

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 "F"

ADEQ GENERAL PERMIT NUMBER 104 PERMIT CLASS II EXPIRATION DATE November 10, 2008

PERMIT ISSUED THIS _____ DAY OF _____, 2008

SIGNATURE

Nancy C. Wrona, Director, Air Quality Division

TITLE

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

TABLE OF CONTENTS

I.	INTRODUCTION	5
II.	APPLICATION FOR AUTHORIZATION TO OPERATE	6
III.	ATTACHMENT APPLICABILITY	6
	ATTACHMENT "A": GENERAL PROVISIONS	7
I.	GENERAL PERMIT EXPIRATION AND RENEWAL	7
II.	COMPLIANCE WITH PERMIT CONDITIONS.....	7
III.	GENERAL PERMIT REOPENINGS, REVOCATION AND REISSUANCE, OR TERMINATION FOR CAUSE	7
IV.	POSTING OF GENERAL PERMIT	8
V.	FEE PAYMENT	8
VI.	ANNUAL EMISSION INVENTORY QUESTIONNAIRE	9
VII.	COMPLIANCE CERTIFICATION	9
VIII.	CERTIFICATION OF TRUTH, ACCURACY AND COMPLETENESS.....	9
IX.	INSPECTION AND ENTRY	10
X.	PERMIT REVISION PURSUANT TO FEDERAL HAZARDOUS AIR POLLUTANT STANDARD	10
XI.	EXCESS EMISSIONS, PERMIT DEVIATIONS, AND EMERGENCY REPORTING	10
XII.	RECORD KEEPING REQUIREMENTS.....	15
XIII	REPORTING REQUIREMENTS	16
XIV	DUTY TO PROVIDE INFORMATION	16
XV.	FACILITY CHANGE ALLOWED WITHOUT OBTAINING AN A.T.O. OR INDIVIDUAL PERMIT	16
XVI.	TESTING REQUIREMENTS	18
XVII.	PROPERTY RIGHTS	19
XVIII.	SEVERABILITY CLAUSE	20
XIX.	TERMINATION OF THE GENERAL PERMIT AND REVOCATION OF AUTHORIZATION TO OPERATE UNDER THE GENERAL PERMIT	20
XX.	ACCIDENTAL RELEASE PROGRAM.....	20
	ATTACHMENT "B": CONCRETE BATCH PLANT REQUIREMENTS	21
I.	RELATIONSHIP OF PERMIT TO APPLICABLE STATE IMPLEMENTATION PLAN.....	21
II.	FACILITY WIDE LIMITATIONS	21
III.	CONCRETE BATCH FACILITY REQUIREMENTS	22
IV.	WASH PLANT REQUIREMENTS	24
V.	NON NSPS BOILERS	24
VI.	FUGITIVE DUST SOURCE REQUIREMENTS.....	26
VII.	CONDITIONS SPECIFIC TO MOBILE SOURCES	28
VIII.	CONDITIONS SPECIFIC TO PORTABLE SOURCES.....	29
	ATTACHMENT "C": GENERATOR REQUIREMENTS	31
I.	APPLICABILITY	31
II.	OPERATIONAL LIMITATIONS	31
III.	COMPRESSION IGNITION ENGINES SUBJECT TO NSPS	31
IV.	GENERATORS NOT SUBJECT TO NSPS	39
	ATTACHMENT "D": ADDITIONAL REQUIREMENTS FOR SOURCES OPERATING IN MARICOPA COUNTY	39
I.	APPLICABILITY OF MULTIPLE PERMIT CONDITIONS	39

II.	FACILITY WIDE LIMITATIONS	39
III.	CONCRETE BATCH PLANT REQUIREMENTS	39
IV.	FUGITIVE EMISSION REQUIREMENTS	39
V.	CONDITIONS SPECIFIC TO PORTABLE SOURCES.....	39
ATTACHMENT "E": ADDITIONAL REQUIREMENTS FOR SOURCES OPERATING		
	IN PIMA COUNTY	39
I.	APPLICABILITY OF MULTIPLE PERMIT CONDITIONS	39
II.	CRUSHING AND SCREENING PLANT REQUIREMENTS	39
III.	FUGITIVE EMISSIONS REQUIREMENTS.....	39
ATTACHMENT "F": ADDITIONAL REQUIREMENTS FOR SOURCES OPERATING		
	IN PINAL COUNTY	39
I.	APPLICABILITY OF MULTIPLE PERMIT CONDITIONS	39
II.	FUGITIVE EMISSIONS REQUIREMENTS.....	39

I. INTRODUCTION

- A. This document is a General Permit for *Concrete Batch Plants*, authorized under *Arizona Administrative Code (A.A.C.) R18-2-501 thru -511* and *Arizona Revised Statutes (A.R.S.) §49-426*. Owners/operators of existing and new concrete batch plants may choose to utilize this general permit in lieu of an individual permit. Such parties shall do so by obtaining an individual *Authorization to Operate (ATO)*, which will attest to their formal agreement to abide by all conditions contained herein.
- B. This General Permit covers stand-alone stationary and portable concrete batch plants that are subject to state or county regulations.
- C. References to the “Director” in this General Permit mean the Director of the Air Quality Division of the Arizona Department of Environmental Quality (ADEQ). References to the “Department” mean ADEQ. For sources required to obtain an ATO(s) from Maricopa, Pima or Pinal County, references in this document to the “Department” mean the Air Quality Control District (AQCD) and references to the “Director” mean the Control Officer of the AQCD except as otherwise indicated.
- D. This General Permit applies to sources operating in all counties of Arizona.

E. Jurisdiction

Maricopa, Pima and Pinal County AQCDs may administer, inspect, and enforce this General Permit and issue ATO(s) for sources under their jurisdiction. The agency which issues the ATO(s) has jurisdiction over these sources and is responsible for enforcing the conditions of this General Permit unless ADEQ asserts jurisdiction over these sources.

- F. Sources wishing to obtain coverage under this General Permit and associated ATO(s) shall apply to ADEQ. Sources that are located in Maricopa, Pima or Pinal County and who solely operate in these counties for an entire permit term shall obtain coverage under this General Permit from the respective AQCD.

G. Portable Sources

1. A portable source is any stationary source which is capable of being transported and operated in more than one county of Arizona.
2. According to A.R.S. §49-402 portable sources wishing to obtain coverage under this General Permit shall apply to the ADEQ. However, if the portable source will operate for the remaining term of this General Permit in Maricopa, Pima or Pinal County, then the respective AQCD will process the application for coverage under this General Permit.
3. Only under some unforeseen situation may a portable source which has received coverage under this General Permit from the Maricopa, Pima, or Pinal County AQCD be allowed to operate in any other county, unless one of the following occurs:
 - a. If a portable source is proposing to operate in a county without an AQCD, then the portable source shall apply to the ADEQ and obtain

coverage under this General Permit before beginning operation in that county; or

- b. If a portable source is proposing to operate for the remaining permit term in another county with an AQCD, then the portable source shall apply to the respective AQCD and obtain coverage under this General Permit before beginning operation in that county.

II. APPLICATION FOR AUTHORIZATION TO OPERATE

- A. Any source which is qualified to be covered by this General Permit may apply to the Department for authority to operate under this General Permit. Applicants shall submit the application forms and necessary information included in Appendix 1 of A.A.C. Title 18, Chapter 2. Applicants may complete additional forms available from the Department. The application must specifically state that coverage under this General Permit is requested.
- B. The applicant shall obtain an individual Authorization to Operate for each concrete batch plant (which includes connected conveyor systems and feed hoppers, enclosed augers and silos, weigh hoppers, and mixers), stand-alone silo (which includes attached baghouse and pneumatic or bucket loading system), and internal combustion engine (except those which are integrated into conveyors). The ATOs will attest to the parties' formal agreement to abide by all conditions contained herein. Other associated pieces of equipment do not require an individual ATO but are subject to the provisions of this General Permit when associated with concrete production activities.
- C. If the concrete batch plant owner is a rental company, the rental company shall serve as applicant and apply for coverage under this General Permit. Both the renter and lessee will be responsible for the operation of the equipment in compliance with the permit conditions.
- D. In order to be granted coverage under this General Permit, applicants must submit and agree to operate in accordance with an acceptable compliance plan.

III. ATTACHMENT APPLICABILITY

- A. The Permittee must adhere to Attachments "A", "B", and "C".
- B. If the facility is located in Maricopa County, the Permittee must **also** adhere to Attachment "D".
- C. If the facility is located in Pima County, the Permittee must **also** adhere to Attachment "E".
- D. If the facility is located in Pinal County, the Permittee must **also** adhere to Attachment "F".

**GENERAL AIR QUALITY CONTROL PERMIT
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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)(1)]

- 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 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 standard 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.
- 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.** 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.** All equipment covered by this General Permit shall be clearly marked with a serial number or other equipment number that is listed on the ATO for that piece of equipment.
- C.** A copy of the complete General Permit and associated 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. 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]

- 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 of each year. In addition, this certification shall include a description of any permit deviations.
- B. The compliance certifications shall include the following:
[A.A.C. R18-2-309(2)(a), -309(2)(c)-(d), and -309(5)(d)]
 - 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.B.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.
- C. 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. R18-2-309(3)]

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(1) 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 the deviation occurred.

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(I)(5)]

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

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)(a)]

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

1. The date, place as defined in the permit, and time of sampling or measurements;
2. The date(s) analyses were performed;
3. The name of the company or entity that performed the analyses;
4. A description of the analytical techniques or methods used;
5. The results of such analyses; and
6. The operating conditions 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)]

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”.

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. R18-2-317.02]

- 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.

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

ATTACHMENT "B": CONCRETE BATCH PLANT REQUIREMENTS

I. RELATIONSHIP OF PERMIT TO APPLICABLE STATE IMPLEMENTATION PLAN

[A.R.S. §49-404.C and -426]

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

II. FACILITY WIDE LIMITATIONS

A. Operational Limitations

[A.A.C. R18-2-306(A)(2), -306.01, -311 and -331(A)(3)(a)]
[Material permit conditions are indicated by underline and italics]

1. *The Permittee shall not operate the concrete batch plant such that the throughput exceeds 1,060 cubic yards per day while operating under generator power.*
2. *The Permittee shall not operate the concrete batch plant such that the throughput exceeds 1,175 cubic yards per day while operating under commercial electric power.*
3. *The Permittee shall not operate the equipment identified in the Authorization To Operate (ATO) for more than the number of hours allowed in the ATO.*
4. Within 90 days of General Permit coverage, the Permittee shall have on-site a person who is certified in EPA Reference Method 9.
5. The Permittee shall operate and maintain all equipment at the facility in accordance with manufacturer's specifications.
6. The Permittee shall not co-locate their concrete batch facility with a hot mix asphalt facility or a crushing and screening facility.

B. Record Keeping Requirements

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

1. If the Permittee has operating hours restrictions (less than 8760 hrs/yr) identified in ATOs, they shall maintain records of the operating hours of the equipment identified in ATOs associated with the concrete batch plant general permit on a twelve month rolling total. These records shall include the date, the starting time (in hours and minutes), the stopping time (in hours and minutes), and the type of fuel burned in each piece of equipment.
2. The Permittee shall maintain, on-site, records of the manufacturer's data for all concrete batch plant equipment utilized at the facility.
3. The Permittee shall maintain a log of the daily production of concrete (in cubic yards), including a notation if generator power (to any extent) was used.
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.

III. CONCRETE BATCH FACILITY REQUIREMENTS

A. Particulate Matter and Opacity Standards

1. The opacity of any plume or effluent shall not be greater than 20 percent as determined by EPA Reference Method 9 in 40 CFR Part 60, Appendix A-4. [A.A.C. R18-2-702.B]
2. Fugitive dust emissions from the concrete batch plant shall be controlled in accordance with Section VI of Attachment "B". [A.A.C. R18-2-723]

B. Air Pollution Controls

[A.A.C. R18-2-306(A)(2), -331(D) and (E)]
[Material permit conditions are indicated by underline and italics]

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 to ADEQ or the respective AQCD upon request.
 - b. Loading of cement / fly ash storage silos shall be conducted in such a manner that the displaced air does not by-pass the baghouse and is not direct-vented to the atmosphere.
2. Product Delivery System

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

C. Monitoring, Maintenance and Recordkeeping

1. Baghouses [A.A.C. R18-2-306(A)(3)(c) and -306(A)(4)]
 - a. The Permittee shall conduct an EPA Reference Method 9 observation of visible emissions from all process equipment by a certified EPA Reference Method 9 observer each quarter.
 - b. Upon completion of the EPA Reference Method 9 observation required by Condition III.C.1.a above, the Permittee shall record the name of the observer, date, time, location, and results of the observation. If the observation results in exceedance of the opacity limit of 20 percent, the Permittee shall take corrective action and log all such actions. Such exceedances shall be reported as excess emissions in accordance with Condition XI.A.1 of Attachment A.
 - c. 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.

- d. 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.
- e. Baghouses shall be maintained in accordance with the following:
 - 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 III.C.1.e.i through III.C.1.e.v above.

2. Product Delivery System [A.A.C. R18-2-306(A)(2) and -306(A)(c)]

A rubber sleeve, or equivalent, shall be used (or 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 to ADEQ or the respective AQCD upon request.

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 III.C.3.a and III.C.3.b above. [A.A.C. R18-2-306(A)(4)]

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

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

IV. WASH PLANT REQUIREMENTS [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]

- A. *The Permittee shall maintain and operate spray bars, at all times, including during periods of startup, shutdown, and malfunction, to control visible emissions from crushing, 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.*
- B. 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.

V. NON NSPS BOILERS

A. Applicability

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

B. Fuel Limitation

The Permittee shall burn only natural gas, liquefied petroleum gas (Butane or Propane), or low sulfur diesel fuel in the boiler(s), as identified on the ATO(s). [A.A.C. R18-2-306.A.2]

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 to demonstrate compliance with the PM limit specified in Condition V.C.1 above. 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.

3. Permit Shield

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

D. Opacity Standards

1. Emission Limitations and Standards [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(s). 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 observer, name of observer, date & time of observation, and the results of the observation. 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.

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

3. Permit Shield

Compliance with this Condition V.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]

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 compliance with the sulfur content limit specified in the Condition V.E.1. above. The certification shall contain the information with regard to sulfur content and the method used to determine the sulfur content of fuel. These records shall be made available to the ADEQ inspector upon request.

3. Permit Shield

Compliance with this Condition V.E shall be deemed compliance with A.A.C.R18-2-724.E and G. [A.A.C. R18-2-325]

VI. FUGITIVE DUST SOURCE REQUIREMENTS

A. Applicability

This section applies to any source of air contaminants which, due to lack of an identifiable emissions point or plume, cannot be considered a point source.

B. Emission Limitations and Standards [A.A.C. R18-2-612]

The Permittee shall not cause or allow to be discharged into the atmosphere any plume from a non-point source which exhibits an opacity greater than 40%, as measured in accordance with EPA Reference Method 9.

C. Operational Limitations

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

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

- a. The Permittee shall not cause, suffer, allow, or permit a building or its appurtenances, or a building or subdivision site, or a driveway, or a parking area, or a vacant lot or sales lot, or an urban or suburban open area to be constructed, used, altered, repaired, demolished, cleared, or leveled, or the earth to be moved or excavated, without taking reasonable precautions to limit excessive amounts of particulate matter from becoming airborne. Dust and other types of air contaminants shall be kept to a minimum by good modern practices such as using an approved dust suppressant or adhesive soil stabilizer, paving, covering, landscaping, continuous wetting, detouring, barring access, or other acceptable means. [A.A.C. R18-2-604(A)]

- b. The Permittee shall not cause, suffer, allow, or permit a vacant lot, or an urban or suburban open area, to be driven over or used by motor vehicles, trucks, cars,

cycles, bikes, or buggies, or by animals such as horses, without taking reasonable precautions to limit excessive amounts of particulates from becoming airborne. Dust shall be kept to a minimum by using an approved dust suppressant, or adhesive soil stabilizer, or by paving, or by barring access to the property, or by other acceptable means. [A.A.C. R18-2-604(B)]

c. The Permittee shall not cause, suffer, allow or permit the use, repair, construction or reconstruction of a roadway or alley without taking reasonable precautions to prevent excessive amounts of particulate matter from becoming airborne. Dust and other particulates shall be kept to a minimum by employing temporary paving, dust suppressants, wetting down, detouring or by other reasonable means. [A.A.C. R18-2-605(A)]

d. The Permittee shall not cause, suffer, allow or permit transportation of materials likely to give rise to airborne dust without taking reasonable precautions, such as wetting, applying dust suppressants, or covering the load, to prevent particulate matter from becoming airborne. Earth or other material that is deposited by trucking or earth moving equipment shall be removed from paved streets by the person responsible for such deposits. [A.A.C. R18-2-605(B)]

e. The Permittee shall not cause, suffer, allow or permit crushing, screening, handling, transporting or conveying of materials or other operations likely to result in significant amounts of airborne dust without taking reasonable precautions, such as the use of spray bars, wetting agents, dust suppressants, covering the load, and hoods to prevent excessive amounts of particulate matter from becoming airborne. [A.A.C. R18-2-606]

f. The Permittee shall not cause, suffer, allow, or permit organic or inorganic dust producing material to be stacked, piled, or otherwise stored without taking reasonable precautions such as chemical stabilization, wetting, or covering to prevent excessive amounts of particulate matter from becoming airborne. [A.A.C. R18-2-607(A)]

g. Stacking and reclaiming machinery utilized at storage piles shall be operated at all times with a minimum fall of material and in such manner, or with the use of spray bars and wetting agents, as to prevent excessive amounts of particulate matter from becoming airborne. [A.A.C. R18-2-607(B)]

h. Any other method as proposed by the Permittee and approved by the Director.

2. Open Burning [A.A.C. R18-2-602]

Except as provided in A.A.C. R18-2-602(C)(1), -602(C)(3), and -602(C)(4), and except when permitted to do so by either ADEQ or the local officer delegated the authority for issuance of open burning permits, the Permittee shall not conduct open burning.

D. Pollution Control Requirements [A.A.C. R18-2-331(A)(3)(e), -604(A), -604(B), -605, -606 and -607]
[Material permit conditions are indicated by underline and italics]

The Permittee shall operate and maintain the following air pollution controls:

Water or an equivalent control shall be used to control visible emissions from haul roads and storage piles, or haul roads and storage piles shall be adequately wet to minimize visible emissions to the extent practical.

E. Monitoring/Record Keeping/Reporting Requirements

1. The Permittee shall maintain records of the dates on which any of the activities listed in Conditions VI.C.1.a through VI.C.1.h above were performed and the control measures that were adopted. [A.A.C. R18-2-306(A)(3)(c) and -306(A)(4)]

2. Opacity Monitoring Requirements [A.A.C. R18-2-306(A)(3) and -306(A)(4)]
 - a. A certified EPA Reference Method 9 observer shall conduct a quarterly visual survey of visible emissions from the non-point sources. The Permittee shall keep a record of the area/location surveyed, name of the observer, the date on which the survey was made, and the results of the survey.
 - b. If the observer sees a plume from a non-point source that on an instantaneous basis appears to exceed 40%, then the observer shall, if practicable, take a six-minute Method 9 observation of the plume.
 - c. If the six-minute opacity of the plume is less than 40%, the observer shall make a record of the following:
 - i. Location, date, and time of the observation; and
 - ii. The results of the Method 9 observation.
 - d. If the six-minute opacity of the plume exceeds 40%, then the Permittee shall do the following:
 - i. Adjust or repair the controls or equipment to reduce opacity to below 40%;
 - ii. Report it as an excess emission under Section XII.A of Attachment "A"; and
 - iii. Keep records of the corrective action taken.

3. Open Burning [A.A.C. R18-2-306(A)(4) and -602]

Compliance with the monitoring requirements for Condition V.C.2 above may be demonstrated by maintaining copies of all open burning permits on file.

F. Permit Shield

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

Compliance with the conditions of Section VI of this Attachment shall be deemed compliance with the following applicable requirements: A.A.C. R18-2-604(A), A.A.C. R18-2-604(B), A.A.C. R18-2-605, A.A.C. R18-2-606, A.A.C. R18-2-607, A.A.C. R18-2-602 and A.A.C. R18-2-612.

VII. CONDITIONS SPECIFIC TO MOBILE SOURCES

A. Applicability

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

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 are agricultural equipment used in normal farm operations. Mobile sources shall not include portable sources as defined in A.A.C.

B. Particulate Matter and Opacity

1. Emission Limitations/Standards

- a. The Permittee shall not cause, allow, or permit to be emitted into the atmosphere from any off-road machinery, smoke or 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, locomotives and other construction and mining machinery not normally driven on a completed public roadway. [A.A.C. R18-2-802]
- b. 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)]
- c. The Permittee shall not cause, allow or permit the cleaning of any site, roadway, or alley without taking reasonable precautions to prevent particulate matter from becoming airborne. Reasonable precautions may include applying dust suppressants. 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. Permit Shield

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

Compliance with the terms of Section VII of this Attachment shall be deemed compliance with the following applicable requirements: A.A.C. R18-2-801, A.A.C. R18-2-802, and A.A.C. R18-2-804.

VIII. 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 (I.D.) 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 -306(A)(4)]

A portable source may be transferred from one location to another provided that the owner or operator of such equipment notifies the Director of the transfer by certified mail at least ten (10) working days before the transfer. The move notice notification shall include the following:

1. A description of **all** permitted equipment (under the same owner or operator) which is going to be present at the site including the permit number, the manufacturer, the model number, including 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; and
6. A description of the equipment that will be transferred to the new location, including the ATO number(s) for such equipment.

C. Dust Control Plan Submission

[Maricopa County Rule 310]

1. A Dust Control Plan shall be submitted to the Department along with each move notice that notifies the Department of movement into or within Maricopa County. The Dust Control Plan shall describe all control measures to be implemented to control dust-generating operations.
2. The Dust Control Plan shall include, at a minimum, the information required by Condition IV.B.4 of Attachment "D".
3. Unless the Permittee receives an official determination from the Department stating the contrary, all Dust Control Plans shall be deemed approved by default ten days after submission.

D. 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 ATO's 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 ATO's 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.

E. Portable Source 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 or appropriate county jurisdiction.

**GENERAL AIR QUALITY CONTROL PERMIT
FOR
CONCRETE BATCH PLANTS
ATTACHMENT "C": GENERATOR REQUIREMENTS**

I. APPLICABILITY

[R18-2-719(A) and 40 CFR §89.2]

- A.** 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 do 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.
- B.** 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.

II. OPERATIONAL LIMITATIONS

A. Maximum Capacity Requirement

[A.A.C. R18-2-306.01, -306(A)(4) and -331(A)(3)(a)]
[Material permit conditions are indicated by underline and italics]

1. *The combined capacity of all generators at the concrete batch plant, including all generators and internal combustion engines, shall not exceed 735 horsepower or the total maximum generator capacity identified in the ATO(s), whichever is less.*
2. Record Keeping Requirement

The Permittee shall maintain daily records of the total hours of operation of each internal combustion engine (except for mobile equipment, such as trucks and front-end loaders).

B. Fuel Limitations

1. Permitted Fuel Requirement [A.A.C. R18-2-306(A)(2), -306.01]

The Permittee shall **only** burn the fuels allowed by the ATO(s) in the generator engine(s).
2. 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 III.B.1.e for generators marked as subject to NSPS on the associated ATO or Condition IV.C.1.b for generators marked as not subject to NSPS on the associated ATO.

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

III. COMPRESSION IGNITION ENGINES SUBJECT TO NSPS

A. Applicability

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

B. General Requirements

1. Operating Requirements

- a. 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 onsite and made available to ADEQ upon request.
[40 CFR 60.4211(a) and A.A.C. R18-2-306.A.3]
- b. The Permittee shall only change those engine settings that are permitted by the manufacturer.
[40 CFR 60.4211(a)]
- c. The Permittee shall meet the requirements of 40 CFR parts 89, 94, or 1068, as they apply.
[40 CFR 60.4211(a)]
- d. 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]
- e. Fuel Requirements
 - i. After October 1, 2007, an engine that uses diesel fuel, shall use diesel fuel that meets the following requirements of 40 CFR 80.510(a):
 - a). Sulfur content: 500 parts per million (ppm) maximum; and
 - b). A minimum cetane index of 40 or a maximum aromatic content of 35 volume percent.
[40 CFR 60.4207(a)]
 - ii. 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):
 - a). Sulfur content: 15 ppm maximum; and
 - b). A minimum cetane index of 40 or a maximum aromatic content of 35 volume percent.
[40 CFR 60.4207(b)]
- f. 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]
 - i. *The Permittee shall install a non-resettable hour meter prior to startup of the engine.*
 - ii. 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.
 - iii. 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.

- iv. 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.
- v. 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.
- vi. 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.

2. Emission Limitations and Standards

a. 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)]

- i. 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)]

- ii. 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)]

b. 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)]

- i. 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)]
 - a). For engines with a maximum engine power less than 50 horsepower:
 - (i). 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
 - (ii). 2008 model year and later engines shall meet the emission standards for new nonroad compression ignition engines in 40 CFR 1039.104, 40 CFR 1039.105, 40 CFR 1039.107, 40 CFR 1039.115, and Table 2 to 40 CFR part 60, subpart III. [40 CFR 60.4202(a)(1)]
 - b). 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)]
- ii. 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)]

3. 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 is greater than 3,000 horsepower, or 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:

- a. 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:
 - i. Name and address of the owner or operator;
 - 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.
- b. Keep records of the following information:
 - i. All notifications submitted to comply with this Section and all documentation supporting any notification;
 - ii. Maintenance conducted on the engine;
 - iii. If the internal combustion engine is a certified engine, documentation from the manufacturer that the engine is certified to meet the emission standards; or
 - iv. If the internal combustion engine is not a certified engine, documentation that the engine meets the emission standards.

4. Monitoring and Record Keeping Requirements

- a. The Permittee of a 2007 model year and later internal combustion engine that is required to comply with the emission standards specified in Conditions III.B.2.a or III.B.2.b, shall comply by purchasing an engine certified to the emission standards in Condition III.B.2, as applicable, for the same model year and maximum engine power. The engine shall be installed and configured according to the manufacturer's specifications. [40 CFR 4211(c)]
- b. 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 III.C.1.b, III.D.1.b, and III.E.1.b, shall comply by purchasing an engine certified to the emission standards in Conditions III.C.1.b, III.D.1.b, and III.E.1.b, 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<750	2009

[40 CFR 4211(c)]

- c. 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 III.C.1.a, III.D.1.a, III.D.1.c, III.E.1.a, and III.F.1, shall demonstrate compliance according to one of the methods specified below:
 - i. 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.
 - ii. 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.

- 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.
- v. 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)]

- d. A fire pump engine that is manufactured prior to the model years specified in Condition III.B.4.b and is required to comply with the emissions standards specified in Conditions III.C.1.b, III.D.1.b, and III.E.1.b, shall demonstrate compliance according to one of the methods specified in Condition III.B.4.c.i through III.B.4.c.v.

[40 CFR 60.4211(b)]

- e. An internal combustion engine that is required to comply with the emission standards specified in Conditions III.C.1.c or III.D.1.c shall demonstrate compliance according to the requirements specified below:

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

- f. 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]

5. Testing Requirements

[40 CFR 60.4212 and 60.4213]

- a. 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.
- b. 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.

6. Permit Shield

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

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).

C. Particulate Matter

1. Emissions Limitations and Standards

- a. 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)]

- b. 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
	2010 and later	0.15
300≤EP<600	2008 and earlier	0.40
	2009 and later	0.15
600≤EP<750	2008 and earlier	0.40
	2009 and later	0.15

[40 CFR 60. 4205(c)]

- i. 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 III]
- ii. 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 III]
- c. Engines with a displacement of greater than 30 liters per cylinder shall meet the following emission standards:

- i. Reduce PM emissions by 60% or more; or
 - ii. 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)]

2. Air Pollution Control Requirements

If a non-emergency engine is equipped with a diesel particulate filter to comply with the emission standards in Condition III.C.1, 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]

3. Monitoring and Record Keeping Requirements

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

[40 CFR 60.4209(b) and A.A.C. R18-2-331.a.3.c]
[Material permit conditions are indicated by underline and italics]

b. 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.

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

c. 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)]

d. If the Permittee elects to meet the emission limitations contained in Condition III.C.1.b.i or ii, 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]

4. Permit Shield

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

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).

D. Nitrogen Oxides

1. Emissions Limitations and Standards

a. 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)]

- b. 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
	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
	2010 and later	3.0
300≤EP <600	2008 and earlier	7.8
	2009 and later	3.0
600≤EP <750	2008 and earlier	7.8
	2009 and later	3.0

* indicates NMHC+NO_x

[40 CFR 60.4205(c)]

- i. 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 III]
- ii. 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 III]
- c. 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)]

- i. 17.0 g/kW-hr when the maximum test speed is less than 130 rpm.

- ii. $45.0 \times N^{-0.20}$ 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.
 - iii. 9.8 g/kW-hr when the maximum test speed is 2000 rpm or more.
 - iv. All speed-dependent standards in this Part shall be rounded to the nearest 0.1 g/kW-hr
- d. Internal combustion engines with a displacement of greater than 30 liters per cylinder shall meet the following emission standards:
- i. Reduce NO_x emissions by 90% or more; or
 - ii. 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)]
- e. If the Permittee elects to meet the emission limitations contained in Condition III.D.1.b.i or ii, 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]
2. Permit Shield [A.A.C. R18-2-325]

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).

E. Carbon Monoxide

1. Emissions Limitations and Standards
- a. Pre-2007 model year internal combustion engines with 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	6.0
11≤EP<25	4.9
25≤EP<50	4.1
50≤EP<175	N/A
EP≥175	8.5

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

- b. 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	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
	2010 and later	N/A
300≤EP<600	2008 and earlier	2.6
	2009 and later	N/A
600≤EP<750	2008 and earlier	2.6
	2009 and later	N/A

[40 CFR 60.4205(c)]

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

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

F. Hydrocarbon

1. 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)]

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

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

IV. GENERATORS NOT SUBJECT TO NSPS

A. Applicability

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

B. Particulate Matter and Opacity

1. Emission Limitations and Standards [A.A.C. R18-2-719.B, -719.C.1, and -719.E]
[Material permit conditions are indicated by underline and italics]

- a. 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:

$$E = 1.02 Q^{0.769} \text{ where:}$$

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

hour

Q = the heat input in million Btu per hour

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

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

i. 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.

ii. Visible emissions when starting cold equipment shall be exempt from this requirement for the first 10 minutes.

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

a. The Permittee shall have a certified EPA Reference Method 9 observer conduct a monthly survey of visible emissions emanating from the stack of the generator(s). If the opacity of the emissions observed appears to exceed the standard, the observer shall conduct a certified Method 9 observation. The Permittee shall keep records of the initial survey and any 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. If the observation shows a Method 9 opacity reading in excess of 40%, the Permittee shall report this to ADEQ as an excess emission and initiate appropriate corrective action to reduce the opacity below 40%. The Permittee shall keep a record of the corrective action performed. [A.A.C. R18-2-306.A.3.c.]

b. 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

3. Testing Requirement

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

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

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

C. Sulfur Dioxide

1. Emission Limitations and Standards

a. The Permittee shall not emit or cause to emit more than 1.0 pound of sulfur dioxide per million Btu heat input. [A.A.C. R18-2-719.F]

b. 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]

2. Monitoring, Recordkeeping, and Reporting

- a. 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 this Condition IV.C.1.b. 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]

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

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

3. Permit Shield

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

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.

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

I. APPLICABILITY OF MULTIPLE PERMIT CONDITIONS

[A.R.S. § 49-402(D)]

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. FACILITY WIDE LIMITATIONS

A. Hourly Limitation

The Permittee shall not operate the equipment identified in the Authorization To Operate (ATO) for more than the number of hours allowed in the ATO.

[Maricopa County Rule 241 §301.1 and 100 §200.63(a)(3)(a)]
[Material permit conditions are indicated by underline and italics]

B. Opacity Limitations

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

[Maricopa County Rule 300 §301][State and Locally enforceable only]

C. Operating Limitations

1. Gaseous and Odorous Emissions

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

[Maricopa County Rule 320 §300]

2. Material Containment Required

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

[Maricopa County Rule 320 §302]

3. Stack Requirements

Where a stack, vent or other outlet is at such a level that air contaminants are discharged to adjoining property, the Control Officer and Director may require the installation of abatement equipment or the alteration of such stack, vent or other outlet to a degree that

will adequately dilute, reduce or eliminate the discharge of air contaminants to adjoining property. [Maricopa County Rule 320 §303]

D. Air Pollution Control Requirements

Operations and Maintenance (O&M) Plan

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

1. The Permittee shall provide and maintain, readily available on-site at all times, (an) O&M plan(s) for any ECS, any other emission processing equipment, and any ECS monitoring devices that are used pursuant to these conditions.
[Maricopa County Rule 316 §305.1.a][State and Locally enforceable only]
2. The Permittee shall submit to the Control Officer and Director for approval the O&M Plan(s) for each ECS and ECS monitoring device that is used pursuant to these conditions.
[Maricopa County Rule 316 §305.1.b][State and Locally enforceable only]
3. The Permittee shall comply with all identified actions and schedules provided in each O&M Plan.
[Maricopa County Rule 316 §305.1.c][State and Locally enforceable only]
4. *The Permittee shall install, maintain and calibrate monitoring devices described in the O&M Plan. The monitoring devices shall measure pressures, rates of flow, or other operating conditions necessary to determine if the control devices are functioning properly.*
[Maricopa County Rule 316 §305.2 and 100 §200.63(a)(3)(c)][State and Locally enforceable only]
[Material permit conditions are indicated by underline and italics]
5. The Permittee must fully comply with all O&M Plans that the Permittee has submitted for approval, even if such O&M Plans have not yet been approved, unless notified in writing by the Control Officer and Director.
[Maricopa County Rule 316 §305.3][State and Locally enforceable only]

E. Monitoring/Recordkeeping/Reporting Requirements

1. Opacity Requirements
 - a. The Permittee shall weekly conduct a facility walk-through and observe visible emissions from all equipment capable of emitting visible emissions. The Permittee shall log the visual observations, including the date and time when the reading was taken, results of the reading, name of the person who took the reading and any other related information.
[Maricopa County Rule 210 §302.1.c][State and Locally enforceable only]
 - b. Opacity shall be determined by observation of visible emissions conducted in accordance with 40 CFR Part 60 Appendix A, Method 9, except opacity of visible emissions from intermittent sources as defined by County Rule 300 §201. Opacity of visible emissions from intermittent sources shall be determined by observations conducted in accordance with 40 CFR Part 60 Appendix A, Method 9, except that at least 12 rather than 24 consecutive readings shall be required at 15-second intervals for the averaging time.

2. Odor Log

The Permittee shall maintain a log of complaints of odors detected off-site. The log shall contain a description of the complaint, date and time that the complaint was received, and if given, name and phone number of the complainant. The logbook shall describe what actions were performed to investigate the complaint, the results of the investigation, and any corrective actions that were taken.

[Maricopa County Rule 210 §302.1.c(2)]

3. Operations and Maintenance Plan Record Keeping Requirements

[Maricopa County Rule 316 §§501.2 and 501.3]

The Permittee shall keep accurate records of the parameters specified by the approved O&M Plan. These records shall include:

- a. Dates of inspection;
- b. Dates of service or maintenance;
- c. Records of maintenance or corrective actions performed;
- d. Dates, times and causes of all control device failures and downtime.
- e. Key system parameters necessary to determine if the control equipment is functioning properly shall be recorded in accordance with the approved O&M Plan;
- f. An account for all periods when the control system was not in operation; and
- g. Results of visual inspections and any corrective action taken, if necessary.

4. For all days that the plant is actively operating, the Permittee shall keep accurate daily records of the following, when applicable:

[Maricopa County Rule 316 §501.2.a]

- a. Hours of operation;
- b. Throughput of raw materials processed in the plant in tons/day;
- c. Volume of asphaltic concrete produced in cubic yards per day;
- d. Composition of a cubic yard of asphaltic concrete produced (percent cement, sand, aggregate, gypsum, admixture, water, fly ash, etc.);
- e. Amount of each raw material delivered to the plant in tons/day; and
- f. Fly ash delivered in tons/day.

5. The Permittee shall keep all operational information required by Conditions II.E.3 and II.E.4 in a complete and consistent manner on site and shall be made available without delay to the Control Officer and Director upon request.

[Maricopa County Rule 316 §501.1]

6. Testing Requirements

The following test methods shall be used as appropriate:

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

[Maricopa County Rule 316 §502.1]

- b. Opacity Determination: Opacity observations to measure the opacity of visible emissions shall be conducted in accordance with the techniques specified in EPA Reference Method 9, 40 CFR Part 60, Appendix A, except the opacity observations for intermittent visible emissions shall require 12 (rather than 24) consecutive readings at 15-second intervals.

[Maricopa County Rule 316 §502.2]

F. Permit Shield

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

[Maricopa County Rule 230 §309]

III. CONCRETE BATCH PLANT REQUIREMENTS

Particulate Matter and Opacity

A. Emission Limitations/Standards

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

1. Stack emissions exceeding 7% opacity

[Maricopa County Rule 316 §303.1]

2. Fugitive dust emissions exceeding 10% opacity from any affected operation or process source, excluding truck dumping directly into any screening operation, feed hopper or crusher.

[Maricopa County Rule 316 §303.2]

3. Fugitive dust emissions exceeding 20% opacity from truck dumping directly into any screening operation, feed hopper or crusher.

[Maricopa County Rule 316 §303.3]

B. Record Keeping Requirement

1. For dry mix concrete plants, the Permittee shall maintain records of the following:

[Maricopa County Rule 316 §501.2.b]

- a. Number of bags of dry mix produced per day;

- b. Weight (size) of bags of dry mix produced per day;
 - c. Kind and amount of fuel consumed in the dryer in cubic feet per day or gallons per day; and
 - d. Kind and amount of any back-up fuel in cubic feet per day or gallons per day.
2. The Permittee shall maintain a record of the periods of time that an approved ECS is used to comply with Conditions III.A.1 through III.A.3 above.

[Maricopa County Rule 316 §501.3]

C. Permit Shield

Compliance with the conditions of this Section shall be deemed compliance with Maricopa County Rule 316 §303.1, Maricopa County Rule 316 §303.2, Maricopa County Rule 316 §303.3, Maricopa County Rule 316 §501.3 and Maricopa County Rule 316 §501.2.b

[Maricopa County Rule 230 §309]

IV. FUGITIVE EMISSION REQUIREMENTS

A. Particulate Matter and Opacity

1. Emission Limitations/Standards
- a. The Permittee shall not allow visible fugitive dust emissions to exceed 20% opacity. Exceedances of the opacity limit that occur due to a wind event shall constitute a violation of the opacity limit. However, it shall be an affirmative defense in an enforcement action if the Permittee demonstrates all of the following conditions:

[Maricopa County Rule 310 §301.1 and Table 2]

- i) All control measures required were followed and one or more of the control measures listed below were applied and maintained.
 - (a) Cease dust-generating operations for the duration of the condition/situation/event when the 60-minute average wind speed is greater than 25 miles per hour. If dust generating operations are ceased for the remainder of the work day, stabilization measures must be implemented;
 - (b) Apply water or other suitable dust suppressant twice per hour; or
 - (c) Apply water as necessary to maintain a soil moisture content at a minimum of 12% as determined by ASTM Method D2216-98 or other equivalent as approved by the Control Officer, Director and the Administrator of the Environmental Protection Agency (EPA). For areas which have an optimum moisture content for compaction of less than 12% as determined by ASTM Method D1557-91 (1998) or other equivalent as approved by the Control Officer, Director and the Administrator of the EPA, maintain at least 70% of the optimum soil moisture content.

- ii) The 20% opacity exceedance could not have been prevented by better

application, implementation, operation, or maintenance of control measures.

- iii) The Permittee compiled and retained records, in accordance with the recordkeeping requirements of this permit.
- iv) The occurrence of a wind event on the day(s) in question is documented by records. The occurrence of a wind event must be determined by the nearest Maricopa County Environmental Services Department Air Quality Division monitoring station, from any other certified meteorological station, or by a wind instrument that is calibrated according to manufacturer's standards and that is located at the site being checked.

b. Stabilization Requirements for Fugitive Dust Sources

i) Unpaved Parking Lot

[Maricopa County Rule 310 §302.1]

- (a) The Permittee shall not allow visible fugitive dust emissions from any unpaved parking lot to exceed 20% opacity and either:
 - (b) Shall not allow silt loading equal to or greater than 0.33 ounce per square foot; or
 - (c) Shall not allow the silt content to exceed 8%.

ii) Unpaved Haul/Access Road

- (a) The Permittee shall not allow visible dust emissions from unpaved Haul/Access Roads to exceed 20% opacity and either:
 - i. Shall not allow silt loading equal to or greater than 0.33 ounce per square foot; or
 - ii. Shall not allow the silt content to exceed 6%.

[Maricopa County Rule 310 §302.2.a]

- (b) The Permittee shall, as an alternative to meeting the stabilization requirements for an unpaved haul/access road, limit vehicle trips to no more than 20 per day and limit vehicle speeds to no more than 15 miles per hour. The Permittee must include, in the Dust Control Plan, the number of vehicles traveled on the unpaved haul/access road (i.e. number of employee vehicles, earthmoving equipment, haul trucks and water trucks)

[Maricopa County Rule 310 §302.2.b]

iii) Open Area and Vacant Lot or Disturbed Surface Area
[Maricopa County Rule 310 §302.3]

The Permittee shall meet at least one of the standards described in Conditions IV.A.1.b(3)(a) through IV.A.1.b(3)(g) below for an open area and vacant lot or any disturbed surface area on which no activity is occurring:

- (a) Maintain a visible crust;
 - (b) Maintain a threshold friction velocity (TFV) for disturbed surface areas corrected for non-erodible elements of 100 cm/second or higher;
 - (c) Maintain a flat vegetative cover (i.e., attached (rooted) vegetation or unattached vegetative debris lying on the surface with a predominant horizontal orientation that is not subject to movement by wind) that is equal to at least 50%;
 - (d) Maintain a standing vegetative cover (i.e., vegetation that is attached (rooted) with a predominant vertical orientation) that is equal to or greater than 30%;
 - (e) Maintain a standing vegetative cover (i.e., vegetation that is attached (rooted) with a predominant vertical orientation) that is equal to or greater than 10% and where the threshold friction velocity is equal to or greater than 43 cm/second when corrected for non-erodible elements;
 - (f) Maintain a percent cover that is equal to or greater than 10% for non-erodible elements; or
 - (g) Comply with a standard of an alternative test method upon obtaining written approval from the Control Officer, Director and the Administrator of the EPA.
- c. The Permittee shall implement control measures before, after and while conducting any dust generating operation, including during weekends, after work hours, and on holidays. See subsection 304.3, Table 1 and Table 2 of County Rule 310. For the purpose of this condition, any control measure that is implemented must meet the applicable standard(s) described in County Rule 310 §301 and §302, as determined by the corresponding test method(s), as applicable, and must meet other applicable standard(s) set forth in County Rule 310. Failure to comply with the provisions of County Rule 310, Section 308 (Work Practices), as applicable, or of an approved Dust Control Plan, is deemed a violation of this permit. Regardless of whether an approved Dust Control Plan is in place or not, the Permittee is still subject to all of the requirements of this condition, even if such Permittee is complying with the approved Dust Control Plan.

[Maricopa County Rule 310 §306]

- d. Should any primary control measures(s) in an approved Dust Control Plan prove ineffective, the Permittee shall immediately implement the contingency control measure, which may obviate the requirement of submitting a revised Dust Control Plan. Any control measure that is implemented must meet the applicable standards described in Condition IV.A.1.c above as determined by the corresponding test method(s), as applicable, and must meet other applicable standards set forth in County Rule 310.

[Maricopa County Rule 310 §§303.2, 303.3(b) and 303.4(a)]

- e. The Permittee shall comply with the following work practices.

[Maricopa County Rule 310 §308.1]

i) Bulk Material Hauling Off-Site onto Paved Public Roadways

- (a) Load all haul trucks such that the freeboard is not less than three inches;
- (b) Prevent spillage or loss of bulk material from holes or other openings in the cargo compartment's floor, sides, or tailgate(s);
- (c) Cover all haul trucks with a tarp or other suitable closure; and
- (d) Before the empty haul truck leaves the site, clean the interior of the cargo compartment or cover the cargo compartment.

ii) Bulk Material Hauling On-Site within the Boundaries of the Work Site

[Maricopa County Rule 310 §308.2]

- (a) Load all haul trucks such that the freeboard is not less than three inches;
- (b) Prevent spillage or loss of bulk material from holes or other openings in the cargo compartment's floor, sides or tailgate(s);
- (c) Install a suitable trackout control device that controls and prevents trackout or removes particulate matter from tires and the exterior surfaces of haul trucks or motor vehicles that traverse such work site. Examples of acceptable trackout are as follows:
 - i. At all access points, install a grizzly or wheel wash system;
 - ii. At all access points, install a gravel pad at least 30 feet wide, 50 feet long and 6 inches deep;
 - iii. Pave starting from the point of intersection with a paved public roadway and extending for a centerline distance of at least 100 feet and a width of at least 20 feet.

iii) Spillage, Carry-out, Erosion, and Trackout

[Maricopa County Rule 310 §308.3]

(a) Install a suitable trackout control device (examples of trackout control devices are described in Conditions IV.A.1.e(2)(c)I through IV.A.1.e(2)(c)iii above) that controls and prevents trackout or removes particulate matter from tires and the exterior surfaces of haul trucks or motor vehicles that traverse at all exits onto a paved public roadway at the following work sites:

- i. Work sites with a disturber surface area of five acres or larger; and
- ii. Work sites where 100 cubic yards of bulk materials are hauled on-site or off-site per day.

(b) Cleanup spillage, carry-out, erosion and trackout on the following time-schedule:

- i. Immediately, when spillage, carry-out, or trackout extends a cumulative distance of 50 linear feet or more; or
- ii. At the end of the work day, when spillage, carry-out, erosion, or trackout are other than the spillage, carry-out, erosion, or trackout described in Condition IV.A.1.e(3)(b)I above.

iv) Implement one or more control measure(s) described below before engaging in the use of or in the maintenance of unpaved haul/access roads:

[Maricopa County Rule 310 §308.4]

(a) Limit vehicle speed to 15 miles per hour or less and limit vehicular trips to no more than 20 per day (total for all unpaved haul/access roads);

(b) Apply water so that the surface is visibly moist and Condition IV.A.1.b(2)(a) above is met;

(c) Pave;

(d) Apply and maintain gravel, recycled asphalt, or other suitable material in compliance with Condition IV.A.1.b(2)(a) above; or

(e) Apply a suitable dust suppressant in compliance with Condition IV.A.1.b(2)(a) above.

- v) For the purpose of this condition, an open storage pile is any accumulation of bulk material with a 5% or greater silt content, which in any one point attains a height of three feet and covers a total surface area of 150 square feet or more. Silt content shall be assumed to be 5% or greater unless a person can show, by testing in accordance with ASTM Method C136-96A or an equivalent method approved in writing by the Control Officer, Director and the Administrator of the EPA, that the silt content is less than 5%.

[Maricopa County Rule 310 §308.6]

- (a) During stacking, loading, and unloading operations, apply water, as necessary, to maintain compliance with Condition IV.A.1.a above; and
- (b) When not conducting stacking, loading, and unloading operations, comply with one of the following work practices:
- i. Cover open storage piles with tarps, plastic, or other material to prevent wind from removing the coverings;
 - ii. Apply water to maintain soil moisture content at a minimum of 12%, as determined by ASTM Method D2216-98, or an equivalent method as approved by the Control Officer, Director and the Administrator of the EPA. For areas which have an optimum moisture content for compaction of less than 12%, as determined by ASTM Method D1557-91(1998) or an equivalent method approved by the Control Officer, Director and the Administrator of the EPA, maintain at least 70% of the optimum soil moisture content;
 - iii. Meet one of the stabilization requirements described in Condition IV.A.1.b(3) above; or
 - iv. Construct and maintain wind barriers, storage silos, or a three-sided enclosure with walls, whose length is no less than equal to the length of the pile, whose distance from the pile is no more than twice the height of the pile, whose height is equal to the pile height, and whose porosity is no more than 50%. If implementing this condition, the Permittee must also implement either Condition IV.A.1.e(5)(b)ii or IV.A.1.e(5)(b)iii above.
- vi) The Permittee shall obtain a revision to their permit before allowing or engaging in the following on a routine basis:

- (a) Weed abatement by discing or blading; or

- (b) Earthmoving operations on disturbed surface areas one acre or greater. (Earthmoving activities associated with construction may be conducted after a separate earthmoving permit is obtained from the Control Officer and Director).

[Maricopa County Rule 210 §302.1.b(1)]

2. Monitoring/Recordkeeping/Reporting Requirements

- a. Opacity Observations for Unpaved Parking Lots and Unpaved Haul/Access Roads

[Maricopa County Rule 210 §302.1.c(2)]

- i) Opacity observations, in accordance with Appendix C of the Maricopa County Air Pollution Control Rules and Regulations, shall be performed once per day by a certified observer at the highest dust-producing locations on the site for five consecutive days of operation. The observer shall log the location, time and result of each observation. The locations where the reading will be performed will be clearly identified in the dust control plan, which shall be revised as necessary to keep it current. If the 20% opacity limit has not been exceeded during the continuous five-day observation period, then observations will only be required once every two weeks.
- ii) The observer shall move from location to location as quickly as is reasonable when conducting opacity observations. If the opacity exceeds 20%, then opacity observations will be required once per day for a continuous five day period to verify the efficiency of increased control measures implemented to reduce dust formation. If the 20% opacity limit has not been exceeded during the continuous five-day observation periods, then observations will only be required once every two weeks. The observer shall log the location, time and result of each observation.
- iii) If a control method is changed or if the frequency of application of an existing control method is decreased, then observations will be required once per day at all locations specified in the dust control plan for a continuous five day period to ensure that the 20% opacity limit is not exceeded. If the 20% opacity limit has not been exceeded during the continuous five-day observation period, then observations will only be required once every two weeks. The observer shall log the location, time and result of each observation.

- b. Stability Observations for Disturbed Inactive Sites

[Maricopa County Rule 210 §302.1.c(2)]

- i) The Permittee shall observe inactive areas for evidence of disturbance on a daily basis. The location and nature of any disturbances on inactive areas shall be recorded. If any inactive areas are found to be disturbed, then the Permittee shall perform one of the stability tests in Condition IV.A.3.d below.
- ii) Records of the results of the daily observations of inactive sites, and any stability tests conducted, shall be logged. The log shall include the

location, time, date and results of any observations and tests conducted.

c. Water or Dust Suppressants Applied

The Permittee shall record, on a daily basis, the date, location and frequency of watering or application of dust suppressants. If certain conditions exist such that application of water or dust suppressants is not necessary (such as wet weather conditions), then it shall be noted in the records.

[Maricopa County Rule 210 §302.1.c(2)]

d. Complaint Records

A record of all complaints with regard to the site shall be kept, including the date, nature of the complaint, investigations conducted, and control measures implemented to remedy the dust problem. Investigations in response to dust complaints shall include an opacity observation for a five-day period as stated in Condition IV.A.3.a above. If the 20% opacity limit has not been exceeded during the continuous five-day observations period, then observations will only be required once every two weeks.

[Maricopa County Rule 210 §302.1.c(2)]

3. Testing Requirements

The following test methods shall be used as appropriate.

- a. Dust Generating Operations: Opacity observations of a source engaging in dust generating operations shall be conducted in accordance with County Rules Appendix C, Section 3 (Visual Determination of Opacity of Emissions from Sources for Time-Averaged Regulations) of County Rule 310, except opacity observations for intermittent sources shall require 12 rather than 24 consecutive readings at 15-second intervals for the averaging time.

[Maricopa County Rule 310 §501.1(a), Appendix C Section 3]

- b. Unpaved Haul/Access Roads: Opacity observations of any unpaved haul/access road (whether at a work site that is under construction or at a work site that is temporarily or permanently inactive) shall be conducted in accordance with Appendix C, Section 2.1 (Test Methods for Stabilization- For Unpaved Roads and Unpaved Parking Lots) of the County Rules.

[Maricopa County Rule 310 §501.1I, Appendix C Section 2.1]

- c. Unpaved Parking Lots: Opacity observations of any unpaved parking lot shall be conducted in accordance with Appendix C Section 2.1 (Test Methods for Stabilization-For Unpaved Roads and Unpaved Parking Lots) of the County Rules.

[Maricopa County Rule 310 §501.1(b), Appendix C Section 2.1]

- d. Unpaved Haul/Access Roads: Stabilization observations for unpaved haul/access roads (whether at a work site that is under construction or at a work site that is temporarily or permanently inactive) shall be conducted in accordance with Appendix C, Section 2.1 (Test Methods for Stabilization-For Unpaved Roads and Unpaved Parking Lots) of the County Rules. When more than one test method is permitted for a determination, an exceedance of the limits, established in this rule, determined by any of the applicable test methods, constitutes a violation of the County Rules.

[Maricopa County Rule 310 §501.2(b), Appendix C Section 2.1]

- e. Unpaved Parking Lots: Stabilization observations for unpaved parking lots shall be conducted in accordance with Appendix C, Section 2.1 (Test Methods for Stabilization-For Unpaved Roads and Unpaved Parking Lots) of the County Rules. When more than one test method is permitted for a determination, exceedance of the limits, established in this rule, determined by any of the applicable test methods, constitutes a violation of the County Rules.

[Maricopa County Rule 310 §501.2(a), Appendix C Section 2.1]

- f. Open Areas and Vacant Lots or Disturbed Surface Areas: Stabilization observations for an open area and vacant lot or any disturbed surface area on which no activity is occurring (whether at a work site that is under construction or at a work site that is temporarily or permanently inactive) shall be conducted in accordance with at least one of the techniques described in Conditions IV.A.3.f(1) through IV.A.3.f(7) below, as applicable. The Permittee shall be considered in violation of this condition if the inactive disturbed surface area is not maintained in a manner that meets at least one of the standards described in Condition IV.A.1.b above, as applicable.

[Maricopa County Rule 310 §501.2I, Appendix C Section 2.1]

- i) Appendix C, Section 2.3 (Test Methods for Stabilization – Visible Crust Determination) (the Drop Ball/Steel Ball Test) of the County Rules for a visible crust;
- ii) Appendix C, Section 2.4 (Test Methods for Stabilization – Determination of Threshold Friction Velocity (TFV)) (Sieving Field Procedure) of the County Rules for threshold friction velocity corrected for non-erodible elements of 100 cm/second or higher;
- iii) Appendix C, Section 2.5 (Test Methods for Stabilization – Determination of Flat Vegetative Cover) of the County Rules for flat vegetation cover (i.e., attached (rooted) vegetation or unattached vegetative debris lying on the surface with a predominant horizontal orientation that is not subject to movement by wind) that is equal to at least 50%;
- iv) Appendix C, Section 2.6 (Test Methods for Stabilization Determination of Standing Vegetative Cover) of the County Rules for standing vegetation cover (i.e. vegetation that is attached (rooted) with a predominant vertical orientation) that is equal to or greater than 30%;
- v) Appendix C, Section 2.6 (Test Methods for Stabilization Determination of Standing Vegetative Cover) of the County Rules for standing vegetation cover (i.e. vegetation that is attached (rooted) with a predominant vertical orientation) that is equal to or greater than 10% and where the threshold friction velocity is equal to or greater than 43 cm/second when corrected for non-erodible elements;
- vi) Appendix C, Section 2.7 (Test Methods for Stabilization- Rock Test Method) of the County Rules for a percent cover that is equal to or

greater than 10%, for non-erodible elements; or

- vii) An alternative test method approved in writing by the Control Officer, Director and the Administrator of the EPA.

4. Permit Shield

Compliance with the conditions of this Part shall be deemed compliance with Maricopa County Rule 310 §301.1, Maricopa County Rule 310 §302.1, Maricopa County Rule 310 §302.2.a, Maricopa County Rule 310 §302.2.b, Maricopa County Rule 310 §302.3, Maricopa County Rule 310 §306, Maricopa County Rule 310 §303.2, Maricopa County Rule 310 §303.3(b), Maricopa County Rule 310 §303.4(a), Maricopa County Rule 310 §308.1, Maricopa County Rule 310 §308.2, Maricopa County Rule 310 §308.3, Maricopa County Rule 310 §308.4, Maricopa County Rule 310 §308.6, Maricopa County Rule 310 §501.1(a), Maricopa County Rule 310 §501.1(b), Maricopa County Rule 310 §501.1(c), Maricopa County Rule 310 §501.2(a), Maricopa County Rule 310 §501.2(b) and Maricopa County Rule 310 §501.2(c)

[Maricopa County Rule 230 §309]

B. Dust Control Plan Required

- 1. The Permittee shall submit a Dust Control Plan and obtain the Control Officer and Director's approval of the Dust Control Plan, before commencing any routine dust generating operation. The Dust Control Plan shall describe all control measures to be implemented before, after and while conducting any dust generating operation, including during weekends, after work hours, and on holidays. The Plan shall include at least all of the information contained in Condition IV.B.4. At least one primary control measure and one contingency control measure must be identified from Table 1 of County Rule 310.

[Maricopa County Rule 310 §§303.2, 303.3(b) and 303.4(a)]

- 2. Failure to comply with the provisions of an approved Dust Control Plan is deemed to be a violation of this permit. Regardless of whether an approved Dust Control Plan is in place or not, the Permittee is still subject to all of the requirements of Condition IV.B at all times. In addition, the Permittee with an approved Dust Control Plan is still subject to all of the requirements of County Rule 310, even if the Permittee is complying with the approved Dust Control Plan.

[Maricopa County Rule 310 §§303.1 and 306]

- 3. If the Control Officer and Director determines that an approved Dust Control Plan has been followed, yet fugitive dust emissions from any given fugitive dust source still exceed limits from this condition, then the Permittee shall make written revisions to the Dust Control Plan and shall submit such revised Dust Control Plan to the Control Officer and Director within three working days of receipt of the Control Officer and Director's written notice, unless such time period is extended by the Control Officer and Director, upon request, for good cause. During the time that the Permittee is preparing revisions to the approved Dust Control Plan, the Permittee must still comply with all of the requirements of Condition IV.B.

[Maricopa County Rule 310 §305]

- 4. A Dust Control Plan shall contain, at a minimum, all of the following information:
 - a. Names, address(es), and phone numbers of person(s) responsible for the submittal and implementation of the Dust Control Plan and responsible for the

dust generating operation.

[Maricopa County Rule 310 §304.1]

b. A plot plan of each site, which describes:

- i) Entire project site boundaries;
- ii) Acres to be disturbed with linear dimensions;
- iii) Nearest public roads;
- iv) North arrow; and
- v) Planned exit locations onto paved public roadways.

[Maricopa County Rule 310 §304.2]

c. Control measures or a combination thereof to be applied to all actual and potential fugitive dust sources, before, after and while conducting any dust generating operation, including during weekends, after work hours, and on holidays.

[Maricopa County Rule 310 §304.3]

- i) At least one primary control measure and one contingency control measure must be identified from Table 1 of County Rule 316 for all fugitive dust sources. Should any primary control measure(s) prove ineffective, the Permittee shall immediately implement the contingency control measure(s), which may obviate the requirement of submitting a revised Dust Control Plan.
- ii) Alternatively, a control measure(s) that is not in Table 1 of County Rule 316 may be chosen, provided that such control measure(s) is implemented to comply with the standard(s) described in Sections 301 and 302 of County Rule 316, as determined by the corresponding test method(s), as applicable, and must meet other applicable standard(s) set forth in this rule.
- iii) If complying with subsection 302.2(b) (stabilization requirements for fugitive dust sources-unpaved haul/access roads) of County Rule 316, must include the number of vehicles traveled on the unpaved haul/access roads (i.e. number of employee vehicles, earthmoving equipment, haul trucks and water trucks).

d. Dust suppressants to be applied, including product specifications or label instructions for approved usage:

- i) Method, frequency, and intensity of application;
- ii) Type, number and capacity of application equipment; and

- iii) Information on environmental impacts and approvals or certifications related to appropriate and safe use for ground application.

[Maricopa County Rule 310 §304.4]

- e. Specific surface treatment(s) or control measures utilized to control material trackout and sedimentation where unpaved or access points join paved public roadways.

[Maricopa County Rule 310 §304.5]

5. Monitoring/Recordkeeping/Reporting Requirements

- a. The Permittee shall keep a daily written log recording the actual application or implementation of the control measures delineated in the approved Dust Control Plan. The log or the records and supporting documentation shall be made available to the Control Officer and Director within 48 hours, excluding weekends, after receiving a written or verbal request. If the Control Officer and Director is at the site where requested records are kept, records shall be provided without delay.

[Maricopa County Rule 310 §502]

- b. Copies of approved Dust Control Plans, control measures implementation records, and all supporting documentation shall be retained at least five years from the date such records are established.

[Maricopa County Rule 310 §503]

- c. Beginning with permit issuance, the Permittee shall file a semiannual compliance report within 30 days of the end of the six-month period to the Control Officer and Director with attention to Large Source Compliance Supervisor, explaining any deviation from the approved Dust Control Plan, reason for that deviation and any corrective actions taken.

[Maricopa County Rule 210 §302.1.e(1)]

6. Permit Shield

Compliance with the conditions of this Part shall be deemed compliance with Maricopa County Rule 310 §303.2., Maricopa County Rule 310 §303.3(b), Maricopa County Rule 310 §303.4(a), Maricopa County Rule 310 §303.1, Maricopa County Rule 310 §306, Maricopa County Rule 310 §305, Maricopa County Rule 310 §304.1, Maricopa County Rule 310 §304.2, Maricopa County Rule 310 §304.3, Maricopa County Rule 310 §304.4, Maricopa County Rule 310 §304.5, Maricopa County Rule 310 §502 and Maricopa County Rule 310 §503.

[Maricopa County Rule 230 §309]

V. CONDITIONS SPECIFIC TO PORTABLE SOURCES

Move Notice Requirements

- A. A portable source may be transported from one location to another within or across Maricopa County boundaries provided the owner or operator of such portable source notifies the Director and any Control Officer and Director who has jurisdiction over the geographic area that includes the new location of the portable source by certified mail at least ten working days before the portable source is transported to the new location. The notification required under this rule shall include:

- a. A description of the portable source to be transported including the Maricopa County permit number or the State of Arizona permit number for such portable source;
- b. A description of the present location;
- c. A description of the location to which the portable source is to be transported, including the availability of all utilities, such as water and electricity, necessary for the proper operation of all control equipment;
- d. The date on which the portable source is to be moved;
- e. The date on which operation of the portable source will begin at the new location; and
- f. The duration of operation at the new location.

[Maricopa County Rule 200 §410.4]

- B.** An owner or operator of a portable source with a current State of Arizona permit that moves such portable source into Maricopa County shall notify the Control Officer and Director that such portable source is being transported to a new location and shall include in such notification a copy of the State of Arizona permit and a copy of any conditions imposed by the State of Arizona permit. The source shall be subject to all regulatory requirements of these rules.

[Maricopa County Rule 200 §410.5]

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

I. APPLICABILITY OF MULTIPLE PERMIT CONDITIONS

[A.R.S. § 49-402(D)]

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. CRUSHING AND SCREENING PLANT REQUIREMENTS

[Pima County Code §§ 17.16.370]

The provisions of this section are applicable to the following affected facilities: primary rock crushers, secondary rock crushers, tertiary rock crushers, screens, conveyors and conveyor transfer points, stackers, reclaimers, and all gravel or crushed stone processing plants and rock storage piles.

Particulate Matter Emissions

A. Emissions Limitations/Standards

[Pima County Code §§ 17.16.370.B-C]

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

- a. For facilities having a process weight rate of sixty thousand pounds per hour (thirty tons per hour) or less, the maximum allowable emissions shall be determined by the following equation.

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

where:

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

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

- b. For facilities having a process weight rate greater than sixty thousand pounds per hour (thirty tons per hour), the maximum allowable emissions shall be determined by the following equation:

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

where:

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

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

2. The actual values shall be calculated from the applicable equations and rounded off to two decimal places.

B. Permit Shield

[Pima County Code §§ 17.12.310]

Compliance with this Section and Conditions of Attachment “B” shall be deemed compliance with Pima County Code §§ 17.16.370.B-C.

III. FUGITIVE EMISSIONS REQUIREMENTS

A. Visibility Limiting Standard

[Pima County Code §§ 17.16.050]

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. 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:
 - 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.
3. Open fires that are permitted in accordance with 17.12.480 of the Pima County Code are exempt from the requirements of this Part.
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 reasonable necessary and feasible precautions are taken.
 - a. Condition III.A.4 shall not apply when speeds exceed twenty-five (25) miles per hour (using the Beaufort Scale of Wind-Speed Equivalents, 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.
 - b. Condition III.A.4 shall not apply to the generation of airborne particulate matter from undisturbed land. (Ord. 1999-11 § 2, 1999; Ord. 1995-87 § 39, 1995; Ord. 1994-83 § 49, 1994; Ord. 1993-128 § 4 (part), 1993)
5. Monitoring and Recordkeeping

The Permittee shall conduct a weekly visual survey to determine compliance with Condition III.A.4 above. The Permittee shall keep a record of the name of the observer, the date on which the observation was made, and the results of the observation.

6. Permit Shield [Pima County Code §§ 17.12.310]

Compliance with this Part shall be deemed compliance with Pima County Code §§ 17.16.050.

B. Fugitive Dust Producing Activities [Pima County Code §§ 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.
 - a. 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.
 - b. 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 III.B.1 above.

2. Permit Shield [Pima County Code §§ 17.12.310]

Compliance with this Part shall be deemed compliance with Pima County Code §§ 17.16.060.

C. Vacant Lots and Open Spaces [Pima County Code §§ 17.16.080]

1. No vacant lot, housing plot, building site, parking area, sales lot, playground, livestock feedlot, or other open area - other than those used solely for soil-cultivation or vegetative crop-producing and harvesting agricultural purposes - shall be used or left in such a state after construction, alteration, clearing, leveling, or excavation that naturally induced wind blowing over the area causes a violation of Condition III.A above. Dust emissions must be permanently suppressed by landscaping, covering with gravel or vegetation, paving, or applying equivalently effective controls.
2. No vacant lot, parking area, sales lot, or other open urban area shall be used by motor vehicles in such a manner that visible dust emissions induced by vehicular traffic on the area cause a violation of Condition III.A above. (Ord. 1995-87 § 43, 1995: Ord. 1993-128 § 4 (part), 1993)

3. Permit Shield [Pima County Code §§ 17.12.310]

Compliance with this Part and Conditions of Attachment “B” shall be deemed compliance with Pima County Code §§ 17.16.080.

D. Roads and Streets [Pima County Code §§ 17.16.090]

1. No new unpaved private driveway shall be constructed unless the road will not be used by more vehicular traffic than 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.
2. No new unpaved service road or unpaved haul road shall be constructed unless dust will

be suppressed after construction by intermittently watering, limiting access, or applying chemical dust suppressants to the road, in such a way that visible dust emissions caused by vehicular traffic on the road do not violate Condition III.A above.

3. 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.
4. The surfacing of roadways with asbestos tailings is prohibited.
5. Permit Shield [Pima County Code §§ 17.12.310]

Compliance with this Part and Conditions of Attachment “B” shall be deemed compliance with Pima County Code §§ 17.16.090.

E. Particulate Materials [Pima County Code §§ 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. Permit Shield [Pima County Code §§ 17.12.310]

Compliance with this Part and Conditions of Attachment “B” shall be deemed compliance with Pima County Code §§ 17.16.100.

F. Storage Piles [Pima County Code §§ 17.16.110]

1. 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 III.A above. (Ord. 1993-128 § 4 (part), 1993)
2. Permit Shield [Pima County Code §§ 17.12.310]

Compliance with this Part and Conditions of Attachment “B” shall be deemed compliance with Pima County Code §§ 17.16.110.

G. Mineral Tailings [Pima County Code §§ 17.16.120]

1. The Permittee shall not cause, suffer, allow, or permit construction of mineral tailings piles without taking reasonable precautions (i.e., wetting, chemical stabilization and revegetation) to minimize and control to ensure compliance with Condition III.A above. (Ord. 1995-87 § 46, 1995: Ord. 1993-128 § 4 (part), 1993)
2. Permit Shield [Pima County Code §§ 17.12.310]

Compliance with this Part and Conditions of Attachment “B” shall be deemed compliance with Pima County Code §§ 17.16.120.

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

I. APPLICABILITY OF MULTIPLE PERMIT CONDITIONS

[A.R.S. § 49-402(D)]

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.