliance with the emission standards of 40 CFR 60.4233.
- g. For any stationary SI internal combustion engine that is less than or equal to 500 HP and is non-certified engine or is certified but has not been operated and maintained according to the manufacturer's written emission-related instructions, the Permittee shall perform initial performance testing as indicated in 40 CFR 60.4243. The Permittee 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).
- h. 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.
- i. For any 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 must comply with the emission standards specified in sections 60.4233(b) or (c), the Permittee shall comply by one of the following methods:
 - i. Purchasing an engine certified according to 40 CFR Part 1048. The engine shall be installed and configured according to the manufacturer's specifications.
 - ii. 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 permit condition and these methods must have been followed correctly.
 - iii. Keeping records of engine manufacturer data indicating compliance with the standards.
 - iv. Keeping records of control device vendor data indicating compliance with the standards.

5. Monitoring, Recordkeeping, and Reporting Requirements [40 CFR 60.4245]

- a. The Permittee shall keep records of the following:
 - i. All notifications submitted to comply with this permit condition and all

documentation supporting any notification.

- ii. Maintenance conducted on the engine.
 - iii. If the stationary SI internal combustion engine 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 and 1048.
 - iv. If the stationary SI internal combustion engine 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.
- b. For all stationary SI emergency 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. For all stationary SI emergency 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. For all stationary SI emergency ICE greater than 25 HP and less than 130 HP manufactured on or after July 1, 2008, that do not meet the standards applicable to non-emergency engines, the Permittee shall keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The Permittee shall document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation.
- c. For any 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 the Permittee shall submit an initial notification as required in 40 CFR 60.7(a)(1). The notification must include the following:
- i. Name and address of the Permittee;
 - ii. The address of the affected source;
 - iii. Engine information including make, model, engine family, serial number, model year, maximum engine power, and engine displacement;
 - iv. Emission control equipment; and
 - v. Fuel used.
- d. If a performance test is required to be conducted, the Permittee shall submit a copy of each performance test as conducted in 40 CFR 60.4244 within 60 days after the test has been completed.

6. Performance Testing [40 CFR 60.4244]

Any required performance test shall be conducted in accordance with the procedures in paragraphs (a) through (f) of 40 CFR 60.4244.

7. Permit Shield [A.A.C. R18-2-325]

Compliance with the conditions of this Section shall be deemed compliance with 40 CFR 60.4236(a) through (e); 60.4237; 60.4233(a), (c), (d), (e); 60.4234; 60.4243(a), (b), (d), (e), (f), (g); 60.4244; and 60.4245, for the activities subject to this Section.

E. Generators Not Subject To Any NSPS Requirements

1. Applicability

This Section applies to internal combustion engines marked as not subject to NSPS on the associated ATO.

2. Particulate Matter and Opacity

- a. Emission Limitations and Standards

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

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

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

Where:

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

Q = the heat input in million Btu per hour

- ii. For the purposes of the calculations required in Condition VIII.E.2.a.i. of this Attachment, the heat input shall be the aggregate heat content of all fuels whose products of combustion pass through a stack or other outlet. The total heat input of all operating fuel-burning units at a plant or premises shall be used for determining the maximum allowable amount of particulate matter which may be emitted.

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

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

- (a) The Permittee shall not cause, allow or permit to be emitted into the atmosphere from any stationary rotating machinery, smoke for any period greater than 10 consecutive seconds which exceeds 40% opacity.

- (b) Visible emissions when starting cold equipment shall be exempt from this requirement for the first 10 minutes.

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

- i. A certified EPA Reference Method 9 observer shall conduct a monthly survey of visible emissions emanating from the generator. If the opacity of the emissions observed appears to exceed the standard, the observer shall conduct a certified EPA Reference Method 9 observation. The Permittee shall keep records of the initial survey and any EPA Reference Method 9 observations performed. These records shall include the emission point observed, location of the observer, name of the observer, date and time of the observation, and the results of the observation. If the observation results in an exceedance of the opacity limit, the Permittee shall take corrective action and log all such actions. Such exceedance shall be reported as excess emissions in accordance with Condition XI.A.1 of Attachment "A".
- ii. 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.

- c. Testing Requirement

The Permittee shall conduct performance tests at such times as may be required by the Director.

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

- d. Permit Shield

Compliance with 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]

3. Sulfur Dioxide

- a. Emission Limitations and Standards

- i. 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]
- ii. The Permittee shall not burn high-sulfur diesel fuel (sulfur content greater than 0.9 % by weight) in the generator(s). [A.A.C. R18-2-719.H]

- b. Monitoring, Recordkeeping, and Reporting

- i. The Permittee shall keep daily records of the sulfur content and lower heating value of the fuel being fired in the generator(s). The Permittee shall keep records of fuel supplier certifications to demonstrate compliance with the sulfur content limit specified in Condition VIII.E.3.a of this Attachment. The certification shall contain the sulfur content of

the fuel and the method used to determine the sulfur content of the fuel. These records shall be made available to ADEQ upon request.

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

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

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

c. 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]

IX. FUGITIVE DUST REQUIREMENTS

A. Applicability

This Section applies to any 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 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 not cause, allow or permit visible emissions from any point source, in excess of 20% opacity.

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

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

- i. 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]

- ii. 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]

- iii. 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]

- iv. 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]
- v. 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]
- vi. 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]
- vii. Operate stacking and reclaiming machinery utilized at storage piles at all times with a minimum fall of material, or with the use of spray bars and wetting agents; [A.A.C. R18-2-607.B]
- viii. 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

Haul Roads and Storage Piles

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

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

[Material Permit Condition is indicated by underline and italics]

3. Monitoring and Recordkeeping Requirements

- a. The Permittee shall maintain records of the dates on which any of the activities listed in Conditions IX.B.1.c.i through IX.B.1.c.viii above were performed and the control measures that were adopted. [A.A.C. R18-2-306.A.3.c]

b. Opacity Monitoring Requirements

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

- (a) If the six-minute opacity of the visible emission is less than or

equal to applicable opacity standard, the observer shall make a record of the following:

- (1) Location, date, and time of the observation; and
 - (2) The results of the Method 9 observation.
- (b) If the six-minute opacity of the visible emission exceeds applicable opacity standard, then the Permittee shall do the following:
- (1) Adjust or repair the controls or equipment to reduce opacity to below the applicable standard; and
 - (2) Report it as an excess emission under Section XI.A of Attachment "A".

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

4. Permit Shield

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

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

X. MOBILE SOURCE REQUIREMENTS

A. Applicability

The requirements of this Section are applicable to mobile sources which either move while emitting air contaminants or are frequently moved during the course of their utilization but are not classified as motor vehicles, agricultural vehicles, or agricultural equipment used in normal farm operations. Mobile sources shall not include portable sources as defined in A.A.C. R18-2-101.90.

[A.A.C. R18-2-801.A]

B. Particulate Matter and Opacity

1. Emission Limitations/Standards
 - a. Off-Road Machinery

The Permittee shall not cause, allow, or permit to be emitted into the atmosphere from any off-road machinery, smoke for any period greater than ten consecutive seconds, the opacity of which exceeds 40%. Visible emissions when starting cold equipment shall be exempt from this requirement for the first ten minutes. Off-road machinery shall include trucks, graders, scrapers, rollers, and other construction and mining machinery not normally driven on a completed public roadway.

[A.A.C. R18-2-802.A and -802.B]

- b. Roadway and Site Cleaning Machinery
 - i. The Permittee shall not cause, allow or permit to be emitted into the

atmosphere from any roadway and site cleaning machinery smoke or dust for any period greater than ten consecutive seconds, the opacity of which exceeds 40%. Visible emissions when starting cold equipment shall be exempt from this requirement for the first ten minutes.

[A.A.C. R18-2-804.A]

- ii. The Permittee shall take reasonable precautions, such as the use of dust suppressants, before the cleaning of a site, roadway, or alley. Earth or other material shall be removed from paved streets onto which earth or other material has been transported by trucking or earth moving equipment, erosion by water or by other means.

[A.A.C. R18-2-804.B]

- c. Unless otherwise specified, no mobile source shall emit smoke or dust the opacity of which exceeds 40%.

[A.A.C. R18-2-801.B]

2. Recordkeeping Requirement

The Permittee shall keep a record of all emissions related maintenance activities performed on the Permittee's mobile sources stationed at the facility as per manufacturer's specifications.

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

3. Permit Shield

Compliance with this Section shall be deemed compliance with A.A.C. R18-2-801, A.A.C. R18-2-802.A, -804.A and -804.B.

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

XI. CONDITIONS SPECIFIC TO PORTABLE SOURCES

A. Equipment Identification

[A.A.C. R18-2-315.A.2 and -324.E]

The equipment serial number or equipment identification number, utilizing not less than four-inch high characters, shall be stenciled on each permitted piece of equipment, and referenced in all correspondence with the Department.

B. Move Notice

[A.A.C. R18-2-324.D and A.A.C. R18-2-306.A.5]

A portable source may be transferred from one location to another provided that the Permittee of such equipment notifies the Director, and any control officer who has jurisdiction over the geographic area that includes the new location, of the transfer by certified mail at least ten (10) working days before the transfer. The location change shall include the following:

1. A description of **all** permitted equipment (under the same Permittee) which is going to be present at the site including the permit number, the manufacturer, the model number, the serial number, and equipment ID number(s) for such equipment;
2. The address and description of the present location of the equipment;
3. The address and description of the location to which the equipment is to be transferred, including the availability of all utilities, such as water and electricity, necessary for the proper operation of all control equipment;

4. The date on which equipment is to be moved;
5. The date on which operation of the equipment will begin at the new location;

C. Renting or Leasing Permitted Equipment

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

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

D. Portable Sources Operating Solely in One County

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

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

XII. OTHER PERIODIC ACTIVITY REQUIREMENTS

A. Abrasive Blasting

Particulate Matter and Opacity

1. Emission Limitations/Standards

- a. The Permittee shall not cause or allow sandblasting or other abrasive blasting without minimizing dust emissions to the atmosphere through the use of good modern practices. Good modern practices include:
 - i. Wet blasting;
 - ii. Effective enclosures with necessary dust collecting equipment; or
 - iii. 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]

2. Monitoring and Recordkeeping Requirement

Each time an abrasive blasting project is conducted, the Permittee shall log in ink or in an electronic format, a record of the following:

- a. The date the project was conducted;
- b. The duration of the project; 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 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:

- i. 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]

- ii. The Permittee 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]

- iii. For the purposes of Conditions XII.B.1.a.ii and XII.B.1.a.iv, 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 XII.B.1.a.iii(a) through XII.B.1.a.iii(c) below, or which exceeds any of the following percentage composition limitations, referred to the total volume of solvent:

- (a) A combination of the following types of compounds having an olefinic or cyclo-olefinic type of unsaturation-hydrocarbons, alcohols, aldehydes, esters, ethers, or ketones: 5 percent.
- (b) A combination of aromatic compounds with eight or more carbon atoms to the molecule except ethylbenzene: 8 percent.

(c) A combination of ethylbenzene, ketones having branched hydrocarbon structures, trichloroethylene or toluene: 20 percent.
[A.A.C. R18-2-727.C]

iv. 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 XII.B.1.a.iii(a) through XII.B.1.a.iii(c) above, it shall be considered to be a member of the group having the least allowable percent of the total volume of solvents.

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

b. Monitoring and Recordkeeping Requirements

i. Each time a spray painting project is conducted, the Permittee shall log in ink, or in an electronic format, a record of the following:

(a) The date the project was conducted;

(b) The duration of the project;

(c) Type of control measures employed;

(d) Material Safety Data Sheets for all paints and solvents used in the project; and

(e) The amount of paint consumed during the project.

ii. Architectural coating and spot painting projects shall be exempt from the recordkeeping requirements of Condition XII.B.1.b.i of this Attachment.

[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.

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

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]

b. Permit Shield

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

[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]

DRAFT

**GENERAL AIR QUALITY CONTROL PERMIT
FOR
CONCRETE BATCH PLANTS
ATTACHMENT “C”: ADDITIONAL REQUIREMENTS FOR
SOURCES OPERATING IN PIMA COUNTY**

I. APPLICABILITY OF MULTIPLE PERMIT CONDITIONS

[A.R.S. § 49-402(D)]

The Permittee of a facility operating in Pima County shall comply with this attachment in addition to Attachments “A and B”. 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.

II. CONCRETE BATCH PLANT REQUIREMENTS

[P. C. C. 17.16.380]

A. Emission Limitations

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

B. Permit Shield

Compliance with Condition II shall be deemed compliance with P.C.C. 17.16.380.

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

III. DIRECT-FIRED FUEL BURNING EQUIPMENT REQUIREMENTS

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

A. Particulate Matter Emission Limitation 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:

1. For 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:

[P.C.C. 17.16.430.A.1.a]

$$E = 3.59 P^{0.62}$$

Where:

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

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

2. For 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:

[P.C.C. 17.16.430.A.1.b]

$$E = 17.31 P^{0.16}$$

Where “E” and “P” are defined as in Section above.

B. Permit Shield

Compliance with Condition III of this Attachment shall be deemed compliance with P.C.C 17.16.430.A.1.a and b.

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

IV. FUGITIVE EMISSIONS REQUIREMENTS

A. Fugitive Dust Producing Activities

[P. C. C. 17.16.060]

1. The Permittee shall control windblown dust, dust from haul roads, and dust emitted from land clearing, earthmoving, demolition, trenching, blasting, road construction, mining, racing events, and other activities, as applicable.
2. Until the area becomes permanently stabilized by paving, landscaping or otherwise, dust emissions shall be controlled by applying adequate amounts of water, chemical stabilizer, or other effective dust suppressant.
3. The Permittee shall not leave land in such a state that fugitive dust emissions (including windblown dust or dust caused by vehicular traffic on the area) would violate Condition V.C of Attachment “C”.

B. Vacant Lots and Open Spaces

[P.C.C. 17.16.080]

1. The Permittee shall minimize dust emissions from the construction, use, alteration, repair, demolition, clearing, leveling, or excavation of any vacant lot, parking area, housing plot, building site, sales lot, playground, livestock feedlot, or other open area, other than those solely used for soil-cultivation or vegetative crop-producing and harvesting agricultural purposes, by intermittently applying water or other effective dust suppressants to the area, paving, detouring, barring access, or other equivalently effective controls.
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 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. This Section shall not apply when wind speeds exceed twenty-five miles per hour (as recorded by the National Weather Service or as estimated by an enforcement officer

using the Beaufort Scale of Wind Speed Equivalents) unless control measures have not been taken or were not commensurate with the size or scope of the sources of dust.

C. Roads and Streets

[P.C.C. 17.16.090]

1. Dust emissions from the construction phase of a new road must be minimized by applying the same measures specified in Condition IV.A of this Attachment.
2. No new unpaved private driveway shall be constructed unless the road will not be used by more vehicular traffic than that associated with a one - or two-family private residence, and the road will not be adjacent to any recreational, institutional, educational, or retail sales facility.
3. No new unpaved service road or unpaved haul road shall be constructed unless dust will be suppressed after construction by intermittently watering, limiting access, or applying chemical dust suppressants to the road, in such a way that visible dust emissions caused by vehicular traffic on the road do not violate Section V.C of this Attachment.
4. No new road other than a private driveway shall be constructed unless the paving specifications are those defined by, or equivalent to those of, the planning department or highway department of the jurisdictional agency.
5. The surfacing of roadways with asbestos tailings is prohibited.

D. Particulate Materials

[P.C.C. 17.16.100]

1. Dust emissions from construction activity shall be effectively controlled by applying adequate amounts of water or other equivalently effective dust controls.
2. 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.
3. Emissions from a sandblasting or other abrasive blasting operation shall be effectively controlled by applying water to suppress visible emissions (wet blasting), enclosing the operation, or use of other equivalently effective controls.

E. Storage Piles

[P. C. C. 17.16.110]

1. The Permittee shall not cause, suffer, allow, or permit organic or inorganic dust producing materials to be stacked, piled or otherwise stored without taking reasonable precautions such as chemical stabilization, wetting, or covering to prevent excessive amounts or particulate matter from becoming airborne.
2. 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 minimize and control to ensure compliance with Condition IV.A of this Attachment.

F. Permit Shield

Compliance with Condition IV shall be deemed compliance with P.C.C. 17.16.060, P.C.C. 17.16.080, P.C.C. 17.16.090, P.C.C. 17.16.100 and P.C.C. 17.16.110.

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

V. OTHER SPECIFIC REQUIREMENTS

A. Fuel Requirements

[P.C.C. 17.16.010.C]

The Permittee of any portable or stationary equipment, which burns any material, except natural gas, shall keep complete records of the materials used as fuel.

B. Opacity Limitations

1. The Permittee shall not cause or permit the effluent from a single emission point, multiple emission point, or fugitive emissions source to have an average optical density equal to or greater than the opacity limiting standards specified in TABLE 4 at the end of Condition V.B of this Attachment, or as otherwise specified in this permit, subject to the following provisions:

[P.C.C. 17.16.040]

- a. Opacities (optical densities), as measured in accordance with Method 9, of an effluent shall be measured by a certified visible emissions evaluator with his natural eyes, approximately following the procedures which were used during his certification, or by an approved and precisely calibrated in-stack monitoring instrument.
 - b. A violation of an opacity standard shall be determined by measuring and recording a set of consecutive, instantaneous opacities, and calculating the arithmetic average of the measurements within the set unless otherwise noted herein. The measurements shall be made at approximately fifteen-second intervals for a period of at least six minutes, and the number of required measurements shall be as specified in TABLE 4. Sets need not be consecutive in time, and in no case shall two sets overlap. If the average opacity of the set of instantaneous measurements exceeds the maximum allowed by any rule, this shall constitute a violation.
 - c. The use of air or other gaseous diluents solely for the purpose of achieving compliance with an opacity standard is prohibited.
 - d. When the presence of uncombined water is the only reason for failure of a source to otherwise meet the requirements of this article, this article shall not apply.
2. Except for sources located within the boundaries of the Tohono O'Odham, Pasqua-Yaqui, and San Xavier Indian Reservations, opacity of an emission from any non-point source, as measured in accordance with the Arizona Testing manual, Reference Method 9, shall not exceed the following:

[P.C.C. 17.16.050.B]

 - a. 20 percent for such non-point sources in Eastern Pima County, east of the eastern boundary of the Tohono O'Odham Reservations.
 - b. 40 percent for such non-point sources in all other areas of Pima County.

TABLE 4: EMISSIONS-DISCHARGE OPACITY LIMITING STANDARDS

Type of Source	Instantaneous Opacity Measurements			Maximum Allowable Average Opacity, %
	Required No. (For a Set)	Excluded No. (Highest Values)	No. to Use For Averaging	
Cold Diesel Engines ¹	25	0	25	60
Loaded Diesel Engines ²	26	1	25	60
Other Sources ³	25	0	25	20

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 Any source not otherwise specifically covered within this table.

C. Visibility Limiting Standard

[P.C.C. 17.16.050 and S.I.P. Rule 343]

1. The Permittee shall not cause, suffer, 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.
2. Opacity of an emission from any non-point source shall not be greater than 40 percent measured in accordance with the Arizona Testing Manual, Reference Method 9.
3. Open fires permitted according to Chapter 17.12 of the Pima County Regulations are exempt from the requirements of this Section.
4. The Permittee shall not cause, suffer, allow, or permit diffusion of visible emissions, including fugitive dust, beyond the property boundary line within which the emissions become airborne, without taking reasonably necessary and feasible precautions to control generation of airborne particulate matter. Sources may be required to cease temporarily the activity or operation which is causing or contributing to the emissions until reasonably necessary and feasible precautions are taken.
 - a. Sources required to obtain an air quality permit under ARS § 49-426, § 49-480 or Rule 17.12.470 of the Pima County Regulations may request to have the actions constituting reasonably necessary and feasible precautions approved and included as permit conditions.
 - b. Condition V.B. of Attachment “C” shall not apply when wind speeds exceed twenty-five (25) miles per hour (using the Beaufort Scale of Wind-Speed Equivalent, or as recorded by the National Weather Service). This exception does not apply if control measures have not been taken or were not

commensurate with the size or scope of the emission source.

5. Condition V.B of this Attachment shall not apply to the generation of airborne particulate matter from undisturbed land.

D. Permit Shield

Compliance with Condition V shall be deemed compliance with P.C.C. 17.16.010.C, P.C.C. 17.16.040, and P.C.C. 17.16.050.

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

DRAFT

**GENERAL AIR QUALITY CONTROL PERMIT
FOR
CONCRETE BATCH PLANTS
ATTACHMENT "D": ADDITIONAL REQUIREMENTS FOR SOURCES
OPERATING IN PINAL COUNTY**

I. APPLICABILITY OF MULTIPLE PERMIT CONDITIONS

[A.R.S. § 49-402(D)]

The Permittee of a facility operating in Pinal County shall comply with this attachment in addition to Attachments "A and B". 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.

II. FUGITIVE EMISSIONS REQUIREMENTS

Particulate Matter Emissions

A. Emission Limitations/Standards

[Pinal County Code 4-2-040]

1. 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.
2. 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.

B. Monitoring and Record Keeping Requirements

[Pinal County Code 4-2-050]

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.

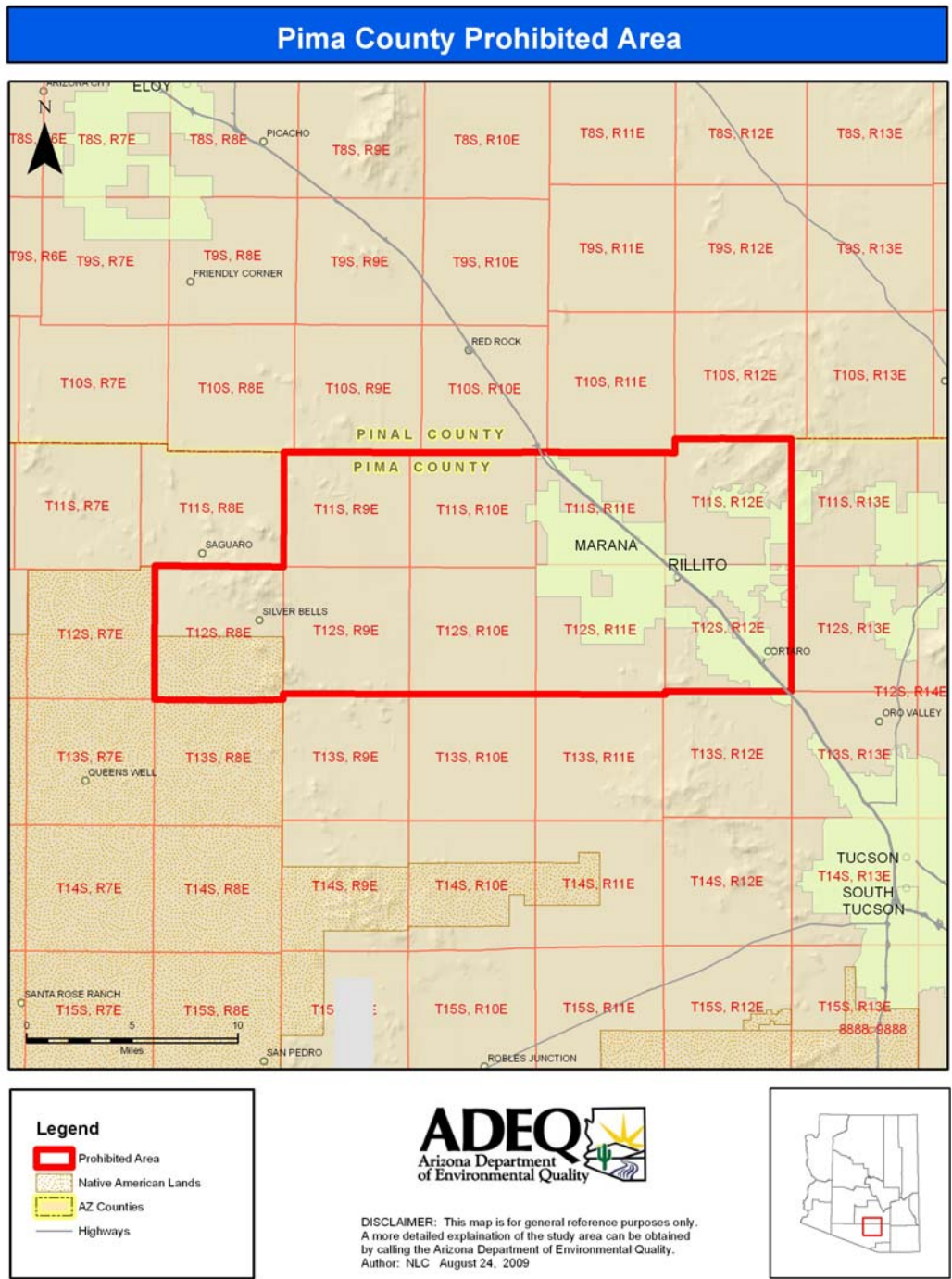
C. Permit Shield

[Pinal County Code 3-1-102]

Compliance with the conditions of this Part and the Conditions of Attachment "B" shall be deemed compliance with Pinal County Code 4-2-040 and 4-2-050.

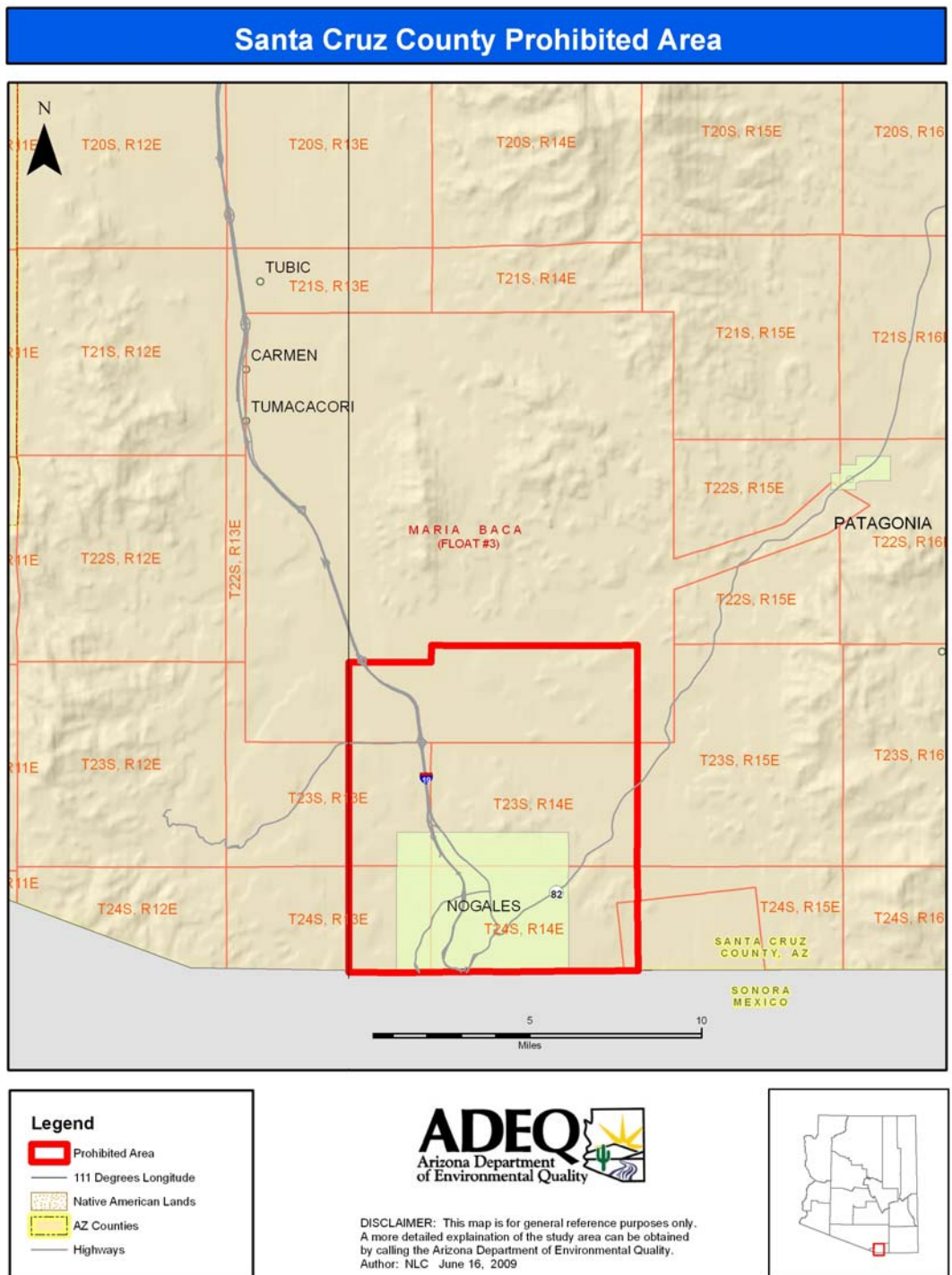
[A.A.C. R18-2-325]

**GENERAL AIR QUALITY CONTROL PERMIT
FOR
CONCRETE BATCH PLANTS
ATTACHMENT "E": MAP OF THE PROHIBITED PORTIONS OF PIMA COUNTY**



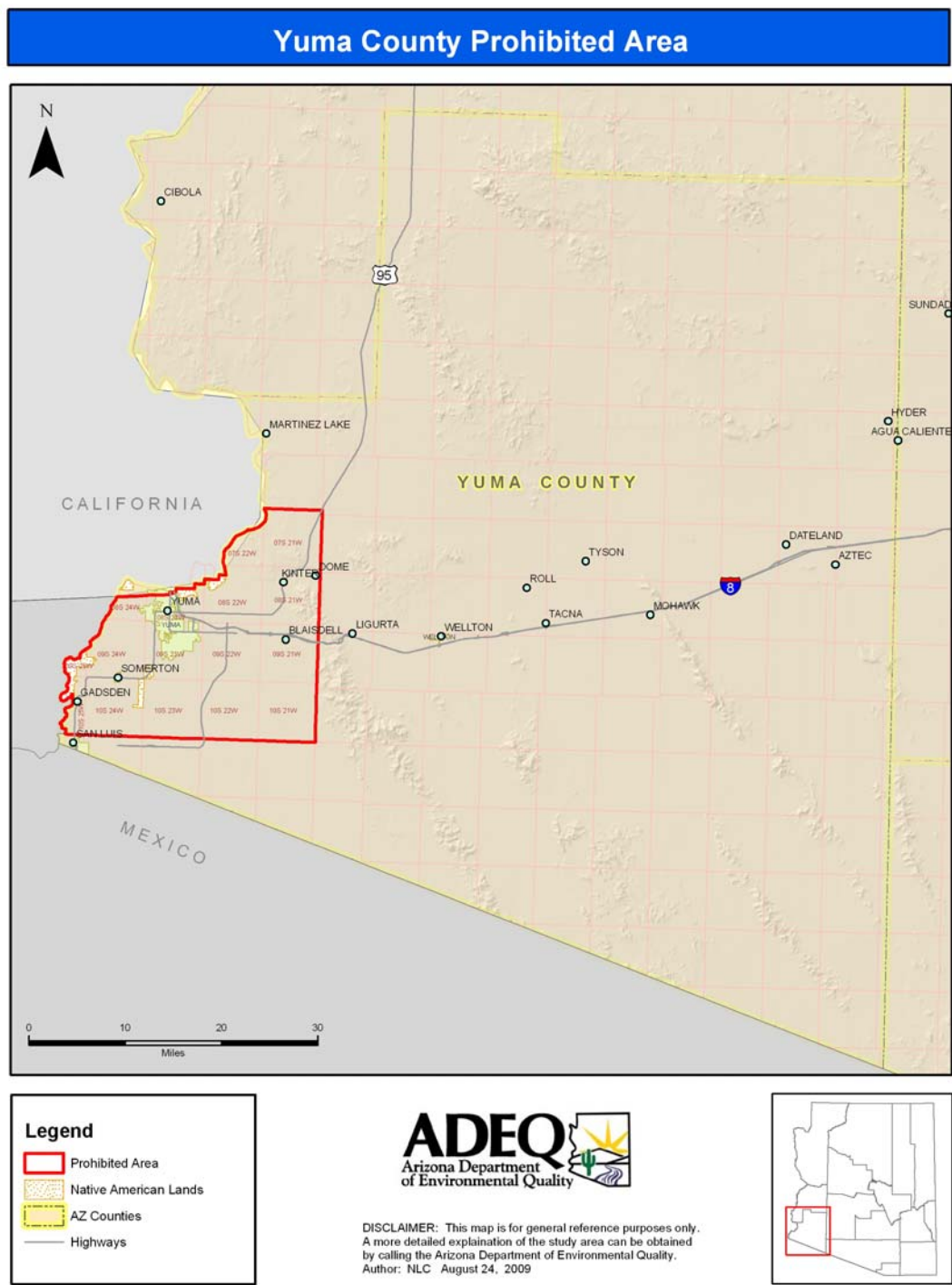
The red boxed area represents the portion of Pima County where concrete batch plant operations are prohibited. Operations in the following townships are prohibited: T11S-R9E, T11S-R10E, T11S-R11E, T11S-R12E, T12S-R8E, T12S-R9E, T12S-R10E, T12S-R11E and T12S-R12E.

**GENERAL AIR QUALITY CONTROL PERMIT
FOR
CONCRETE BATCH PLANTS
ATTACHMENT "F": MAP OF THE PROHIBITED PORTIONS OF SANTA CRUZ COUNTY**



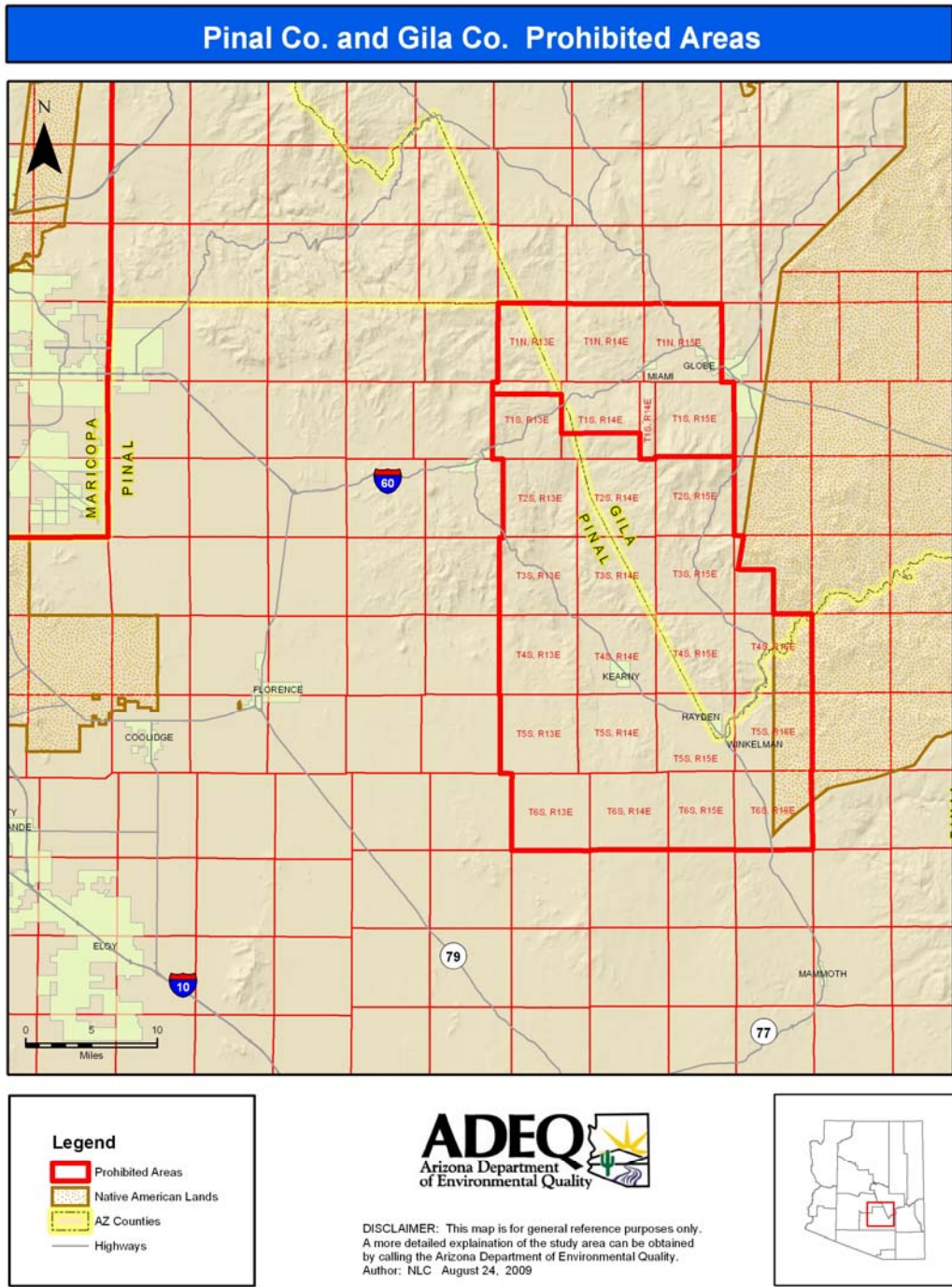
The red boxed area represents the portion of Santa Cruz County where concrete batch plant operations are prohibited. Operations in the following townships are prohibited: T23S-R13E, T23S-R14E, T24S-R13E and T24S-R14E.

**GENERAL AIR QUALITY CONTROL PERMIT FOR
CONCRETE BATCH PLANTS
ATTACHMENT "G": MAP OF THE PROHIBITED PORTIONS OF YUMA COUNTY**



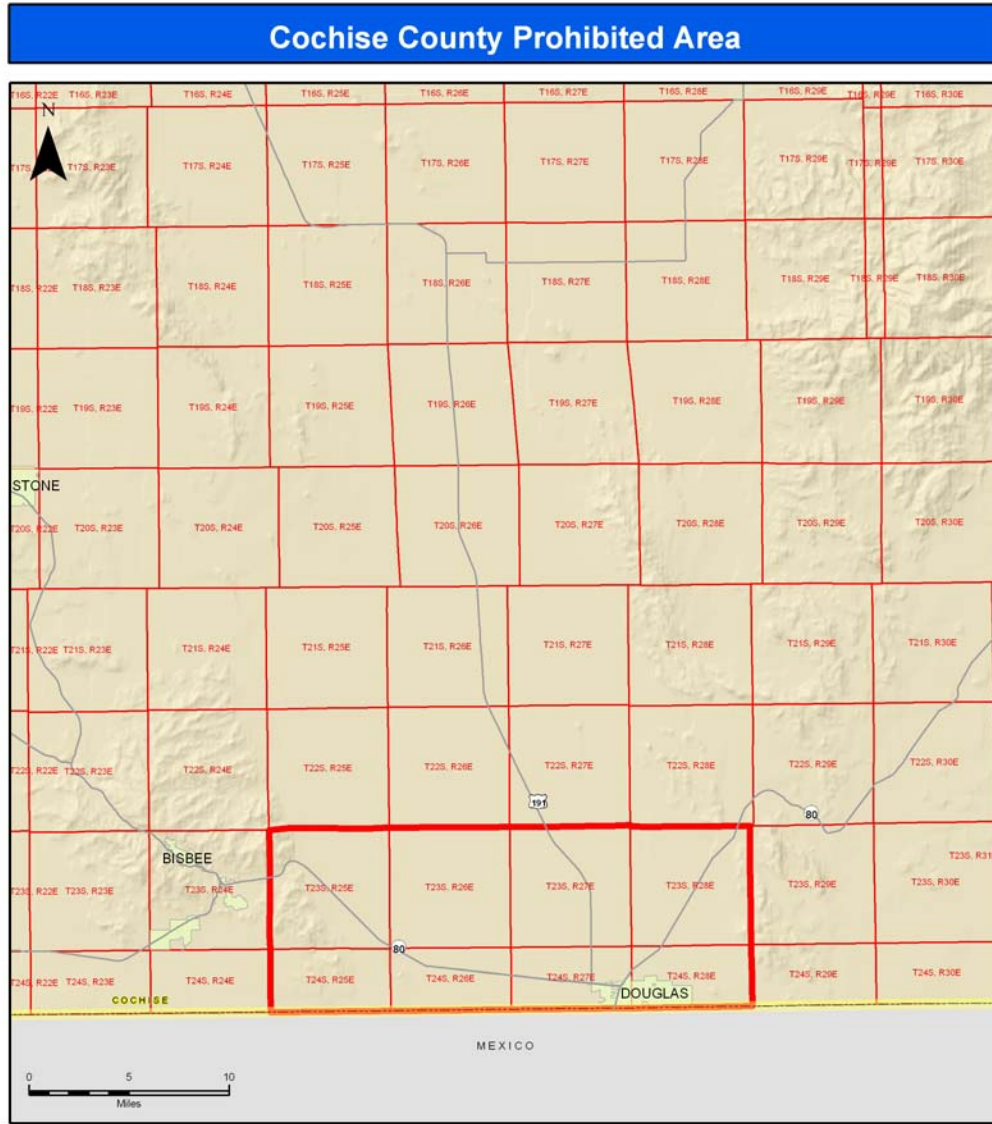
The red boxed area represents the portion of Yuma County where concrete batch plant operations are prohibited. Operations in the following townships are prohibited: T7S- R21W, R22W; T8S-R21W, R22W, R23W, R24W, T9S-R21W, R22W, R23W, R24W, R25W; T10S-R21W, R22W, R23W, R24W, and R25W.

**GENERAL AIR QUALITY CONTROL PERMIT
FOR
CONCRETE BATCH PLANTS
ATTACHMENT "H": MAP OF THE PROHIBITED PORTIONS
OF GILA COUNTY AND PINAL COUNTY**



The red boxed area represents the portion of Gila County and Pinal County where concrete batch plant operations are prohibited. Operations in the following townships are prohibited: T4S-R16E; T5S-R16E; T6S-R16E; T1N-R13E-T1N, R15E-T6S-R13E; T6S-R15E.

**GENERAL AIR QUALITY CONTROL PERMIT
FOR
CONCRETE BATCH PLANTS
ATTACHMENT "I": MAP OF THE PROHIBITED PORTIONS
OF COCHISE COUNTY**



DISCLAIMER: This map is for general reference purposes only. A more detailed explanation of the study area can be obtained by calling the Arizona Department of Environmental Quality. Author: NLC August 17, 2009



The red boxed area represents the portion of Cochise County where concrete batch plant operations are prohibited. Operations in the following townships are prohibited: The Douglas and Paul Spur areas: Township 23 South, Range 25 East (T23S, R25E): T23S-R26E, T23S-R27E, T23S-R28E, T24S-R25E, T24S-R26E, T24S-R27E, and T24S-R28E.