

DRAFT

This page left blank intentionally

**AIR QUALITY CONTROL GENERAL PERMIT
FOR
HOSPITAL FACILITIES**

INTRODUCTION

Owners/operators of hospital facilities which operate a combination of boilers, internal combustion engines, and ethylene oxide sterilizers may obtain coverage under this General Permit in lieu of an individual permit. Such parties shall do so by obtaining an individual "Authorization to Operate" (ATO) for each boiler, internal combustion engine, and ethylene oxide sterilizer which will attest to their formal agreement to abide by all conditions contained herein.

The applicable requirements governing each permit condition are enclosed in brackets ([...]) and follow each condition heading. Material permit conditions are indicated by a single underline and italics pursuant to A.A.C. R18-2-331.

Facilities that have boilers with a maximum heat rating greater than 100 million Btu per hour do not qualify for this general permit. Permittees covered under this General Permit may operate each boiler up to the maximum number of hours per year listed in the ATO. Internal combustion engine(s) are limited to the hours restriction in the ATOs during non-emergency periods. There are no restrictions on the hours of operation of the engines during emergency periods.

This page left blank intentionally.

DRAFT

TABLE OF CONTENTS

INTRODUCTION.....	3
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	9
V. FEE PAYMENT	9
VI. ANNUAL EMISSIONS INVENTORY QUESTIONNAIRE	9
VII. COMPLIANCE CERTIFICATION	9
VIII. CERTIFICATION OF TRUTH, ACCURACY AND COMPLETENESS	10
IX. INSPECTION AND ENTRY	10
X. PERMIT REVISION PURSUANT TO FEDERAL HAZARDOUS AIR POLLUTANT STANDARD.....	10
XI. ACCIDENTAL RELEASE PROGRAM.....	11
XII. EXCESS EMISSIONS, PERMIT DEVIATIONS, AND EMERGENCY REPORTING	11
XIII. RECORD KEEPING REQUIREMENTS	16
XIV. REPORTING REQUIREMENTS	16
XV. DUTY TO PROVIDE INFORMATION.....	16
XVI. PERMIT COVERAGE AMENDMENTS OR REVISIONS.....	17
XVII. FACILITY CHANGE ALLOWED WITHOUT OBTAINING AN ATO OR INDIVIDUAL PERMIT.....	17
XVIII. TESTING REQUIREMENTS.....	19
XIX. PROPERTY RIGHTS.....	21
XX. SEVERABILITY CLAUSE	21
XXI. PERMIT SHIELD.....	21
ATTACHMENT “B”: SPECIFIC CONDITIONS	23
I. FACILITY-WIDE REQUIREMENTS.....	23
II. BOILERS NOT SUBJECT TO NEW SOURCE PERFORMANCE STANDARDS (NON-NSPS BOILERS)	24
III. BOILERS SUBJECT TO NEW SOURCE PERFORMANCE STANDARDS (NSPS)	26
IV. INTERNAL COMBUSTION ENGINE(S)	29
V. ETHYLENE OXIDE STERILIZERS.....	48
VI. FUGITIVE DUST REQUIREMENTS.....	50
VII. OTHER PERIODIC ACTIVITIES.....	51

This page left blank intentionally

DRAFT

**AIR QUALITY CONTROL GENERAL PERMIT
FOR HOSPITAL FACILITIES**

ATTACHMENT "A": GENERAL PROVISIONS

I. GENERAL PERMIT EXPIRATION AND RENEWAL

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

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

II. COMPLIANCE WITH PERMIT CONDITIONS

- A.** The Permittee shall comply with all conditions of this General Permit including all applicable requirements of 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 requirements constitutes a violation of the Clean Air Act.

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

- B.** It shall not be a defense for a Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this General Permit.

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

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

- A.** The Director may reopen and reissue, or terminate this General Permit at any time if:
1. The Director has determined that the emissions from the sources in the facility class cause or contribute to ambient air quality standards violations which are not adequately addressed by the requirements in this General Permit, or

[A.A.C. R18-2-510.A.1]

2. The Director has determined that the terms and conditions of this General Permit no longer meet the requirements of A.R.S. §49-426 and 427.

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

3. The Director or the Administrator determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.

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

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

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

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

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

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

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

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

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

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

IV. POSTING OF GENERAL PERMIT

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

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

V. FEE PAYMENT

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

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

VI. ANNUAL EMISSIONS INVENTORY QUESTIONNAIRE

- A.** The Permittee shall complete and submit to the Director an annual emissions inventory questionnaire. The questionnaire is due by March 31st or ninety days after the Director makes the inventory form available each year, whichever occurs later, and shall include emissions information for the previous calendar year.
- B.** The questionnaire shall be on a form provided by the Director and shall include the information required by A.A.C. R18-2-327.

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

VII. COMPLIANCE CERTIFICATION

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

- A.** The Permittee shall submit a compliance certification to the Director annually which describes the compliance status of the source with respect to each General Permit condition. The Permittee shall list on the compliance certification all items of equipment issued ATO(s), on site at the time of annual certification. This certification shall be submitted no later than November 15th and shall report the compliance status of the source during the period between October 1st of the previous year and September 30th of the current year.
- B.** The compliance certification shall include the following:
 - 1. Identification of each term or condition of the permit that is the basis of the certification.
 - 2. Identification of the method or other means used by the Permittee for determining the compliance status with each term and condition during the certification period.
 - 3. The status of compliance with the terms and conditions of the permit for the period covered by the certification, including whether compliance during the

period was continuous or intermittent. The certification shall be based on the methods or means designated in Condition VII.B.2 above. The certification shall identify each deviation and take it into account for consideration in the compliance certification.

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

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

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

IX. INSPECTION AND ENTRY

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

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

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

X. PERMIT REVISION PURSUANT TO FEDERAL HAZARDOUS AIR POLLUTANT STANDARD

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

XI. ACCIDENTAL RELEASE PROGRAM

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.

[40 CFR 68]

XII. EXCESS EMISSIONS, PERMIT DEVIATIONS, AND EMERGENCY REPORTING

A. Excess Emissions Reporting

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

1. Excess emissions shall be reported as follows:

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

- 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 XII.A.1.b below.
- ii. Detailed written notification by submission of an excess emissions report within 72 hours of the notification pursuant to Condition XII.A.1.a.i above

b. The report shall contain the following information:

- i. Identity of each stack or other emission point where the excess emissions occurred;
- ii. Magnitude of the excess emissions expressed in the units of the applicable emission limitation and the operating data and calculations used in determining the magnitude of the excess emissions;
- iii. Date, time and duration, or expected duration, of the excess emissions;
- iv. Identity of the equipment from which the excess emissions emanated;
- v. Nature and cause of such emissions;
- vi. If the excess emissions were the result of a malfunction, steps taken to remedy the malfunction and the steps taken or planned to prevent the recurrence of such malfunctions; and

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

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

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

B. Permit Deviations Reporting

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

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

C. Emergency Provision

1. An “emergency” means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, that require immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.

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

3. The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:

- a. An emergency occurred and that the Permittee can identify the cause(s) of the emergency;
- b. The permitted facility was being properly operated at the time;
- c. During the period of the emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards or other requirements in the permit; and

- d. The Permittee submitted notice of the emergency to the Director by certified mail, facsimile, or hand delivery within two working days of the time when emission limitations were exceeded due to the emergency. This notice shall contain a description of the emergency, any steps taken to mitigate emissions, and corrective action taken.
4. In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
5. This provision is in addition to any emergency or upset provision contained in any applicable requirement.

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

D. Compliance Schedule

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

[ARS § 49-426(I)(5)]

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

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

1. Applicability

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

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

2. Affirmative Defense for Malfunctions

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

- a. The excess emissions resulted from a sudden and unavoidable breakdown of process equipment or air pollution control equipment beyond the reasonable control of the Permittee;
- b. The air pollution control equipment, process equipment, or processes were at all times maintained and operated in a manner consistent with good practice for minimizing emissions;
- c. If repairs were required, the repairs were made in an expeditious fashion when the applicable emission limitations were being exceeded. Off-shift labor and overtime were utilized where practicable to ensure that the repairs were made as expeditiously as possible. If off-shift labor and overtime were not utilized, the Permittee satisfactorily demonstrated that the measures were impracticable;
- d. The amount and duration of the excess emissions (including any bypass operation) were minimized to the maximum extent practicable during periods of such emissions;
- e. All reasonable steps were taken to minimize the impact of the excess emissions on ambient air quality;
- f. The excess emissions were not part of a recurring pattern indicative of inadequate design, operation, or maintenance;
- g. During the period of excess emissions there were no exceedances of the relevant ambient air quality standards established in Title 18, Chapter 2, Article 2 of the Arizona Administrative Code that could be attributed to the emitting source;
- h. The excess emissions did not stem from any activity or event that could have been foreseen and avoided, or planned, and could not have been avoided by better operations and maintenance practices;
- i. All emissions monitoring systems were kept in operation if at all practicable; and
- j. The Permittee's actions in response to the excess emissions were documented by contemporaneous records.

3. Affirmative Defense for Startup and Shutdown

- a. Except as provided in Condition XII.E.3.b below, and unless otherwise provided for in the applicable requirement, emissions in excess of an applicable emission limitation due to startup and shutdown shall constitute a violation. When emissions in excess of an applicable emission limitation are due to startup and shutdown, the Permittee has an affirmative defense to a civil or administrative enforcement proceeding based on that violation, other than a judicial action seeking injunctive relief, if the Permittee has complied with the reporting requirements of A.A.C. R18-2-310.01 and has demonstrated all of the following:

- 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 XII.E.2 above.

4. Affirmative Defense for Malfunctions during Scheduled Maintenance

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

5. Demonstration of Reasonable and Practicable Measures

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

XIII. RECORD KEEPING REQUIREMENTS

- A.** The Permittee shall keep records of all required monitoring information including, but not limited to, the following:
1. The date, place as defined in the permit, and time of sampling or measurements;
 2. The date(s) analyses were performed;
 3. The name of the company or entity that performed the analyses;
 4. A description of the analytical techniques or methods used;
 5. The results of such analyses; and
 6. The operating conditions existing at the time of sampling or measurement.
- B.** The Permittee shall retain records of all required monitoring data and support information for a period of at least 5 years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings or other data recordings for continuous monitoring instrumentation, and copies of all reports required by the permit.
- C.** All required records shall be maintained either in an unchangeable electronic format or in a handwritten logbook utilizing indelible ink.

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

XIV. REPORTING REQUIREMENTS

The Permittee shall submit the following reports:

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

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

XV. DUTY TO PROVIDE INFORMATION

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

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

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

XVI. PERMIT COVERAGE AMENDMENTS OR REVISIONS

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

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

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

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

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

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

- A.** Except for a physical change or change in the method of operation at a Class II source subject to logging or notice requirements in Conditions XVII.B and XVII.C below, a change at a Class II source shall not be subject to revision, notice, or logging requirements under this Section.
- B.** Except as otherwise provided in the conditions applicable to an emissions cap created under R18-2-306.02, the following changes may be made if the source keeps on site records of the changes according to Subsection I:
 1. Implementing an alternative operating scenario, including raw material changes;
 2. Changing process equipment (as long as the change does not require a new ATO), operating procedures, or making any other physical change if the permit requires the change to be logged;
 3. Engaging in any new insignificant activity listed in A.A.C. R18-2-101.57.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. Except as provided in the conditions applicable to an emissions cap created under R18-2-306.02, the following changes may be made if the source provides written notice to the Department in advance of the change as provided below:

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

D. For each change under Condition XVII.C above, the written notice shall be by certified mail or hand delivery and shall be received by the Director the minimum amount of time in advance of the change. Notifications of changes associated with emergency conditions, such as malfunctions necessitating the replacement of equipment, may be provided with less than required notice, but 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 XVII.B.1.
 - F.** Notwithstanding any other part of this Section, the Director may require a permit to be revised for any change that, when considered together with any other changes submitted by the same source under this Section over the term of the permit, constitutes a change under A.A.C. R18-2-317.01.A.
 - G.** If a source change is described under both Conditions XVII.B and XVII.C above, the source shall comply with Condition XVII.C above. If a source change is described under both Condition XVII.C above and A.A.C. R18-2-317.01.B, the source shall comply with A.A.C. R18-2-317.01.B.
 - H.** A copy of all logs required under Condition XVII.B shall be filed with the Director within 30 days after each anniversary of the permit issuance date. If no changes were made at the source requiring logging, a statement to that effect shall be filed instead.
 - I.** Logging Requirements
 1. Each log entry required by a change under A.A.C. R18-2-317.02.B shall include at least the following information:
 - a. A description of the change, including:
 - 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.
 - iii. A description of any process material change.
 - b. The date and time that the change occurred.
 - c. The provision of A.A.C. R18-2-317.02.b that authorizes the change to be made with logging.
 - d. The date the entry was made and the first and last name of the person making the entry.
 2. Logs shall be kept for 5 years from the date created. Logging shall be performed in indelible ink in a bound log book with sequentially numbered pages, or in any other form, including electronic format, approved by the Director.

XVIII. TESTING REQUIREMENTS

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

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

B. Operational Conditions During Testing

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

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

D. Test Plan

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

XIX. PROPERTY RIGHTS

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

XX. SEVERABILITY CLAUSE

The provisions of this General Permit are severable. In the event of a challenge to any portion of this General Permit, or if any portion of this permit is held invalid, the remaining permit conditions remain valid and in force.
[A.A.C. R18-2-306.A.7]

XXI. PERMIT SHIELD

As of the date an ATO for a source is granted, compliance with the conditions of this General Permit shall be deemed compliance with all applicable requirements in effect on the date of General Permit issuance, provided that such applicable requirements are included and expressly identified in this permit. The permit shield shall not apply to any changes made pursuant to Section XVII of this Attachment.
[A.A.C. R18-2-325 and -508]

DRAFT

This page left blank intentionally

**AIR QUALITY CONTROL GENERAL PERMIT
FOR HOSPITAL FACILITIES**

ATTACHMENT “B”: SPECIFIC CONDITIONS

I. FACILITY-WIDE REQUIREMENTS

- A.** This General Permit does not cover sources located within Maricopa, Pima or Pinal Counties. [A.A.C. R18-2-306.01]
- B.** All boiler stacks shall be designed in such a way that they are above the buildings in the vicinity, are capable of discharging vertically and there are no obstructions to gas flow such as rain caps, except for hinged rain caps. [A.A.C. R18-2-306.01]
- C.** Within 90 days of obtaining coverage under this general permit, the Permittee shall have on-site or on-call an employee or contractor who is a certified EPA Reference Method 9 observer. [A.A.C. R18-2-306.A.3.c]
- D.** The Permittee shall operate all equipment in accordance with vendor-supplied operations and maintenance instructions. If vendor-supplied operations and maintenance instructions are not available, the Permittee shall prepare an Operations and Maintenance Plan which provides adequate information to properly operate and maintain the equipment in good working order. In the absence of vendor supplied operations and maintenance instructions, the Permittee shall operate the equipment in accordance with this Operation and Maintenance Plan. The Permittee shall keep a log of all activities conducted pursuant to the vendor supplied instructions or the Operation and Maintenance Plan. [A.A.C.R18-2-306.A.3]
- E.** 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. [A.A.C.R18-2-306.A.4]
- F.** The Permittee shall submit reports of all monitoring activities required in Attachment “B” along with the compliance certifications required by Section VII of Attachment “A”. [A.A.C.R18-2-306.A.5]
- G.** *The Permittee shall not operate any boiler, in any rolling 12-month period, for more than the maximum hours listed in the ATO.* [A.A.C.R18-2-306.01 and -331.A.3.a]
[Material permit conditions are indicated by underline and italics]
- H.** For each boiler that is limited to operate less than 8,760 hours per year on the ATO, the Permittee shall maintain a log which includes actual hours of operation of each boiler. At the end of each calendar month, the Permittee shall calculate the rolling total hours of operation for each boiler for the previous 12 month period. [A.A.C. R18-2-306.A.3.c]

II. BOILERS NOT SUBJECT TO NEW SOURCE PERFORMANCE STANDARDS (NON-NSPS BOILERS)

A. Applicability

This Section is applicable to any boiler with a maximum firing capacity of 100 MMBtu per hour or less that is not covered by Section III of this Attachment.

[A.A.C. R18-2-302.B and -724.A]

B. Fuel Limitation

The Permittee shall only burn natural gas, liquefied petroleum gas (Butane or Propane), or diesel fuel in the boiler(s).

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

[Material permit conditions are indicated by underline and italics]

C. Particulate Matter

1. Emission Limitation

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

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

where:

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

Q = the heat input in million Btu per hour.

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

2. Permit Shield

Compliance with the conditions of this Part shall be deemed compliance with the following applicable requirement as of the issuance date of this permit: A.A.C. R18-2-724.C.1.

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

D. Opacity Standards

1. Emission Limitations and Standards

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

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

2. Monitoring, Recordkeeping and Reporting Requirements

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

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

b. A certified Method 9 observer 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 the conditions of this Part shall be deemed compliance with the following applicable requirement as of the issuance date of this permit: A.A.C. R18-2-724.J.

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

E. Sulfur Dioxide

1. Emissions Limitation

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

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

2. Monitoring, Reporting and Record Keeping

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

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

3. Permit Shield

Compliance with the conditions of this Part shall be deemed compliance with the following applicable requirements as of the issuance date of this permit: A.A.C. R18-2-724.E and G.

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

III. BOILERS SUBJECT TO NEW SOURCE PERFORMANCE STANDARDS (NSPS)

A. Applicability

1. Boilers with maximum firing capacities between 10 and 100 MMBtu/hr and commenced construction, modification, or reconstruction after June 9, 1989, are subject to the requirements of this Section.
[40 C.F.R. 60.40c(a)]
2. The requirements of Section II of this Attachment are not applicable to boilers covered under Section III.

B. Fuel Limitations

1. Type of Fuel

The Permittee shall only burn natural gas, liquefied petroleum gas, or diesel fuel in the boiler(s), as specified in the ATO.

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

[Material permit conditions are indicated by underline and italics]

2. Monitoring & Recordkeeping

The Permittee shall record the amount of fuel combusted during each day for each boiler. While combusting diesel, the Permittee may elect to record the amount of fuel combusted during each month for each boiler by providing a fuel certification with the following information:

- a. The name of the fuel supplier;
- b. A statement from the fuel supplier that the fuel complies with the specifications under the definition of distillate oil in §60.41c; and
- c. The sulfur content or maximum sulfur content of the fuel.

[40 C.F.R. 60.48c(g)(1), 40 C.F.R. 60.48c(g)(2), and 40 C.F.R. 60.48c(g)(3)]

3. Permit Shield

Compliance with the conditions of this Part shall be deemed compliance with the following applicable requirement as of the issuance date of this permit: 40 CFR 60.48c(g).

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

C. Opacity Standard

1. Emission Limitations and Standards

- a. *The Permittee of a boiler that is permitted in its ATO to burn diesel fuel and with a heat input capacity of 30 MMBtu/hr or greater, shall not cause, allow or permit the opacity of any plume or effluent from such*

boiler to exceed 20 percent, except for one 6-minute period per hour of not more than 27 percent opacity.

[40 C.F.R. 60.43c(c)]

[Material permit conditions are indicated by underlines and italics]

- b. The opacity limit in Condition III.C.1.a applies at all times except during periods of start up, shut down, or malfunction.

[40 C.F.R. 60.43c(d)]

2. Monitoring, Recordkeeping, and Reporting

- a. The Permittee shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of the boiler(s).

[40 C.F.R. 60.7(b)]

- b. The Permittee shall submit excess emission reports for any excess emissions from the boiler(s), in accordance with Section XII of Attachment "A" and maintain records according to the requirements specified in Condition III.C.2.c below.

[40 C.F.R. 60.48c(c)]

- c. The Permittee shall keep records including the following information:

i. Dates and time intervals of all opacity observation periods;

ii. Name, affiliation, and copy of current visible emission reading certification for each visible emission observer participating in the performance test; and

iii. Copies of all visible emission observer opacity field data sheets.

[40 C.F.R. 60.48c(c)(1)]

3. Testing

Initial Performance Test – NSPS Boiler(s) with a heat input capacity of 30 MMBtu/hr or greater which fire diesel fuel.

- a. Test Method and Procedures

i. For the purposes of determining initial compliance with the applicable opacity limits in Section III.C.1 above, the Permittee shall conduct or cause to be conducted the tests and procedures set forth in EPA Reference Method 9. The Permittee shall utilize a 6-minute average of 24 observations shall be used for determining the opacity of stack emissions.

[40 C.F.R. 60.45c(a)(8)]

ii. The Permittee shall submit to the Director the performance test data from the initial performance test required by Condition III.C.3.a.i above.

[40 CFR 60.48c(b)]

b. Time Period

Opacity observations shall be conducted within 60 days after achieving the maximum production rate at which the affected facility will be operated, but no later than 180 days after initial startup of the facility.

[40 C.F.R. 60.8(a)]

4. Permit Shield

Compliance with the conditions of this Part shall be deemed compliance with the following applicable requirements as of the issuance date of this permit: 40 C.F.R. §60.43c(c) and §60.43c(d), §60.45c(a)(8), §60.48c(b) and §60.48c(c).

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

D. Limitation on Sulfur Content of Fuel

1. Emission Limitations and Standards

a. When firing diesel fuel, the Permittee shall burn only diesel fuel containing equal to or less than 0.5 percent by weight sulfur, as determined on a 30-day rolling average basis.

[40 C.F.R. §60.42c(d) and §60.42c(g)]

b. The sulfur content limit in Condition III.D.1.a applies at all times, including periods of start up, shut down, or malfunction.

[40 C.F.R. §60.42c(i)]

2. Monitoring, Record Keeping and Reporting

a. When firing diesel fuel, the initial performance test required under 40 CFR §60.8 shall consist of the first certification from the fuel supplier, containing the information described in Conditions III.D.2.b.i through iii below.

[40 CFR §60.44c(h)]

b. The Permittee shall submit semi-annual reports to the Director, postmarked by the 30th day following the end of the reporting period. The report shall include:

i. Name of the oil supplier;

ii. A statement from the oil supplier that the oil complies with the specifications under the definition of distillate oil;

iii. The sulfur content or maximum sulfur content of the oil; and

iv. A certified statement signed by the Permittee that the records of fuel supplier certifications submitted represent all of the fuel combusted during the reporting period.

[40 C.F.R §60.48c(d), §60.48c(e)(11), §60.48c(f)(1), and §60.48c(j)]

3. Permit Shield

Compliance with the conditions of this Part shall be deemed compliance with the following applicable requirements as of the issuance date of this permit: 40 C.F.R. §60.42c(d), §60.42c(g) and C.F.R. §60.42c(i), §60.44c(h), §60.48c(d), §60.48c(e)(11), §60.48c(e)(11), §60.48c(f)(1) and §60.48c(f)(1).

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

E. New Source Reporting

1. The Permittee shall provide the following notifications to ADEQ for all boilers subject to construction, reconstruction or modification, as those terms are defined in 40 C.F.R. Sections 60.2, 60.14 and 60.15, during the term of this permit:

- a. Design heat input of the boiler, identification of fuels to be combusted in the boiler(s), the annual capacity factor at which the Permittee anticipates operating the boiler(s) based on all fuels fired and based on each individual fuel fired.
- b. Date of construction commencement – postmarked no later than 30 days after such date.
- c. Date of anticipated start-up – postmarked not more than 60 days or less than 30 days prior to such date.
- d. Date of actual start-up – postmarked within 15 days after such date.

[40 C.F.R. §60.7(a) and §60.48c(a)]

IV. INTERNAL COMBUSTION ENGINE(S)

A. Fuel Limitations

1. *The Permittee shall only burn gasoline, natural gas, liquefied petroleum gas, or diesel fuel in the internal combustion engine(s).*

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

[Material permit conditions are indicated by underline and italics]

2. The Permittee shall maintain copies of fuel supplier certifications which verify that the sulfur content of the fuel is less than the limit specified in Condition IV.C.2.a.v for engines marked as subject to NSPS Subpart IIII on the associated ATO or Condition IV.E.3.a.ii for engines marked as not subject to NSPS on the associated ATO.

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

B. Limitation on Hours of Operation

1. Hours of Operation

The Permittee shall not operate the internal combustion engine(s) for more than the rolling 12-month hours restriction identified in the ATOs or 500 hours per rolling 12-month period, whichever is less. The hours restriction in the ATOs do not apply during emergency periods of operation. Operating hours shall be defined as the actual cumulative time an internal combustion engine was in use.

2. Monitoring, Record Keeping, and Reporting

The Permittee shall maintain a log which includes actual hours of operation of each internal combustion engine. At the end of each calendar month, the Permittee shall calculate the rolling total hours of operation for each internal combustion engine for the previous 12 month period.

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

C. Compression Ignition Engines Subject To NSPS Subpart IIII

1. Applicability

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

2. General Requirements

a. Operating Requirements

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

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

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

[40 CFR 60.4211(a)]

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

[40 CFR 60.4211(a)]

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

[40 CFR 60.4206]

v. Fuel Requirements

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

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

(2) A minimum cetane index of 40 or a maximum aromatic content of 35 volume percent.
[40 CFR 60.4207(a)]

(b) After October 1, 2010, an engine that uses diesel fuel and has a displacement of less than 30 liters per cylinder, shall use diesel fuel that meets the following requirements of 40 CFR 80.510(b):

(1) Sulfur content: 15 ppm maximum; and

(2) A minimum cetane index of 40 or a maximum aromatic content of 35 volume percent.
[40 CFR 60.4207(b)]

vi. Additional Emergency Engine Requirements

(a) The Permittee shall install a non-resettable hour meter prior to startup of the engine.

(b) Emergency internal combustion engines may be operated for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by Federal, State, or local government, the manufacturer, the vendor, or the insurance company associated with the engine.

(c) The Permittee shall not operate the emergency engine for the purposes of maintenance checks and readiness testing for more than 100 hours per year unless the Permittee maintains records identifying the Federal, State, or local standards that require maintenance and testing of emergency internal combustion engines beyond 100 hours per year. Copies of such records shall be provided to ADEQ upon request.

(d) The Permittee may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the Permittee maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency internal combustion engines beyond 100 hours per year.

(e) The Permittee shall not operate emergency engines except for emergency purposes, and maintenance and testing.

- (f) The Permittee shall maintain monthly records of engine operation. The records shall include the purpose of operation and the duration of time the engine was operated. The record shall identify whenever the operation of the engine was for emergency purposes.

[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]

b. Emission Limitations and Standards

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:

- (1) 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

- (2) 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)]

c. Monitoring and Record Keeping Requirements

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

[40 CFR 4211(c)]

ii. The Permittee of a fire pump engine that is manufactured during or after the model year that applies to the fire pump engine power (EP) rating in the following table and is required to comply with the emission standards specified in Conditions IV.C.3.a.ii., IV.C.4.a.ii., and IV.C.5.a.ii. shall comply by purchasing an engine certified to the emission standards in Conditions IV.C.3.a.ii., IV.C.4.a.ii., and IV.C.5.a.ii., 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
EP ≥ 750	2008

[40 CFR 4211(c)]

iii. The Permittee of a pre-2007 model year stationary compression ignition internal combustion engine that is required to comply with the emission standards specified in Conditions IV.C.3.a.i, IV.C.4.a.i, IV.C.4.a.iii, IV.C.5.a.i and IV.C.6.a., shall demonstrate compliance according to one of the methods specified below:

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

(b) Keeping records of performance test results for each pollutant for a test conducted on a similar engine. The

test shall have been conducted using the methods specified in this 40 CFR 60.4212 or 4213, and the methods shall have been followed correctly.

- (c) Keeping records of engine manufacturer data indicating compliance with the standards.
- (d) Keeping records of control device vendor data indicating compliance with the standards.
- (e) Conducting an initial performance test to demonstrate compliance with the emission standards according to the requirements specified in 40 CFR 60.4212, as applicable.

[40 CFR 60.4211(b)]

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

[40 CFR 60.4211(b)]

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

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

[40 CFR 60.4211(d)]

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

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

d. Testing Requirements

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

- ii. The Permittee of an internal combustion engine with a displacement of greater than or equal to 30 liters per cylinder shall conduct performance tests according to 40 CFR 60.4213.
[40 CFR 60.4212 and 60.4213]

e. Permit Shield

Compliance with the conditions of this Part shall be deemed compliance with the following applicable requirements as of the issuance date of this permit: 40 CFR 60.4202(a) and (c), 60.4205(b), 60.4206, 60.4207(a) and (b), 60.4209(a), 60.4211(a), (b), (c), (d) and (e), 60.4212, and 60.4213.
[A.A.C. R18-2-325]

3. Particulate Matter

a. Emissions Limitations and Standards

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

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

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

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

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

	2009 and later	0.15
600 ≤ EP ≤ 750	2008 and earlier	0.40
	2009 and later	0.15
EP > 750	2007 and earlier	0.40
	2008 and later	0.15

[40 CFR 60. 4205(c)]

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

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

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

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

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

(a) Reduce PM emissions by 60% or more; or

(b) Limit the emissions of PM in the engine exhaust to 0.11 grams per horsepower-hour.

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

b. Monitoring and Record Keeping Requirements

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

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

ii. 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)]

iii. If the Permittee elects to meet the emission limitations contained in Condition IV.C.3.a.ii.(a) or (b), the Permittee shall maintain records, including manufacturer specifications, demonstrating that the engine meets the horsepower and RPM specifications.

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

c. Permit Shield

Compliance with the conditions of this Part shall be deemed compliance with the following applicable requirements as of the issuance date of this permit: 40 CFR 60.4204(a), 60.4204(c)(2), 60.4205(a), 60.4205(c), and 60.4205(d)(2).

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

4. Nitrogen Oxides

a. Emissions Limitations and Standards

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

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

* indicates nonmethane hydrocarbons (NMHC)+NO_x

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

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

Maximum Engine Power (EP) (horsepower)	Model year	Emissions Limit* (grams/horsepower-hour)
EP < 11	2010 and earlier	7.8
	2011 and later	5.6
11 ≤ EP < 25	2010 and earlier	7.1
	2011 and later	5.6
25 ≤ EP < 50	2010 and earlier	7.1
	2011 and later	5.6
50 ≤ EP < 75	2010 and earlier	7.8
	2011 and later	3.5
75 ≤ EP < 100	2010 and earlier	7.8
	2011 and later	3.5
100 ≤ EP < 175	2009 and earlier	7.8
	2010 and later	3.0
175 ≤ EP < 300	2008 and earlier	7.8
	2009 and later	3.0
300 ≤ EP < 600	2008 and earlier	7.8
	2009 and later	3.0
600 ≤ EP ≤ 750	2008 and earlier	7.8
	2009 and later	3.0
EP > 750	2007 and earlier	7.8
	2008 and later	4.8

* indicates NMHC+NO_x

[40 CFR 60.4205(c)]

- (a) For model years 2011 through 2013, fire pump engines that are greater than 50 horsepower, but less than 100 horsepower with a rated speed of greater than 2,650 revolutions per minute (rpm) may comply with the emission limitations for 2010 model year engines.
[Note 1 to Table 4 to 40 CFR Subpart III]
- (b) For model years 2010 through 2012, fire pump engines that are greater than 100 horsepower, but less than 175 horsepower with a rated speed of greater than 2,650 rpm may comply with the emission limitations for 2009 model year engines.
[Note 2 to Table 4 to 40 CFR Subpart III]
- iii. Pre-2007 model year internal combustion engines that have a displacement of greater than 10 liters per cylinder but less than 30 liters per cylinder that are not fire pump engines shall comply with the emission standards in 40 CFR 94.8(a)(1) as follows:
[40 CFR 60.4204(a) and 60.4205(a)]
 - (a) 17.0 g/kW-hr when the maximum test speed is less than 130 rpm.
 - (b) $45.0 \times N^{-0.20}$ g/kW-hr when the maximum test speed is at least 130 but less than 2000 rpm, where N is the maximum test speed of the engine in revolutions per minute.
 - (c) 9.8 g/kW-hr when the maximum test speed is 2000 rpm or more.
 - (d) All speed-dependent standards in this Part shall be rounded to the nearest 0.1 g/kW-hr.
- iv. Internal combustion engines with a displacement of greater than 30 liters per cylinder shall meet the following emission standards:
 - (a) Reduce NO_x emissions by 90% or more; or
 - (b) Limit the emissions of NO_x in the engine exhaust to 1.2 grams per horsepower-hour.
[40 CFR 60.4204(c)(1) and 60.4205(d)(1)]
- v. If the Permittee elects to meet the emission limitations contained in Condition IV.C.4.a.ii.(a) or (b), the Permittee shall maintain records, including manufacturer specifications, demonstrating that the engine meets the horsepower and RPM specifications.
[A.A.C. R18-2-306.A.4]

b. Permit Shield

Compliance with the conditions of this Part shall be deemed compliance with the following applicable requirements as of the issuance date of this permit: 40 CFR 60.4204(a), 60.4204(c)(1), 60.4205(a), 60.4205(c), and 60.4205(d)(1).

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

5. Carbon Monoxide

a. Emissions Limitations and Standards

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

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)]

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

Maximum Engine Power (EP) (horsepower)	Model year	Emissions Limit (grams/horsepower-hour)
EP < 11	2010 and earlier	6.0
	2011 and later	N/A
11 ≤ EP < 25	2010 and earlier	4.9
	2011 and later	N/A
25 ≤ EP < 50	2010 and earlier	4.1
	2011 and later	N/A
50 ≤ EP < 75	2010 and earlier	3.7
	2011 and later	N/A
75 ≤ EP < 100	2010 and earlier	3.7
	2011 and later	N/A
100 ≤ EP < 175	2009 and earlier	3.7
	2010 and later	N/A
175 ≤ EP < 300	2008 and earlier	2.6
	2009 and later	N/A
300 ≤ EP < 600	2008 and earlier	2.6
	2009 and later	N/A
600 ≤ EP ≤ 750	2008 and earlier	2.6
	2009 and later	N/A

EP > 750	2007 and earlier	2.6
	2008 and later	N/A

[40 CFR 60.4205(c)]

b. Permit Shield

Compliance with the conditions of this Part shall be deemed compliance with the following applicable requirements as of the issuance date of this permit: 40 CFR 60.4204(a), 60.4205(a) and 60.4205(c).

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

6. Hydrocarbons

a. Emissions Limitations and Standards

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

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

b. Permit Shield

Compliance with the conditions of this Part shall be deemed compliance with the following applicable requirements as of the issuance date of this permit: 40 CFR 60.4204(a) and 60.4205(a).

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

D. Spark-Ignition Engines Subject To NSPS Subpart JJJJ

1. Applicability

This Section applies to spark-ignition (SI) engines marked as subject to NSPS Subpart JJJJ on the associated ATO.

2. Operating Limitations

a. Engine Importation

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

[40 CFR 60.4236(a)]

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

[40 CFR 60.4236(b)]

- iii. For emergency stationary SI ICE with a maximum engine power of greater than 19 KW (25 HP), the Permittee shall not install an engine that do not meet the applicable requirements in 40 CFR 60.4233 after January 1, 2011. [40 CFR 60.4236(c)]
- iv. In addition to the requirements specified in 40 CFR 60.4231 and 60.4233, the Permittee shall not import any stationary SI ICE less than or equal to 19 KW (25 HP), stationary rich burn liquefied petroleum gas SI ICE, and stationary gasoline SI ICE that does not meet the applicable requirements specified in Conditions V.D.2.a.i, ii, and iii, after the date specified in such conditions. [40 CFR 60.4236(d)]
- v. The requirements of this section do not apply to stationary SI ICEs that have been removed from one existing location and reinstalled at a new location. [40 CFR 60.4236(e)]
- b. General Monitoring and Recordkeeping Requirements [A.A.C. R18-2-306.A.3.a]
 - i. The Permittee shall maintain a record of the fuel sulfur content and lower heating value of the fuel.
 - ii. The Permittee shall install a non-resettable hour meter on the SI ICE. [40 CFR 60.4237 and A.A.C. R18-2-331.A.3.c]

3. Emission Limitations

- a. The Permittee shall meet the emission standards in 40 CFR 60.4231(a) for any stationary SI ICE with a maximum engine power less than or equal to 19 KW (25 HP) manufactured on or after July 1, 2008 by purchasing an engine that is certified to the emission standards and other requirements for new non-road SI engines in 40 CFR part 90. [40 CFR 60.4233(a)]
- b. Owners and operators of stationary SI ICE with a maximum engine power greater than 19 KW (25 HP) manufactured on or after the applicable date in 40 CFR 60.4230(a)(4) that use gasoline must comply with the emission standards in 40 CFR 60.4231(b) for their stationary SI ICE. [40 CFR 60.4233(b)]
- c. For any stationary SI ICE with a maximum engine power greater than 19 KW (25 HP) manufactured on or after the applicable date in 40 CFR 60.4230(a)(4) that is a rich burn engine that uses liquefied petroleum gas, the Permittee must comply with the emission standards in 40 CFR 60.4231(c) for the stationary SI ICE. The Permittee shall comply with the emission standards in 40 CFR 60.4231(c) by purchasing an engine that is certified to the emission standards and other requirements for new

non-road SI engines included in 40 CFR 1048 or the Phase I emission standards and other requirements in 40 CFR 90.103 as applicable to the particular engine. The Permittee may purchase an SI ICE with a maximum engine power less than or equal to 40 HP with a total displacement less than or equal to 1000 cubic centimeters that is certified to the emission standards and other requirements for new non-road engines in 40 CFR 90. [40 CFR 60.4233(c)]

- d. For any stationary SI ICE with a maximum engine power greater than 19 KW (25 HP) and less than 75 KW (100 HP) (except gasoline and rich burn engines that use LPG) the Permittee must comply with the emission standards for field testing in 40 CFR 1048.101(c) for any non-emergency stationary SI ICE and with the emission standards in Table 1 of 40 CFR 60 Subpart JJJJ for any emergency stationary SI ICE. For any stationary SI ICE with a maximum engine power greater than 19 KW (25 HP) and less than 75 KW (100 HP) manufactured prior to January 1, 2011, that was certified to the standards in Table 1 of 40 CFR 60 Subpart JJJJ applicable to engines with a maximum engine power greater than or equal to 100 HP and less than 500 HP, the Permittee may optionally choose to meet those standards. [40 CFR 60.4233(d)]
- e. For any stationary SI ICE with a maximum engine power greater than or equal to 75 KW (100 HP) (except gasoline and rich burn engines that use LPG) the Permittee shall comply with the emission standards in Table 1 of 40 CFR 60 Subpart JJJJ for the stationary SI ICE by purchasing an engine that is certified to meet these standards. [40 CFR 60.4233(e)]
- f. The Permittee shall operate and maintain stationary the SI ICE to achieve the emission standards applicable to the SI ICE. [40 CFR 60.4234]

4. Compliance Demonstration Requirements [40 CFR 60.4243.a, b, d, e, f, and g]

- a. The Permittee shall comply with the emission limitations by purchasing an engine that is certified to the emission standards in 40 CFR 60.4231(a) through (f), as applicable. The Permittee shall also meet the requirements as specified in 40 CFR Part 1068, subparts A through D, as they apply.
- b. If the Permittee adjusts engine settings according to and consistent with the manufacturer's instructions, the stationary SI internal combustion engine will not be considered out of compliance.
- c. The Permittee shall meet one of the following requirements:
 - i. If the Permittee operates and maintains the certified stationary SI internal combustion engine and control device according to the manufacturer's emission-related written instructions, the Permittee shall keep records of conducted maintenance to demonstrate compliance, but no performance testing is required.

- ii. If the Permittee does not operate and maintain the certified stationary SI internal combustion engine and control device according to the manufacturer's emission-related written instructions, the engine will be considered a non-certified engine, and the Permittee must demonstrate compliance according to 40 CFR 60.4243(a)(2)(i) through (iii), as appropriate.
- d. If the Permittee is required to comply with the emission standards specified in 40 CFR 60.4233(d) or (e), the Permittee must demonstrate compliance according to one of the following methods:
 - i. Purchasing an engine certified according to procedures specified in 40 CFR 60 Subpart JJJJ, for the same model year and demonstrating compliance according to one of the methods specified in paragraph (i), above.
 - ii. Purchasing a non-certified engine and demonstrating compliance with the emission standards specified in 40 CFR 60.4233(d) or (e) and according to the requirements specified in 40 CFR 60.4244, as applicable, and according to paragraphs (b)(2)(i) and (ii) of 40 CFR 60.4243.
- e. Emergency stationary ICE may be operated for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by Federal, State or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours per year. There is no time limit on the use of emergency stationary ICE in emergency situations. The Permittee may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the Permittee maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency ICE beyond 100 hours per year. Emergency stationary ICE may operate up to 50 hours per year in non-emergency situations, but those 50 hours are counted towards the 100 hours per year provided for maintenance and testing. The 50 hours per year for non-emergency situations cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity. For emergency engines, any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year is prohibited.
- f. A stationary SI natural gas fired engines may operate using propane for a maximum of 100 hours per year as an alternative fuel solely during emergency operations, but the Permittee must keep records of such use. If propane is used for more than 100 hours per year in an engine that is not certified to the emission standards when using propane, the Permittee shall conduct a performance test to demonstrate compliance with the emission standards of 40 CFR 60.4233.

- g. For any stationary SI internal combustion engine that is less than or equal to 500 HP and is non-certified engine or is certified but has not been operated and maintained according to the manufacturer's written emission-related instructions, the Permittee shall perform initial performance testing as indicated in 40 CFR 60.4243. The Permittee is not required to conduct subsequent performance testing unless the stationary engine is rebuilt or undergoes major repair or maintenance. A rebuilt stationary SI ICE means an engine that has been rebuilt as that term is defined in 40 CFR 94.11(a).
- h. It is expected that air-to-fuel ratio controllers will be used with the operation of three-way catalysts/non-selective catalytic reduction. The AFR controller shall be maintained and operated appropriately in order to ensure proper operation of the engine and control device to minimize emissions at all times.
- i. For any stationary SI internal combustion engine with maximum engine power greater than or equal to 500 HP that is manufactured after July 1, 2007 and before July 1, 2008, and must comply with the emission standards specified in sections 60.4233(b) or (c), the Permittee shall comply by one of the following methods:
 - i. Purchasing an engine certified according to 40 CFR Part 1048. The engine shall be installed and configured according to the manufacturer's specifications.
 - ii. Keeping records of performance test results for each pollutant for a test conducted on a similar engine. The test must have been conducted using the same methods specified in this permit condition and these methods must have been followed correctly.
 - iii. Keeping records of engine manufacturer data indicating compliance with the standards.
 - iv. Keeping records of control device vendor data indicating compliance with the standards.

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

- a. The Permittee shall keep records of the following:
 - i. All notifications submitted to comply with this permit condition and all documentation supporting any notification.
 - ii. Maintenance conducted on the engine.
 - iii. If the stationary SI internal combustion engine is a certified engine, documentation from the manufacturer that the engine is certified to meet the emission standards and information as required in 40 CFR Parts 90 and 1048.

- iv. If the stationary SI internal combustion engine is not a certified engine or is a certified engine operating in a non-certified manner and subject to 40 CFR 60.4243(a)(2), documentation that the engine meets the emission standards.

- b. For all stationary SI emergency ICE greater than or equal to 500 HP manufactured on or after July 1, 2010, that do not meet the standards applicable to non-emergency engines, the Permittee shall keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. For all stationary SI emergency ICE greater than or equal to 130 HP and less than 500 HP manufactured on or after July 1, 2011 that do not meet the standards applicable to non-emergency engines, the Permittee shall keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. For all stationary SI emergency ICE greater than 25 HP and less than 130 HP manufactured on or after July 1, 2008, that do not meet the standards applicable to non-emergency engines, the Permittee shall keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The Permittee shall document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation.

- c. For any stationary SI ICE greater than or equal to 500 HP that has not been certified by an engine manufacturer to meet the emission standards in 40 CFR 60.4231 the Permittee shall submit an initial notification as required in 40 CFR 60.7(a)(1). The notification must include the following:
 - i. Name and address of the Permittee;
 - ii. The address of the affected source;
 - iii. Engine information including make, model, engine family, serial number, model year, maximum engine power, and engine displacement;
 - iv. Emission control equipment; and
 - v. Fuel used.

- d. If a performance test is required to be conducted, the Permittee shall submit a copy of each performance test as conducted in 40 CFR 60.4244 within 60 days after the test has been completed.

6. Performance Testing [40 CFR 60.4244]

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

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

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

E. Generators Not Subject to NSPS

1. Applicability

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

2. Particulate Matter and Opacity

a. Emission Limitations and Standards

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

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

where:

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

Q = the heat input in million Btu per hour.

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

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

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

iii. Opacity

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

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

b. Monitoring and Recordkeeping

i. A certified EPA Reference Method 9 observer shall 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 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 40%, the Permittee shall report this to the Director as an excess emission in accordance with Condition XII.A.1 of Attachment "A" 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]

ii. The Permittee shall keep records of fuel supplier certifications. The certification shall contain information regarding the name of fuel supplier and lower heating value of the fuel. These records shall be made available to ADEQ upon request.

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

c. Permit Shield

Compliance with this Part shall be deemed compliance with the following applicable requirements as of the issuance date of this permit: A.A.C. R18-2-719.C.1 and-719.E.

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

3. Sulfur Dioxide

a. Emission Limitations and Standards

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

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

ii. The Permittee shall not burn high sulfur diesel fuel (sulfur content greater than 0.9 % by weight) in the generator(s).

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

b. Monitoring, Recordkeeping, and Reporting

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

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

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

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

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

c. Permit Shield

Compliance with the conditions of this Part shall be deemed compliance with the following applicable requirements as of the issuance date of this permit: A.A.C. R18-2-719.F, -719.H, -719.I, and -719.J.

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

V. ETHYLENE OXIDE STERILIZERS

A. Applicability

This section applies to ethylene oxide sterilizers.

[40 CFR 63.10382]

B. Ethylene Oxide Requirements

1. Emission Standards and Limitations

The Permittee shall sterilize full loads of items having a common aeration time, except under medically necessary circumstances. Medically necessary means circumstances that a hospital central services staff, a hospital administrator, or a physician concludes, based on generally accepted medical practices, necessitate sterilizing without a full load in order to protect human health.

[40 CFR 63.10390 and 40 CFR 63.10448]

2. Compliance and Notification Requirements

- a. To demonstrate initial compliance with the standard in Condition V.B.1 of this Attachment, the Permittee shall submit an Initial Notification of Compliance Status upon startup or no later than 180 calendar days from December 29, 2008 whichever is later, certifying that the Permittee is sterilizing full loads of items having a common aeration time except under medically necessary circumstances.

[40 CFR 63.10400, 40 CFR 63.10402]

- b. The Initial Notification of Compliance Status above shall include the following information:

[40 CFR 63.10430(a)]

(1) The name and address of the Permittee.

(2) The address (i.e., physical location) of the affected source.

- (3) An identification of the standard and other applicable requirements in this Section that serve as the basis of the notification and the source's compliance date.
 - (4) A brief description of the sterilization facility, including the number of ethylene oxide sterilizers, the size (volume) of each, the number of aeration units, if any, the amount of annual ethylene oxide usage at the facility, the control technique used for each sterilizer, and typical number of sterilization cycles per year.
 - (5) A statement that the affected source is an area source.
- c. The Permittee shall submit the Initial Notification of Compliance Status to the Director. In addition, the Permittee shall submit a copy of the Initial Notification of Compliance Status to EPA's Office of Air Quality Planning and Standards. The notification can be sent via e-mail to *CCG-ONG@EPA.GOV* or via U.S. mail or other mail delivery service to U.S. EPA, Sector Policies and Programs Division, Coatings and Chemicals Group (E143-01), Attn: Hospital Sterilizers Project Leader, Research Triangle Park, NC 27711.
- [40 CFR 63.10430(b)]
- d. The Permittee shall demonstrate continuous compliance with the standard in Condition V.B.1 of this Attachment by recording the date and time of each sterilization cycle, whether each sterilization cycle contains a full load of items, and if not, a statement from a hospital central services staff, a hospital administrator, or a physician that it was medically necessary.
- [40 CFR 63.10420]

3. Recordkeeping Requirements

The Permittee shall maintain following records in a form suitable and readily available for expeditious review. These records shall be maintained for 5 years. These records must be kept onsite for at least 2 years after the date of each record. The Permittee may keep the records offsite for the remaining 3 years.

[40 CFR 63.10432 and 40 CFR 63.10434]

- a. A copy of the Initial Notification of Compliance Status submitted under Condition V.B.2.a of this Attachment.
- b. The records required by Condition V.B.2.d of this Attachment for the sterilization unit.

C. Permit Shield

Compliance with the conditions of this Section shall be deemed compliance with 40 CFR 63.10382, 40 CFR 63.10390, 40 CFR 63.10400, 40 CFR 63.10402, 40 CFR 63.10420, 40 CFR 63.10430(a), 40 CFR 63.10430(b), 40 CFR 63.10432, 40 CFR 63.10434 and 40 CFR 63.10448.

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

VI. FUGITIVE DUST REQUIREMENTS

A. Applicability

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

B. Particulate Matter and Opacity

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

a. Emission Limitations/Standards

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

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

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

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

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

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

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

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

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

(c) Keep dust and other particulates to a minimum by employing dust suppressants, temporary paving,

detouring, wetting down or by other reasonable means when a roadway is repaired, constructed, or reconstructed;

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

(d) Take reasonable precautions, such as wetting, applying dust suppressants, or covering the load when transporting material likely to give rise to airborne dust;

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

(e) Take reasonable precautions, such as the use of spray bars, wetting agents, dust suppressants, covering the load, and hoods when crushing, handling, or conveying material likely to give rise to airborne dust;

[A.A.C. R18-2-606]

(f) Take reasonable precautions such as chemical stabilization, wetting, or covering when organic or inorganic dust producing material is being stacked, piled, or otherwise stored;

[A.A.C. R18-2-607.A]

(g) Operate stacking and reclaiming machinery utilized at storage piles at all times with a minimum fall of material, or with the use of spray bars and wetting agents;

[A.A.C. R18-2-607.B]

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

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

b. Monitoring and Recordkeeping Requirements

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

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

c. Permit Shield

Compliance with the conditions of this Part shall be deemed compliance with the following applicable requirements as of the issuance date of this permit: 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 and A.A.C. R18-2-612.

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

VII. OTHER PERIODIC ACTIVITIES

A. Abrasive Blasting

Particulate Matter and Opacity

1. Emission Limitations/Standards

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

- i. Wet blasting;
- ii. Effective enclosures with necessary dust collecting equipment; or
- iii. Any other method approved by the Director.

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

b. Opacity

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

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

2. Monitoring and Recordkeeping Requirement

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

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

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

3. Permit Shield

Compliance with this Part shall be deemed compliance with the following applicable requirements as of the issuance date of this permit: A.A.C. R18-2-726 and A.A.C. R18-2-702.B.

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

B. Use of Paints

1. Volatile Organic Compounds

a. Emission Limitations/Standards

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

i. The Permittee shall not conduct or cause to be conducted any spray painting operation without minimizing organic solvent emissions. Such operations, other than architectural coating and spot painting, shall be conducted in an enclosed area equipped with controls containing no less than 96 percent of the overspray.
[A.A.C. R18-2-727.A]

ii. The Permittee or their designated contractor shall not either:

(a) Employ, apply, evaporate, or dry any architectural coating containing photochemically reactive solvents for industrial or commercial purposes; or

(b) Thin or dilute any architectural coating with a photochemically reactive solvent.
[A.A.C. R18-2-727.B]

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

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

(b) A combination of aromatic compounds with eight or more carbon atoms to the molecule except ethylbenzene: 8 percent.

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

iv. Whenever any organic solvent or any constituent of an organic solvent may be classified from its chemical structure into more than one of the groups of organic compounds described in Conditions VII.B.1.a.iii(a) through VII.B.1.a.iii(c) above, it shall be considered to be a member of the group having the least allowable percent of the total volume of solvents.
[A.A.C.R18-2-727.D]

b. Monitoring and Recordkeeping Requirements

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

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

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

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

c. Permit Shield

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

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

2. Opacity

a. Emission Limitation/Standard

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

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

b. Permit Shield

Compliance with the conditions of this Part shall be deemed compliance with the following applicable requirement as of the issuance date of this permit: A.A.C. R18-2-702.B.

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

C. Demolition/Renovation - Hazardous Air Pollutants

1. Emission Limitation/Standard

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

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

2. Monitoring and Recordkeeping Requirement

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

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

3. Permit Shield

Compliance with the conditions of this Part shall be deemed compliance with the following applicable requirement as of the issuance date of this permit: A.A.C. R18-2-1101.A.8.

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

DRAFT