
Draft Permit #72820

PLACE ID #2840

PERMITTEE: Apache Nitrogen Products Inc.
FACILITY: Apache Nitrogen Products Inc.
PERMIT TYPE Class I Air Quality Permit
DATE ISSUED: TBD
EXPIRY DATE: TBD

SUMMARY

This Class I air quality permit is issued to Apache Nitrogen Products Inc., the Permittee, for the continued operation of the their nitric acid, liquid ammonium nitrate, ammonium nitrate prill plants, and truck emulsion plant located in St. David in Cochise County. This permit renews and supersedes Permit #57484.

The facility is considered a major source because the nitric acid plant is a categorical source as per the Arizona Administrative Code (A.A.C.) R18-2-101.23 and the potential emissions of nitrogen oxides (NO_x), Particulate Matter less than ten microns (PM₁₀), and Particulate Matter less than 2.5 microns (PM_{2.5}) exceed the 100 tons per year major source threshold.

This permit is issued in accordance with Arizona Revised Statutes (ARS) 49-426. It contains requirements from Title 18, Chapter 2 of the A.A.C. and Title 40 of the Code of Federal Regulations. All definitions, terms, and conditions used in this permit conform to those in the Arizona Administrative Code R18-2-101 et. seq. (A.A.C.) and Title 40 of the Code of Federal Regulations (CFR), except as otherwise defined in this permit.

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ATTACHMENT "A": GENERAL PROVISIONS

I. PERMIT EXPIRATION AND RENEWAL

- A.** This permit is valid for a period of five (5) years from the date of issuance.
[ARS § 49-426.F, A.A.C. R18-2-306.A.1]
- B.** The Permittee shall submit an application for renewal of this permit at least six (6) months, but not more than eighteen (18) months, prior to the date of permit expiration.
[A.A.C. R18-2-304.D.2]

II. COMPLIANCE WITH PERMIT CONDITIONS

- A.** The Permittee shall comply with all conditions of this permit including all applicable requirements of the Arizona Revised Statutes (A.R.S.) Title 49, Chapter 3, and the air quality rules under Title 18, Chapter 2 of the Arizona Administrative Code. Any permit noncompliance is grounds for enforcement action; for permit termination, revocation and reissuance, revision; or for denial of a permit renewal application. In addition, noncompliance with any federally enforceable requirement constitutes a violation of the Clean Air Act.
[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 permit.
[A.A.C. R18-2-306.A.8.b]

III. PERMIT REVISION, REOPENING, REVOCATION AND REISSUANCE, OR TERMINATION FOR CAUSE

- A.** The permit may be revised, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a permit revision, revocation and reissuance, termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition.
[A.A.C. R18-2-306.A.8.c]
- B.** The permit shall be reopened and revised under any of the following circumstances:
1. Additional applicable requirements under the Clean Air Act become applicable to the Class I source. Such a reopening shall only occur if there are three or more years remaining in the permit term. The reopening shall be completed no later than 18 months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to A.A.C. R18-2-322.B. Any permit revision required pursuant to this subparagraph shall comply with the provisions in A.A.C. R18-2-322 for permit renewal and shall reset the five-year permit term;
[A.A.C. R18-2-321.A.1.a]
 2. Additional requirements, including excess emissions requirements, become applicable to an affected source under the acid rain program. Upon approval by

the Administrator, excess emissions offset plans shall be deemed to be incorporated into the Class I permit;

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

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; and

[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]

- C. Proceedings to reopen and issue a permit, including appeal of any final action relating to a permit reopening, shall follow the same procedures as apply to initial permit issuance and shall, except for reopenings under Condition III.B.1, affect only those parts of the permit for which cause to reopen exists. Such reopening shall be made as expeditiously as practicable. Permit reopenings for reasons other than those stated in Condition III.B.1 above shall not result in a resetting of the five-year permit term.

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

IV. POSTING OF PERMIT

- A. The Permittee shall post this permit or a certificate of permit issuance at the facility in such a manner as to be clearly visible and accessible. All equipment covered by this permit shall be clearly marked with one of the following:

1. Current permit number; or
2. Serial number or other equipment identification number (equipment ID number) that is also listed in the permit to identify that piece of equipment.

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

- B. A copy of the complete permit shall be kept on site.

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

V. FEE PAYMENT

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

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

VI. ANNUAL EMISSION 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 (90) days after the Director makes the inventory form available each year, whichever occurs later, and shall include emission information for the previous calendar year.

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

- 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.B.

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

VII. COMPLIANCE CERTIFICATION

- A.** The Permittee shall submit a compliance certification to the Director semiannually, which describes the compliance status of the source with respect to each permit condition. The first certification shall be submitted no later than May 15th, and shall report the compliance status of the source during the period between October 1st of the previous year and March 31st of the current year. The second certification shall be submitted no later than November 15th, and shall report the compliance status of the source during the period between April 1st and September 30th of the current year.

[A.A.C. R18-2-309.2.a]

- B.** The compliance certifications shall include the following:

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

[A.A.C. R18-2-309.2.c.i]

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

[A.A.C. R18-2-309.2c.ii]

3. 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 certifications shall identify each deviation (including any deviations reported pursuant to Condition XI.B of this Attachment) during the period covered by the certification and take it into account for consideration in the compliance certification;

[A.A.C. R18-2-309.2.c.iii]

4. For emission units subject to 40 CFR Part 64, the certification shall also identify as possible exceptions to compliance any period during which compliance is required and in which an excursion or exceedance defined under 40 CFR Part 64 occurred;

[A.A.C. R18-2-309.2.c.iii]

5. Other facts the Director may require to determine the compliance status of the source.

[A.A.C. R18-2-309.2.c.iv]

- C.** A copy of all compliance certifications shall also be submitted to the EPA Administrator.

[A.A.C. R18-2-309.2.d]

- D.** If any outstanding compliance schedule exists, a progress report shall be submitted with the semi-annual compliance certifications required in Condition VII.A above. The progress reports shall contain the information required by A.A.C. R18-2-309.5.d.

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

VIII. CERTIFICATION OF TRUTH, ACCURACY AND COMPLETENESS

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

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

IX. INSPECTION AND ENTRY

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

A. Enter upon the Permittee's premises where a source is located, emissions-related activity is conducted, or where records are required to be kept under the conditions of the permit;
[A.A.C. R18-2-309.4.a]

B. Have access to and copy, at reasonable times, any records that are required to be kept under the conditions of the permit;
[A.A.C. R18-2-309.4.b]

C. Inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit;
[A.A.C. R18-2-309.4.c]

D. Sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with the permit or other applicable requirements; and
[A.A.C. R18-2-309.4.d]

E. Record any inspection by use of written, electronic, magnetic and photographic media.
[A.A.C. R18-2-309.4.e]

X. 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 Part 68]

XI. EXCESS EMISSIONS, PERMIT DEVIATIONS, AND EMERGENCY REPORTING

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

1. Excess emissions shall be reported as follows:

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

(1) Notification by telephone or facsimile within 24 hours of the time when the Permittee first learned of the occurrence of excess

emissions including all available information from Condition XI.A.1.b below.

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

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

b. The report shall contain the following information:

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

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

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

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

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

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

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

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

- (5) Nature and cause of such emissions;

[A.A.C. R18-2-310.01.B.5]

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

[A.A.C. R18-2-310.01.B.6]

- (7) Steps that were or are being taken to limit the excess emissions; and

[A.A.C. R18-2-310.01.B.7]

- (8) If the excess emissions resulted from startup or malfunction, a list of the steps taken to comply with any permit procedures governing source operation during periods of startup or malfunction.

[A.A.C. R18-2-310.01.B.8]

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

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

B. Permit Deviations Reporting

The Permittee shall promptly report deviations from permit requirements, including those attributable to upset conditions as defined in the permit, the probable cause of such deviations, and any corrective actions or preventive measures taken. Where the applicable requirement contains a definition of prompt or otherwise specifies a timeframe for reporting deviations, that definition or timeframe shall govern. Where the applicable requirement does not address the timeframe for reporting deviations, the Permittee shall submit reports of deviations according to the following schedule:

1. Notice that complies with XI.A.1.a is prompt for deviations that constitute excess emissions;
[A.A.C. R18-2-306.A.5.b.i]
2. Notice that is submitted within two working days of discovery shall be considered prompt for deviations of permit conditions identified by Condition I.C.3 of Attachment “B”; and
[A.A.C. R18-2-306.A.5.b.ii]
3. Except as provided in Conditions XI.B.1 and 2 above, prompt notification of all other types of deviations shall be every 6-months, concurrent with the semi-annual compliance certifications required by Condition VII of Attachment “A”, and can be submitted via the “Annual/Semiannual Deviation and Monitoring Report” form available on the Arizona Department of Environmental Quality Website.
[A.A.C. R18-2-306.A.5.a]

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.
[A.A.C. R18-2-306.E.1]
2. An emergency constitutes an affirmative defense to an action brought for noncompliance with technology-based emission limitations if Condition XI.C.3 below is met.
[A.A.C. R18-2-306.E.2]
3. The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:
[A.A.C. R18-2-306.E.3]
 - a. An emergency occurred and that the Permittee can identify the cause(s) of the emergency;
[A.A.C. R18-2-306.E.3.a]

- b. The permitted facility was being properly operated at the time of the emergency;
[A.A.C. R18-2-306.E.3.b]
 - c. During the period of the emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards or other requirements in the permit; and
[A.A.C. R18-2-306.E.3.c]
 - d. The Permittee submitted notice of the emergency to the Director by certified mail, facsimile, or hand delivery within two working days of the time when emission limitations were exceeded due to the emergency. This notice shall contain a description of the emergency, any steps taken to mitigate emissions, and corrective action taken.
[A.A.C. R18-2-306.E.3.d]
- 4. In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
[A.A.C. R18-2-306.E.4]
 - 5. This provision is in addition to any emergency or upset provision contained in any applicable requirement.
[A.A.C. R18-2-306.E.5]

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

1. Applicability

A.A.C. R18-2-310 establishes affirmative defenses for certain emissions in excess of an emission standard or limitation and applies to all emission standards or limitations except for standards or limitations:

- a. Promulgated pursuant to Sections 111 or 112 of the Act;
[A.A.C. R18-2-310.A.1]
- b. Promulgated pursuant to Titles IV or VI of the Clean Air Act;
[A.A.C. R18-2-310.A.2]
- c. Contained in any Prevention of Significant Deterioration (PSD) or New Source Review (NSR) permit issued by the U.S. EPA;
[A.A.C. R18-2-310.A.3]
- d. Contained in A.A.C. R18-2-715.F; or
[A.A.C. R18-2-310.A.4]
- e. Included in a permit to meet the requirements of A.A.C. R18-2-406.A.5.
[A.A.C. R18-2-310.A.5]

2. Affirmative Defense for Malfunctions

Emissions in excess of an applicable emission limitation due to malfunction shall constitute a violation. When emissions in excess of an applicable emission

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

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

a. The excess emissions resulted from a sudden and unavoidable breakdown of process equipment or air pollution control equipment beyond the reasonable control of the Permittee;

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

b. The air pollution control equipment, process equipment, or processes were at all times maintained and operated in a manner consistent with good practice for minimizing emissions;

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

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

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

d. The amount and duration of the excess emissions (including any bypass operation) were minimized to the maximum extent practicable during periods of such emissions;

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

e. All reasonable steps were taken to minimize the impact of the excess emissions on ambient air quality;

[A.A.C. R18-2-310.B.5]

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

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

g. During the period of excess emissions there were no exceedances of the relevant ambient air quality standards established in Title 18, Chapter 2, Article 2 of the Arizona Administrative Code that could be attributed to the emitting source;

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

h. The excess emissions did not stem from any activity or event that could have been foreseen and avoided, or planned, and could not have been avoided by better operations and maintenance practices;

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

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

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

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

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

3. Affirmative Defense for Startup and Shutdown

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

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

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

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

- (2) If the excess emissions were the result of a bypass of control equipment, the bypass was unavoidable to prevent loss of life, personal injury, or severe damage to air pollution control equipment, production equipment, or other property;

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

- (3) The air pollution control equipment, process equipment, or processes were at all times maintained and operated in a manner consistent with good practice for minimizing emissions;

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

- (4) The amount and duration of the excess emissions (including any bypass operation) were minimized to the maximum extent practicable during periods of such emissions;

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

- (5) All reasonable steps were taken to minimize the impact of the excess emissions on ambient air quality;

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

- (6) During the period of excess emissions there were no exceedances of the relevant ambient air quality standards established in Title 18, Chapter 2, Article 2 of the Arizona Administrative Code that could be attributed to the emitting source;

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

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

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

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

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

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

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

4. Affirmative Defense for Malfunctions during Scheduled Maintenance

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

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

5. Demonstration of Reasonable and Practicable Measures

For an affirmative defense under Condition XI.D.2 or XI.D.3 above, the Permittee shall demonstrate, through submission of the data and information required by Condition XI.D 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.

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

XII. RECORDKEEPING REQUIREMENTS

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

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

1. The date, place as defined in the permit, and time of sampling or measurements;
[A.A.C. R18-2-306.A.4.a.i]
2. The date(s) any analyses were performed;
[A.A.C. R18-2-306.A.4.a.ii]
3. The name of the company or entity that performed the analyses;
[A.A.C. R18-2-306.A.4.a.iii]
4. A description of the analytical techniques or methods used;
[A.A.C. R18-2-306.A.4.a.iv]
5. The results of analyses; and
[A.A.C. R18-2-306.A.4.a.v]
6. The operating conditions as existing at the time of sampling or measurement.
[A.A.C. R18-2-306.A.4.a.vi]

- B.** The Permittee shall retain records of all required monitoring data and support information for a period of at least five (5) years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance

records and all original strip-chart recordings or other data recordings for continuous monitoring instrumentation, and copies of all reports required by the permit.

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

XIII. REPORTING REQUIREMENTS

The Permittee shall submit the following reports:

- A.** Compliance certifications in accordance with Condition VII above.
[A.A.C. R18-2-306.A.5.a]
- B.** Excess emission; permit deviation, and emergency reports in accordance with Condition XI above.
[A.A.C. R18-2-306.A.5.b]
- C.** Other reports required by any condition of Attachment “B.”

XIV. DUTY TO PROVIDE INFORMATION

- A.** The Permittee shall furnish to the Director, within a reasonable time, any information that the Director may request in writing to determine whether cause exists for revising, revoking and reissuing, or terminating the permit, or to determine compliance with the permit. Upon request, the Permittee shall also furnish to the Director copies of records required to be kept by the permit. For information claimed to be confidential, the Permittee shall furnish an additional copy of such records directly to the Administrator along with a claim of confidentiality.
[A.A.C. R18-2-304.G and -306.A.8.e]
- B.** If the Permittee has failed to submit any relevant facts or has submitted incorrect information in the permit application, the Permittee shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary facts or corrected information.
[A.A.C. R18-2-304.H]

XV. PERMIT AMENDMENT OR REVISION

The Permittee shall apply for a permit amendment or revision for changes to the facility which do not qualify for a facility change without revision under Condition XVI below, as follows:

- A.** Administrative Permit Amendment (A.A.C. R18-2-318);
[A.A.C. R18-2-318]
- B.** Minor Permit Revision (A.A.C. R18-2-319); and
[A.A.C. R18-2-319]
- C.** Significant Permit Revision (A.A.C. R18-2-320)
[A.A.C. R18-2-320]

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

XVI. FACILITY CHANGE WITHOUT A PERMIT REVISION

- A.** The Permittee may make changes that contravene an express permit term without a permit revision if all of the following apply:
- [A.A.C. R18-2-317]
1. The changes are not modifications under any provision of Title I of the Act or under ARS § 49-401.01(24);
[A.A.C. R18-2-317.A.1]
 2. The changes do not exceed the emissions allowable under the permit whether expressed therein as a rate of emissions or in terms of total emissions;
[A.A.C. R18-2-317.A.2]
 3. The changes do not violate any applicable requirements or trigger any additional applicable requirements;
[A.A.C. R18-2-317.A.3]
 4. The changes satisfy all requirements for a minor permit revision under A.A.C. R18-2-319.A;
[A.A.C. R18-2-317.A.4]
 5. The changes do not contravene federally enforceable permit terms and conditions that are monitoring (including test methods), record keeping, reporting, or compliance certification requirements; and
[A.A.C. R18-2-317.A.5]
 6. The changes do not constitute a minor NSR modification.
[A.A.C. R18-2-317.A.6]
- B.** The substitution of an item of process or pollution control equipment for an identical or substantially similar item of process or pollution control equipment shall qualify as a change that does not require a permit revision, if it meets all of the requirements of Conditions XVI.A, C, and D.
[A.A.C. R18-2-317.B]
- C.** For each change under Conditions XVI.A and XVI.B above, a written notice by certified mail or hand delivery shall be received by the Director and the Administrator a minimum of 7 working days in advance of the change. Notifications of changes associated with emergency conditions, such as malfunctions necessitating the replacement of equipment, may be provided less than 7 working days in advance of the change, but must be provided as far in advance of the change, as possible or, if advance notification is not practicable, as soon after the change as possible.
[A.A.C. R18-2-317.D]
- D.** Each notification shall include:
1. When the proposed change will occur;
[A.A.C. R18-2-317.E.1]
 2. A description of the change;
[A.A.C. R18-2-317.E.2]
 3. Any change in emissions of regulated air pollutants; and

[A.A.C. R18-2-317.E.3]

4. Any permit term or condition that is no longer applicable as a result of the change.
[A.A.C. R18-2-317.E.7]

- E.** The permit shield described in A.A.C. R18-2-325 shall not apply to any change made under this Section XVI.
[A.A.C. R18-2-317.F]

- F.** Except as otherwise provided for in the permit, making a change from one alternative operating scenario to another as provided under A.A.C. R18-2-306.A.11 shall not require any prior notice under Section XVI.
[A.A.C. R18-2-317.G]

- G.** Notwithstanding any other part of Section XVI, 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 Section XVI over the term of the permit, do not satisfy Condition XVI.A above.
[A.A.C. R18-2-317.H]

XVII. TESTING REQUIREMENTS

- A.** Except as provided in Condition XVII.F below, the Permittee shall conduct performance tests as specified in the permit and at such other times as may be required by the Director.
[A.A.C. R18-2-312.A]

- B.** Operational Conditions during Performance Testing

Performance tests shall be conducted under such conditions as the Director shall specify to the plant operator based on representative performance of the source. The Permittee shall make available to the Director such records as may be necessary to determine the conditions of the performance tests. Operations during periods of start-up, shutdown, and malfunction (as defined in A.A.C. R18-2-101) shall not constitute representative conditions of performance tests unless otherwise specified in the applicable standard.

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

- C.** Performance 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.

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

- D.** Test Plan

At least 14 working days prior to performing a test, the Permittee shall submit a test plan to the Director, which must include the following, in addition to all other applicable requirements, as identified in the Arizona Testing Manual:

1. Test duration;
2. Test location(s);
3. Test method(s); and

4. Source operation and other parameters that may affect test results.

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

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.

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

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.

[A.A.C. R18-2-312.F and A.A.C. R18-2-306.A.3c]

G. Report of Final Test Results

A written report of the results of performance tests conducted pursuant to 40 CFR 63, shall be submitted to the Director within 60 days after the test is performed. A written report of the results of all other performance tests shall be submitted within four weeks after the completion of the testing, as specified in the Arizona Testing Manual. All performance testing reports shall be submitted in accordance with the Arizona Testing Manual and A.A.C. R18-2-312.A.

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

H. Extension of Performance Test Deadline

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

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

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

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

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

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

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

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

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

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

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

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

XVIII. PROPERTY RIGHTS

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

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

XIX. SEVERABILITY CLAUSE

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

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

XX. PERMIT SHIELD

Compliance with the conditions of this permit shall be deemed compliance with all applicable requirements identified in the portions of this permit subtitled "Permit Shield." The permit shield shall not apply to minor revisions pursuant to Condition XV.B of this Attachment and any facility changes without a permit revision pursuant to Condition XVI of this Attachment.

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

XXI. PROTECTION OF STRATOSPHERIC OZONE

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

[40 CFR Part 82]

XXII. APPLICABILITY OF NSPS/NESHAP GENERAL PROVISIONS

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

[A.A.C. R18-2-901.1 and 1101.A.1, 40 CFR Part 60, Subpart A and Part 63, Subpart A]

ATTACHMENT “B”: SPECIFIC CONDITIONS

I. FACILITY-WIDE REQUIREMENTS

A. Opacity

1. Instantaneous Surveys and Six-Minute Observations

- a. Any instantaneous survey or six minute observation required by this permit shall be determined by an EPA Reference Method 9 Certified Observer.

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

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

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

2. Monitoring, Recordkeeping, and Reporting Requirements

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

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

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

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

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

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

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

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

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

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

B. Operation and Maintenance

The Permittee shall operate and maintain all equipment identified in Attachment “C” in accordance with vendor-supplied operations and maintenance instructions. If vendor-supplied operations and maintenance instructions are not available, or at the Permittee’s election, the Permittee shall prepare an Operation and Maintenance Plan, which provides adequate information to properly operate and maintain equipment in good working order. The Permittee shall operate and maintain the equipment in accordance with the Operation and Maintenance Plan.

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

C. Monitoring, Recordkeeping and Reporting Requirements

1. The Permittee shall maintain, on-site, records of the manufacturer's specifications or Operation and Maintenance Plan for minimizing emissions for all process and control equipment listed in Attachment “C”.

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

2. The Permittee shall submit reports of all monitoring activities required in Attachment “B” along with the compliance certifications required by Condition VII of Attachment “A”. All instances of deviations from the requirements of the Permit shall be clearly identified in the reports.

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

3. Deviations from the following Attachment “B” permit conditions shall be promptly reported in accordance with Condition XI.B.2 of Attachment “A”:

- a. Condition II.B.2.a;
- b. Condition II.C.2.a and b;
- c. Condition II.C.3.a(1);
- d. Condition II.C.3.b;
- e. Condition III.B.2; and
- f. Condition XI.D.2.a and b;

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

D. General Requirements for Compliance Assurance Monitoring (CAM)

The Permittee shall meet the following requirements for any applicable equipment in this Attachment that is subject to CAM requirements.

1. Except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable,

calibration checks and required zero and span adjustments), the Permittee shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the pollutant-specific emissions unit are operating. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of this part, including data averages and calculations, or fulfilling a minimum data availability requirement, if applicable. The Permittee shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.

[40 CFR 64.7(c)]

2. Response to excursions

a. Upon detecting an excursion or exceedance, the Permittee shall restore operation of the pollutant-specific emissions unit (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown, or malfunction, and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as through response by a computerized distribution control system), or any necessary follow-up actions to return operations to within the indicator range, designated condition, or below applicable emission limitation or standard, as applicable.

[40 CFR 64.7(d)(1)]

b. Determination of whether the Permittee has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include but is not limited to, monitoring results, review of operation, and maintenance procedures and records, and inspection of the control device, associated capture system, and process.

[40 CFR 64.7(d)(2)]

3. After approval of monitoring under this part, if the Permittee identifies a failure to achieve compliance with an emission limitation or standard for which the approved monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing indicator ranges or designated conditions, the Permittee shall promptly notify the Department, and if necessary, submit a proposed modification to this permit to address the necessary monitoring changes. Such a modification may include, but is not limited to, re-establishing indicator ranges or designated conditions, modifying the frequency of conduction monitoring and collecting data, or the monitoring of additional parameters.

[40 CFR 64.7(e)]

4. Excursions shall be reported as required by Condition VII.A of Attachment "A" of this permit. The report shall include, at a minimum, the following:

[A.A.C. R18-2-309(2)(c)(iii)]

- a. Summary information on the number, duration and cause (including unknown cause, if applicable) of excursion or exceedances, as applicable, and the corrective actions taken; and

[40 CFR 64.9(a) (2)(i)]

- b. Summary information on the number, duration and cause (including unknown cause, if applicable) for monitoring downtime incidents (other than downtime associated with zero and span or other daily calibration checks, if applicable).

[40 CFR 64.9(a) (2)(ii)]

II. NITRIC ACID PRODUCTION UNITS (COVERED BY NEW SOURCE PERFORMANCE STANDARDS)

A. Applicability

This Section applies to the nitric acid production facilities- Ammonia Oxidation Process No. 3 (AOP-3) and Ammonia Oxidation Process No. 4 (AOP-4).

B. Opacity

1. Emission Limitations/Standards

At all times except for periods of startup, shutdown, and malfunction as defined in 40 CFR 60.2, the Permittee shall not cause or allow to be discharged into the atmosphere from AOP-3 or AOP-4 any gases which exhibit 10 percent opacity, or greater. Opacity readings of portions of plumes which contain condensed, uncombined water vapor shall not be used for purposes of determining compliance with the opacity standard.

[40 CFR 60.72(a)(2), 60.11(c), 60.11(e)(1) and A.A.C. R18-2-331.A.3.f]

[Material permit conditions are indicated by underline and italics]

2. Monitoring, Recordkeeping and Reporting Requirements

- a. *The Permittee shall calibrate, maintain and operate the continuous opacity monitoring systems (COMS) on AOP-3 and AOP-4 to monitor and record opacity of the exhaust gases. The span of the systems shall be set at 80 to 100 percent opacity.*

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

[Material permit conditions are indicated by underline and italics]

- b. The COMS shall comply with the requirements and procedures contained in 40 CFR Part 60, Appendix B Performance Specification 1.

[A.A.C. R18-2-A9.3.1]

- c. The Permittee shall check the zero and span drift at least once daily in accordance with the method prescribed by the manufacturer of such systems unless the manufacturer recommends adjustments at shorter intervals, in which case such recommendations shall be followed. The zero and span shall, as a minimum, be adjusted whenever the 24-hour zero drift or the 24-hour span drift exceeds 2% opacity. The optical surfaces exposed to the effluent gases shall be cleaned prior to performing the zero or span drift adjustments except that for systems using automatic zero adjustments, the optical surfaces shall be cleaned when the cumulative automatic zero compensation exceeds 4% opacity. Unless otherwise approved by the Director, the minimum procedures shall include a method for producing a simulated zero opacity condition and an upscale (span) opacity condition using a certified neutral density filter or other related technique to produce a known obscuration of the light beam. Such procedures shall provide a system check of the analyzer internal optical surfaces and all electronic circuitry including the lamp and photodetector assembly.

[A.A.C. R18-2-A9.4]

- d. Except for system breakdowns, repairs, calibration checks, and zero and span adjustments required under Condition II.B.2.c above, the COMS shall be in continuous operation and shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 10-second period.

[A.A.C. R18-2-A9.5.1]

- e. The Permittee shall reduce all data from COMS to six-minute averages. Six-minute opacity averages shall be calculated from 24 or more data points equally spaced over each six-minute period. Data recorded during periods of system breakdowns, repairs, calibration checks, and zero and span adjustments shall not be included in the data averages computed. An arithmetic or integrated average of all data may be used.

[A.A.C. R18-2-A9.8]

3. Excess Emissions

Except during periods of startup, shutdown, and malfunction, any 6-minute continuous period during which the average opacity, as measured by the COMS, exceeds 10% opacity, shall be reported as excess emissions.

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

4. Permit Shield

Compliance with the conditions of Condition II.B shall be deemed compliance with 40 CFR 60.72(a)(2).

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

C. Nitrogen Oxides (NO_x)

1. Emission Limitation and Standards

- a. The Permittee shall not cause or allow to be discharged into the atmosphere from AOP-3 or AOP-4 any gases, which contain nitrogen oxides (NO_x), expressed as nitrogen dioxide (NO₂), in excess of 1.5 kg per metric ton of acid produced (3.0 lb per ton), the production being expressed as 100 percent nitric acid.

[40 CFR 60.72(a)(1)]

- b. The Permittee shall not cause or allow to be discharged into the atmosphere from AOP-3 any gases which contain NO_x, expressed as NO₂, in excess of 37.67 tons per year. Compliance with the emission limits shall be based on a 365-day rolling total calculated at the end of each day as determined by the NO_x Continuous Emission Rate Monitoring System (CERMS) prescribed under Condition 3.a(1)II.C.3.a(1) and Condition II.C.3.b of this Attachment.

[Installation Permit 1229 Conditions XII.B.3
and XII.B.4.a, A.A.C. R18-2-331.A.3.a]

[Material permit conditions are indicated by underline and italics]

2. Air Pollution Control Requirements

- a. The Permittee shall, to the extent practicable, utilize hydrogen peroxide injection during startups of AOP-3 or AOP-4 in a manner consistent with good air pollution control practices for minimizing nitrogen oxide emissions during startup. The determination of whether acceptable operating procedures are being used will be based on information available to the Director, which may include, but is not limited to, review of operating procedures and inspection of the source.

[40 CFR 60.11(d), A.A.C. R18-2-306.A.2 and A.A.C. R18-2-331.A.3.e]

[Material permit conditions are indicated by underline and italics]

- b. The Permittee shall, to the extent practicable, operate and maintain the Selective Catalytic Reduction (SCR) system installed at the AOP-3 tail gas system to control nitrogen oxide emissions before venting the tail gas to the atmosphere in a manner consistent with good air pollution control practices.

[40 CFR 60.11(d), A.A.C. R18-2-331.A.3.e, A.A.C. R18-2-306.A.2]

[Material permit conditions are indicated by underline and italics]

3. Monitoring, Record keeping and Reporting Requirements

- a. Continuous Emission Monitoring System (CEMS) for AOP-3 and AOP-4

- (1) The Permittee shall, to the extent practicable, calibrate, maintain and operate the CEMS installed on AOP-3 and AOP-4 for measuring exhaust gas nitrogen oxides (NO_x). The span value of the systems shall be 500 ppm of NO₂. The systems shall meet the performance specification set forth under 40 CFR Part 60, Appendix B, "Performance Specification 2 - Specifications and Test Procedures for SO₂ and NO_x Continuous Emission Monitoring Systems in Stationary Sources". The pollutant gas

mixtures under the Performance Specification 2 and for calibration checks shall be NO₂.

[40 CFR 60.13(a) and 60.73(a), A.A.C. R18-2-331.A.3.c]

[Material permit conditions are indicated by underline and italics]

(2) The NO_x CEMS shall comply with the following quality control requirements:

(a) Calibration drift checks

The Permittee shall check the zero (or low-level value between 0 and 20% of span value) and span (50 to 100 percent of span value) calibration drifts (CD) at least once daily in accordance with a written procedure prescribed by the manufacturer.

[40 CFR 60.13(d)(1)]

(b) Zero and span drift adjustments

(i) The zero and span shall, as a minimum, be adjusted whenever the 24-hr zero drift or 24-hr span drift exceeds 25 ppm.

[40 CFR 60.13(d)(1)]

(ii) The CEMS shall allow for the amount of excess zero and span drift measured at the 24-hour interval checks to be recorded and quantified.

[40 CFR 60.13(d)(1)]

(c) Minimum frequency of operation

Except during periods of system breakdowns, repairs, calibration checks, and zero and span adjustments, the CEMS shall be in continuous operation and shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period.

[40 CFR 60.13(e)(2)]

(d) Data reduction procedures

(i) The Permittee shall reduce all data from the CEMS to 1-hour averages. The 1-hour averages shall be computed from four or more data points equally spaced over each 1-hour period.

[40 CFR 60.13(h)(2)]

(ii) Data recorded during periods of system breakdowns, repairs, calibration checks, and zero and span adjustments shall not be included in the data averages computed under the previous

paragraph. An arithmetic or integrated average of all data may be used. The data may be recorded in reduced or non-reduced form.

[40 CFR 60.13(h)]

- (iii) The Permittee shall establish a conversion factor for the purpose of converting monitoring data into units of the applicable standard (kg/metric ton, lb/ton). The conversion factor shall be established by measuring emissions with the continuous monitoring system concurrent with measuring emissions with the applicable reference method tests. Using only that portion of the continuous monitoring emission data that represents emission measurements concurrent with the reference method test periods, the conversion factor shall be determined by dividing the reference method test data averages by the monitoring data averages to obtain a ratio expressed in units of the applicable standard to units of the monitoring data, i.e., kg/metric ton per ppm (lb/ton per ppm). The Permittee shall reestablish the conversion factor during any performance test under 40 CFR 60.8 or any continuous monitoring system performance evaluation under 40 CFR 60.13(c).

[40 CFR 60.73(b)]

- b. Continuous Emission Rate Monitoring System (CERMS) for AOP-3

The Permittee shall calibrate, maintain and operate the flow monitor installed at the AOP-3 discharge stack to measure volumetric flow rates of the exhaust gas. The flow monitor shall meet the performance specification set forth under 40 CFR Part 60, Appendix B, "Performance Specification 6 - Specifications and Test Procedures for Continuous Emission Rate Monitoring Systems in Stationary Sources" Performance and Equipment Specifications.

[Installation Permit No. 1229-Condition XII.F.1.b, A.A.C. R18-2-331.A.3.c]

[Material permit conditions are indicated by underline and italics]

- c. The Permittee shall conduct or cause to be conducted, quality assurance procedures on the CEMS in accordance with the methods specified in 40 CFR Part 60, Appendix F.

[A.A.C. R18-2-306.01, A.A.C. R18-2-331.A.3.c, and 40 CFR 60.13(a)]

[Material permit conditions are identified by underline and italics]

- d. The Permittee shall record the daily production, expressed as 100 percent nitric acid, and hours of operation for each nitric acid plant.

[40 CFR 60.73(c)]

- e. The Permittee shall submit an excess emissions and monitoring systems performance (EEMSP) report to the Director semiannually in accordance with 40 CFR 60.7(c). Excess emissions shall be reported for all periods of operation including startup, shutdown, and malfunction. Periods of excess emissions that shall be reported are defined as follows:

[40 CFR 60.70(c) and A.A.C R18-2-306.A.3.c]

- (1) Any 3-hour period during which the average nitrogen oxides emissions (arithmetic average of three contiguous 1-hr periods) for AOP-3 and AOP-4, as measured by CEMS, exceeds the emission limitation in Condition II.C.1.a above.

[40 CFR 60.73(e)]

- (2) Any 365-day rolling total calculated at the end of every day in tons per year for AOP-3, as determined by the NO_x continuous emission rate monitoring system (CERMS), exceeds the emission limitation in Condition II.C.1.b above.

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

4. Permit Shield

Compliance with the conditions of Condition II.C shall be deemed compliance with the requirements of 40 CFR 60.70(c), 40 CFR 60.72(a)(1), 40 CFR 60.73(a), 40 CFR 60.73(b), 40 CFR 60.73(c), and 40 CFR 60.73(e) and Installation Permit 1229 Conditions XII.F.1.b, XII.B.3 and XII.B.4.a .

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

III. AMMONIUM NITRATE SOLUTION PLANT

A. Applicability

This Section is applicable to the Ammonium Nitrate Solutions (ANS) Plant, which consists of the ammonium nitrate neutralizer, wet scrubber and associated equipment.

B. Particulate Matter and Opacity

1. Emissions Limits and Standard

- a. The Permittee shall not cause or allow to be discharged into the atmosphere the particulate matter in any one hour from the neutralizer in total quantities in excess of the amounts calculated by the following equation and rounded off to two decimal places:

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

Where:

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

P = The process weight rate in tons-mass per hour, which shall be the total weight of nitric acid solution and ammonia introduced into the Liquid Ammonium Nitrate Plant for the entire period of continuous operation of the plant or for a typical portion thereof, divided by the number of hours of such period or portion thereof.

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

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

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

2. Air Pollution Control Requirements

The Permittee shall maintain and operate a high efficiency wet scrubber on the neutralizer exhaust gases to remove ammonia and ammonium nitrate (expressed as particulate matter) from the neutralizer exhaust gases.

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

[Material permit conditions are indicated by underline and italics]

3. Compliance Assurance Monitoring for Particulate Matter

a. Indicator

The Permittee shall, to the extent practicable, calibrate, maintain and operate a monitoring device for the continuous measurement of the scrubbing liquid flow rate to the venturi portion of the wet scrubber. The monitoring device shall be certified by the manufacturer to be accurate within ±5 percent of the design scrubbing liquid flow rate and shall be calibrated on an annual basis in accordance with the manufacturer's instructions.

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

[Material permit conditions are indicated by underline and italics]

b. Monitoring Approach

- (1) The Permittee shall continuously record scrubber liquid flow rate, and maintain records of hourly average values of continuous measurements.

[A.A.C. R18-2-306.A.3.a.i and b]

- (2) The Permittee shall perform semi-annual and annual inspection and maintenance on the neutralizer reactor and the two-stage scrubber as described below. These shall include but not limited to:

[A.A.C. R18-2-306.A.3.a.i and b]

- (a) Semi-annual inspection of the sprayer nozzles at the venturi portion and within the packed bed portion of the two-stage scrubber and replacement of nozzles, if necessary.
 - (b) Semi-annual inspection of the two ammonia spargers located at the bottom of the neutralizer reactor vessel and replacement of spargers, if necessary.
 - (c) Annual inspection of the one acid sparger at the bottom of the neutralizer reactor vessel and the four trim spargers at the top of the neutralizer reactor vessel and replacement of spargers, if necessary.
 - (d) Semi-annual inspection of the neutralizer blow down tank (11E1301) for proper operation and drainage, and repair as necessary.
- (3) The Permittee shall maintain records of the semi-annual inspections, observations and corrective actions taken as a result of these inspections.

[A.A.C. R18-2-306.A.3.a.i and b]

c. Excursion Determination

- (1) Scrubber flow rate to the venturi portion of the wet scrubber that is greater than ± 30 percent beyond the averages obtained in the most recent performance test established in Condition **Error! Reference source not found.** of this Attachment shall be considered an excursion.
- (2) Failure to perform the annual and semi-annual inspections and maintain records of the inspections under Condition III.B.3.b(2) and Condition III.B.3.b(3), respectively, shall be considered an excursion.

[A.A.C. R18-2-306.A.3.a.i and b]

[A.A.C. R18-2-306.A.3.a.i and b]

- d. In addition to the requirement under Condition III.B.3.a through Condition III.B.3.c above, the Permittee shall comply with all requirements under Condition I.D of this Attachment.

[A.A.C. R18-2-306.A.3.a.i and b]

4. Monitoring, Recordkeeping and Reporting Requirements

The Permittee shall conduct monthly opacity monitoring at the Neutralizer stack in accordance with Condition I.A of this Attachment.

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

5. Permit Shield

Compliance with the requirements of Condition III.B shall be deemed compliance with the requirement(s) of A.A.C. R18-2-702.B, 702.C, and 730.A.1.a.

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

C. Odor Control

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

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

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

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

3. Air Quality Control Requirements

In addition to operation and maintenance of the wet scrubber prescribed in Condition III.B.2 of this Section, The Permittee shall, as practicable, operate and maintain the Neutralizer in a manner consistent with good air pollution control practices to minimize odors associated with the ammonia emissions..

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

4. Permit Shield

Compliance with the requirements in Condition III.C shall be deemed compliance with the requirements of A.A.C R18-2-730.D, and A.A.C. R18-730.G.

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

IV. AMMONIUM NITRATE PRILL PLANT

A. Applicability

This Section applies to the Ammonium Nitrate Prill Plant (Prill Plant), which consists of the following affected equipment:

1. Falling Film Evaporator # 3
2. Prill Tower
3. Prill Plant Rotary Pre-dryer
4. Prill Plant Dryer
5. Fluidized Bed Cooler
6. Ammonium Nitrate (AN) Reclaim Unit

7. Rotex Vibrating Screen
8. Coating Drum
9. Product Storage Barns #1 and #2;
10. All Material Conveying Equipment (Belts and Conveyors)
11. Transloader at Prill Storage Barns

B. Particulate Matter and Opacity

1. The Permittee shall not cause or allow to be discharged into the atmosphere, particulate matter in any one hour in total quantities from the prill plant as defined in Condition IV.A above in excess of amounts calculated by the following equations:

- a. For process sources having a process weight rate of 60,000 pounds per hour (30 tons per hour) or less:

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

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

E = The maximum allowable particulate emissions rate in pounds-mass per hour for the prill production, or transloading process.

P = The process weight rate in tons-mass per hour, which shall be the total weight of ammonium nitrate solution introduced into the prill plant for the entire period of continuous operation of the plant or for a typical portion thereof, divided by the number of hours of such period or portion thereof; or, the total weight of prilled ammonium nitrate transloaded divided by the number of hours of such period or portion thereof.

- b. For process weight rates greater than 60,000 pounds per hour (30 tons per hour):

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

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

Where E and P are as defined in Condition IV.B.1.a above.

- c. For purposes of this Section, the total process weight from all similar units employing a similar type process shall be used in determining the maximum allowable emission of particulate matter.

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

- d. The Permittee shall not cause or allow to be discharged into the atmosphere any plume or effluent from any of the affected equipment under this Section, opacity of which is greater than 20% as determined by

EPA Reference Method 9. If the presence of uncombined water is the only reason for the exceedance of this opacity standard, such exceedance shall not constitute a violation.

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

2. Air Pollution Control Requirements

- a. *The Permittee shall use a boot-lift connector during transloading of prill from the rail car discharge to the under-track hopper to minimize particulate matter emissions.*

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

[Material permit conditions are indicated by underline and italics]

- b. *The Permittee shall lower the flexible chute flush with the truck's loading port during loading of trucks with prill to minimize particulate matter emissions.*

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

[Material permit conditions are indicated by underline and italics]

3. Monitoring, Recordkeeping and Reporting Requirements

The Permittee shall conduct a bi-weekly opacity monitoring of the prill tower stack and the ammonium nitrate reclaim unit in accordance with I.A of this Attachment.

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

4. Performance Test Requirements

[A.A.C. R18-2-306.A.3, 312.A and 312.B]

a. Testing Frequency

- (1) Within 180 days of permit issuance, the Permittee shall conduct a performance test on the exhaust stacks of the prill tower to demonstrate compliance with the particulate matter and opacity standards in Condition IV.B.

- (a) If the results of the performance test indicate the emission rate is greater than 50% of the emission standard in Condition IV.B.1 above, the Permittee shall conduct subsequent performance tests for PM within 11 to 13 months of the previous test.

- (b) If the results of the performance test indicate the emission rates are less than or equal to 50% of the emission standards in Condition IV.B.1 above, no subsequent performance tests shall be required for the permit term.

- (2) If a performance test on the prill tower is conducted within 90 days of permit issuance, the results of the test shall be used to comply with the testing requirement in Condition IV.B.4.a(1) above.

b. Testing Methods

Performance tests shall be conducted and data reduced in accordance with the following test methods:

- (1) EPA Reference Method 9 shall be used to determine the opacity of visible emissions.
- (2) EPA Reference Method 5 shall be used to determine the particulate matter emission rates.
- (3) For the purpose of demonstrating compliance with Condition IV.B.1.a and Condition IV.B.1.b of this Section, the Permittee shall measure and record the process weight rates in pounds-mass per hour for the ammonium nitrate solution introduced into the Prill Plant during the performance test.
- (4) The Permittee shall interpret data and report the final results of each performance test in accordance with Condition XVII, Attachment "A" of the Permit.

5. Permit Shield

Compliance with the requirements of Section IV shall be deemed compliance with A.A.C. R18-2-702 and A.A.C. R18-2-730.

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

V. BOILERS AND AOP-4 SUPERHEATER

A. Applicability

This Section applies to the following equipment:

1. Process Steam Boiler #1
2. Process Steam Boiler #2
3. Process Steam Boiler #3
4. AOP-4 Steam Super Heater

B. Fuel Limitation

The Permittee shall only burn natural gas in all the boilers and the super heater listed above.

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

C. Particulate Matter and Opacity

1. Emissions Limitations and Standards

- a. The Permittee shall not cause, allow or permit the emission of particulate matter, caused by combustion of fuel, from any fuel-burning operation into

the atmosphere in excess of the amounts calculated by the following equation:

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

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

Where:

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

Q = the heat input in million Btu per hour.

- b. For purposes of this Section, the heat input, Q, 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 fuel-burning units on a plant or premises shall be used for determining the maximum allowable amount of particulate matter, which may be emitted.

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

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

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

2. Monitoring, Recordkeeping, and Reporting Requirements

- a. The Permittee shall conduct a quarterly (once every three months) opacity monitoring of the stacks of all the boilers and super heater in accordance with I.A of this Attachment.

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

- b. The Permittee shall keep records of fuel used in all the boilers and superheater. 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 requirements of Section V shall be deemed compliance with A.A.C. R18-2-724.B, A.A.C R18-2-724.C.1, and A.A.C R18-2-724.J.

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

VI. EXISTING INTERNAL COMBUSTION ENGINE REQUIREMENTS

A. Applicability

This Section applies to the following stationary rotating machineries subject to 40 CFR 63 Subpart ZZZZ:

1. Natural gas-fired 830-hp Empire Power G399 emergency generator
2. Diesel-fired 350-hp emergency air compressor

B. Fuel Limitations

1. The Permittee shall only fire low sulfur diesel (less than 0.9 percent by weight of sulfur) fuel in the 350-hp diesel-fired air compressor.

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

2. The Permittee shall only fire natural gas in the 830-hp Empire Power electric generator.

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

3. **Monitoring, Recordkeeping, and Reporting Requirements**

- a. The Permittee shall keep records of fuel supplier certifications or letters from fuel suppliers to demonstrate compliance with the sulfur content limit. These records shall be made available to ADEQ upon request.

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

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

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

4. **Permit Shield**

Compliance with the requirements in Condition VI.B shall be deemed compliance with A.A.C. R18-2-719.H and A.A.C. R18-2-719.J.

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

C. Particulate Matter and Opacity

1. **Emissions Limitations and Standards**

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

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

Where

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

Q = the heat input in million Btu per hour.

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

- b. For purposes of Condition VI.C, 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 on a

plant or premises shall be used for determining the maximum allowable amount of particulate matter, which may be emitted.

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

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

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

2. Monitoring, Record keeping and Reporting Requirements

- a. The Permittee shall keep records of fuel supplier certifications or letters from fuel suppliers, containing information regarding the name of the fuel supplier and lower heating value of the fuel. These records shall be made available to ADEQ upon request.

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

- b. The Permittee shall conduct monthly opacity monitoring of the stack of the internal combustion engines in accordance with Condition I.A of this Attachment.

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

3. Permit Shield

Compliance with the requirements of Condition VI.C shall be deemed compliance with A.A.C. R18-2-719.C.1, A.A.C. R18-2-719.B and A.A.C. R18-2-719.E.

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

D. Sulfur Dioxide

1. Emission Limitations and Standards

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

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

2. Permit Shield

Compliance with the requirements in Condition VI.D shall be deemed compliance with A.A.C. R18-2-719.F.

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

E. Hazardous Air Pollutants Requirements for Existing Emergency Engines Greater than 100 HP

1. General Requirements

- a. At all times, the Permittee shall operate and maintain the engine, including associated air pollution control equipment and monitoring equipment, in a

manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require the Permittee to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Director which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

[40 CFR 63.6605(b)]

- b. The Permittee shall be in compliance with the emission limitations, operating limitations and other requirements applicable to the emergency engines at all times.

[40 CFR 63.6605(a)]

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

[40 CFR 63.6625(e)]

2. Fuel Limitations

For the diesel fired engine, the Permittee shall use diesel fuel that meets the following requirements:

- a. A maximum sulfur content of 15 ppm; and
- b. A minimum cetane index of 40, or a maximum aromatic content of 35 volume percent.

[40 CFR 63.6604, 40 CFR 80.510]

3. Operating Requirements

- a. The Permittee shall comply with the following requirements:

[40 CFR §63.6603-Table 2d of Subpart ZZZZ]

- (1) Change oil and filter every 500 hours of operation or annually, whichever comes first;
- (2) For diesel-fired engine, inspect air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary
- (3) For natural-gas fired engine, inspect spark plugs every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; and

- (4) Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.
- (5) The Permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirements in Conditions VI.E.3.a(1) above. The oil analysis shall be performed at the same frequency specified for changing the oil. The analysis program must at a minimum analyze Total Acid Number (for gas-fired engine), Total Base Number (for diesel-fired engine), viscosity; and percent water content. The condemning limits for these parameters are as follows:

[40 CFR §63.6625(j)]

- (a) For natural gas-fired engine, Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new;
- (b) For diesel-fired engine, Total Base Number is less than 30 percent of the Total Base Number of the oil when new
- (c) Viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; and
- (d) Percent water content (by volume) is greater than 0.5.

If all of the above limits are not exceeded, the Permittee is not required to change the oil. If any of the limits are exceeded, the Permittee must change the oil within 2 business days of receiving the results of the analysis, or before commencing operation, whichever is later. The analysis program shall be part of the maintenance plan for the engines..

- b. *The Permittee shall install a non-resettable hour meter on the emergency engines.*

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

[Material permit conditions are indicated by underline and italics]

- c. The Permittee shall operate the emergency engines according to the requirements in Conditions VI.E.3.c(1) through (3) below. In order for the engines to be considered emergency stationary ICE under 40 CFR 63 Subpart ZZZZ, any operation other than emergency operation, maintenance response, and operation in non-emergency situations for 50 hours per year, as described in these Conditions, is prohibited. If the emergency engine is not operated in accordance with the requirements in Conditions VI.E.3.c(1) through (3) below, the engine will not be considered an emergency engine and must meet all requirements for non-emergency engines.

[40 CFR 63.6640(f)]

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

[40 CFR 63.6640(f)(1)]
- (2) The Permittee may operate the engine for any combination of the purposes specified in Conditions **Error! Reference source not found.** through (b) below for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by Condition VI.E.3.c(3) below counts as part of the 100 hours per calendar year.

[40 CFR 63.6640 (f)(2)]

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

[40 CFR 63.6640 (f)(2)(i)]
- (3) The engines may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in Condition VI.E.3.c(2) above. Except as provided in Conditions VI.E.3.c(4)(a) and (b) below, the 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

[40 CFR 63.6640 (f)(4)]
- (4) The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the following conditions are met:
 - (a) The engine is dispatched by the local balancing authority or local transmission and distribution system operator.
 - (b) The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region.

- (c) The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines.
- (d) The power is provided only to the facility itself or to support the local transmission and distribution system.
- (e) The Permittee identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the engine owner or operator.
[40 CFR 63.6640(f)(4)(ii)]

4. Reporting and Recordkeeping requirements

a. The Permittee shall keep records of the following:

- (1) A copy of each notification and report that was submitted to comply with this 40 CFR, Part 63, Subpart ZZZZ, including all documentation supporting any Initial Notification or Notification of Compliance Status that is submitted, according to the requirement in 40 CFR 63.10(b)(2)(xiv).
[40 CFR 63.6655(a)(1)]
- (2) Records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment.
[40 CFR 63.6655(a)(2)]
- (3) Records of all required maintenance performed on the air pollution control and monitoring equipment.
[40 CFR 63.6655(a)(4)]
- (4) Records of actions taken during periods of malfunction to minimize emissions in accordance with 40 CFR 63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.
[40 CFR 63.6655(a)(5)]
- (5) The Permittee shall keep records of the maintenance conducted on the stationary RICE in order to demonstrate that the Permittee operated and maintained the stationary RICE according to the maintenance plan and management practice requirements under Condition VI.E.3.a above.
[40 CFR 63.6655(e)]

- (6) If the emergency engines 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. If the engine is used for the purposes specified in Condition VI.E.3.c(4) above, the Permittee shall keep records of the notification of the emergency situation, and the date, start time, and end time of engine operation for these purposes.
- [40 CFR 63.6655(f)]
- (7) If the Permittee chooses to utilize an oil analysis program pursuant to Condition VI.E.3.a(5) above, the Permittee shall keep records of the parameters that are analyzed as part of the oil analysis program, the results of the oil analysis, and the oil changes for the engines.
- [40 CFR 63.6625(i)]
- (8) The Permittee shall keep each record readily accessible in hard copy or electronic form for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record.
- [40 CFR 63.6660(a), (b) and (c)]
- b. If an emergency engine is operating during an emergency and it is not possible to shut down the engine in order to perform the management practice requirements on the schedule required in Condition VI.E.3 above, or if performing the management practice on the required schedule would otherwise pose an unacceptable risk under federal, state, or local law, the management practice can be delayed until the emergency is over or the unacceptable risk under federal, state, or local law has abated. The management practice should be performed as soon as practicable after the emergency has ended or the unacceptable risk under federal, state, or local law has abated. The Permittee must report any failure to perform the management practice on the schedule required and the federal, state or local law under which the risk was deemed unacceptable.
- [40 CFR 63 Subpart ZZZZ, Table 2d]
- c. If the engine operates for the purpose specified in Condition VI.E.3.c(4), the Permittee shall submit an annual report according to the requirements in Conditions VI.E.4.c(1) through (2) below.
- [40 CFR 63.6650(h)]
- (1) The report must contain the following information:
- (a) Company name and address where the engine is located.
- (b) Date of the report and beginning and ending dates of the reporting period.

- (c) Engine site rating and model year.
 - (d) Latitude and longitude of the engine in decimal degrees reported to the fifth decimal place.
 - (e) Hours spent for the operation for the purposes specified in Condition VI.E.3.c(4) above, including the date, start time, and end time for engine operation for the purposes specified in Condition VI.E.3.c(4) above. The report must also identify the entity that dispatched the engine and the situation that necessitated the dispatch of the engine.
- (2) Annual reports for each calendar year must be submitted no later than March 31 of the following calendar year.

The annual report must be submitted electronically using the subpart specific reporting form in the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) (www.epa.gov/cdx). However, if the reporting form specific to 40 CFR Part 63, Subpart ZZZZ is not available in CEDRI at the time that the report is due, the written report must be submitted to the Administrator at the appropriate address listed in 40 CFR §63.13.

5. Permit Shield

Compliance with the requirements in Condition VI.E shall be deemed compliance with 40 CFR 63.6603, 63.6605(a), 63.6605(b), 63.6625(e), 63.6625(f), 63.6640(f)(1), (2) and (4), 63.6650(h), 63.6655(a)(1), (2), (4) & (5), 63.6655(e), (f), and 63.6660.

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

VII. DIESEL FIRE PUMP ENGINE

A. Applicability

This Section applies to the 73-hp emergency stationary compression ignition internal combustion diesel fire pump engine subject to 40 CFR 60, Subpart III.

B. New Source Performance Standard Requirements

1. Compliance Requirements

The Permittee shall comply with the requirements of this section by purchasing an engine certified to the emission standards specified in Condition VII.B.3. The engine shall be installed and configured according to the manufacturer's emission-related specifications.

[40 CFR 60.4211(c)]

2. Operating Requirements

The Permittee must operate the emergency diesel fire pump engine according to the requirements in Condition VII.B.2.a through c below. In order for the engine to be considered an emergency stationary ICE under this Section, any operation other than emergency operation, maintenance, and testing, and operation in non-emergency situations for 50 hours per year, as described in Condition VII.B.2.a through c below is prohibited. If the Permittee does not operate the engine according to the requirements in Condition VII.B.2.a through c below, the engine will not be considered an emergency engine under this Section and must meet all requirements for non-emergency engines.

[40 CFR 60.4211(f)]

a. There is no time limit on the use of emergency stationary ICE in emergency situations.

[40 CFR 60.4211(f)(1)]

b. The Permittee may operate the emergency stationary ICE for any combination of the purposes specified in Condition VII.B.2.b(1) through (2) below for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by Condition VII.B.2.c below counts as part of the 100 hours per calendar year allowed by this Condition VII.B.2.b.

(1) Emergency stationary ICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine.

(2) The owner or operator 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 owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year.

[40 CFR 60.4211(f)(2)]

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

[40 CFR 60.4211(f)(3)]

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

- (1) The engine is dispatched by the local balancing authority or local transmission and distribution system operator;
- (2) The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region.
- (3) The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines.
- (4) The power is provided only to the facility itself or to support the local transmission and distribution system.
- (5) The Permittee identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the Permittee.

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

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

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

[Material Permit Conditions are indicated by underline and italics]

- f. The Permittee shall operate and maintain the fire pump engine over its entire life according to the manufacturer's emissions-related written instructions. A copy of the instructions shall be kept onsite and made available to ADEQ upon request.

[40 CFR 60.4206, 40 CFR 60.4211(a)(1)]

- g. The Permittee shall only change those emissions-related settings that are permitted by the manufacturer.

[40 CFR 60.4211(a)(2)]

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

[40 CFR 60.4211(a)(3)]

- i. Fuel Requirements:

The Permittee shall use diesel fuel that meets the following requirements.

- (1) A maximum sulfur content of 15 ppm; and
- (2) A minimum cetane index of 40, or a maximum aromatic content of 35 volume percent.

[40 CFR 60.4207(b)]

3. Emission Limitations and Standards

a. Particulate Matter (PM)

The Permittee shall limit the emission of PM from the fire pump engine to 0.60 grams per horsepower-hour (g/hp-hr) or less.

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

b. Carbon Monoxide (CO)

The Permittee shall limit the emission of CO from the fire pump engine to 3.7 (g/hp-hr) or less.

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

c. Nitrogen Oxides (NO_x) and Non-Methane Hydrocarbon (NMHC)

The Permittee shall limit the combined emissions of NO_x and NMHC from the fire pump engine to 7.8 (g/hp-hr) or less.

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

4. Recordkeeping Requirement

The Permittee shall maintain records of the fire pump engine operation. The records shall include the reason of operation and the duration of time the engine was operated.

[40 CFR 60.4214(b)]

5. National Emission Standards for Hazardous Pollutants (NESHAP) Requirements

The Permittee shall meet the requirements of 40 CFR Part 63, Subpart ZZZZ by meeting the requirements of 40 CFR Part 60, Subpart IIII.

[40 CFR 63.6590(c)]

6. Permit Shield

Compliance with Section VII shall be deemed compliance with 40 CFR 60.4211(c), 40 CFR 60.4209(a), 40 CFR 60.4211(f), 40 CFR 60.4206, 40 CFR 60.4211(a)(1), 40 CFR 60.4211(a)(2), 40 CFR 60.4211(a)(3), 40 CFR 60.4207(b), 40 CFR 60.4205(c), 40 CFR 60 Subpart IIII Table 4, 40 CFR 60.4214(b), 40 CFR 63.6590(c).

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

VIII. NEW EMERGENCY SPARK IGNITION ENGINE

A. Applicability

This Section is applicable emergency spark ignition engines (less than 130 HP) subject to 40 CFR 60, Subpart JJJJ.

B. Operating Requirements

1. In order for an engine to be considered an emergency stationary ICE under this Section, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in Condition VIII.B.3.a through c below, is prohibited. If the Permittee does not operate the engine according to the requirements in Condition VIII.B.3.a through c below, the engine will not be considered an emergency engine under this Section and must meet all requirements for non-emergency engines.

[40 CFR 60.4243(d)]
2. *The Permittee shall install a non-resettable hour meter prior to start-up of the engine.*

[A.A.C. R18-2-331.A.3.c and 40 CFR 60.4237(c)]
[Material Permit Conditions are indicated by underline and italics]
3. The Permittee shall operate the emergency stationary SI ICE according to the requirements in Conditions VIII.B.3.a through c below.

[40 CFR 60.4243(d)]

 - a. There is no time limit on the use of emergency stationary SI ICE in emergency situations.

[40 CFR 60.4243(d)(1)]
 - b. The Permittee may operate the stationary emergency SI ICE for any combination of the purposes specified in Conditions VIII.B.3.b(1) through (2) below for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by Condition VIII.B.3.c below counts as part of the 100 hours per calendar year.

[40 CFR 60.4243(d)(2)]

 - (1) Emergency stationary SI ICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state, or local government, the manufacturer, the vendor, the regional transmission operator, or the insurance company associated with the engine.

[40 CFR 60.4243(d)(2)(i)]
 - (2) The Permittee may petition the Administrator or Director for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency SI ICE beyond the 100 hours per calendar year.

[40 CFR 60.4243(d)(2)(i)]
 - c. The Permittee may operate the emergency stationary SI ICE for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in Condition VIII.B.3.b above. Except as provided in Conditions VIII.B.3.c(1) below, the 50 hours per calendar year for non-

emergency situations cannot be used for peak shaving, non-emergency demand response, to generate income for a facility to an electric grid, or otherwise supply power as part of a financial arrangement with another entity.

[40 CFR 60.4243(d)(3)]

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

[40 CFR 60.4243(d)(3)(i)]

(a) The engine is dispatched by the local balancing authority or local transmission and distribution system operator.

[40 CFR 60.4243(d)(3)(i)(A)]

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

[40 CFR 60.4243(d)(3)(i)(B)]

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

[40 CFR 60.4243(d)(3)(i)(C)]

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

[40 CFR 60.4243(d)(3)(i)(D)]

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

[40 CFR 60.4243(d)(3)(i)(E)]

4. The Permittee may operate an emergency stationary natural gas fired SI ICE using propane for a maximum of 100 hours per year as an alternative fuel solely during emergency operations, but must keep records of such use. If propane is used for more than 100 hours per year in an engine that is not certified to the emission standards when using propane, the Permittee shall conduct a performance test to demonstrate compliance with the emission standards of 40 CFR 60.4233.

[40 CFR 60.4243(e)]

C. Emission Standards

1. The Permittee shall comply with the following emission standards.

[40 CFR 60.4233(d), 40 CFR 63 Subpart JJJJ Table 1]

- a. Nitrogen Oxides (NO_x) + hydrocarbons (HC): 10g/HP-hr
 - b. Carbon Monoxide (CO): 387 g/HP-hr
2. The Permittee shall operate and maintain the stationary emergency SI ICE such that it complies with the emission standards listed in Condition VIII.C.1 over the entire life of the engine.

[40 CFR 60.4234]

D. Compliance Requirements

1. Certified SI ICE

Except as otherwise provided in Condition VIII.D.2, the Permittee shall demonstrate compliance with the emission standards in Condition VIII.C.1 by purchasing an engine certified to these emission standards. In addition, the Permittee shall meet one of the following requirements:

[40 CFR 60.4243(b)(1)]

a. Operating per Manufacturer's Instructions

The Permittee shall operate and maintain the certified stationary SI ICE and control device according to the manufacturer's emission-related written instructions and shall keep records of conducted maintenance to demonstrate compliance. The Permittee shall also meet the requirements as specified in 40 CFR part 1068, subparts A through D, as applicable. If engine settings are adjusted according to and consistent with the manufacturer's instructions, the stationary SI ICE will not be considered out of compliance.

[40 CRR 60.4243(a)(1)]

b. Not Operating per Manufacturer's Instructions

If the Permittee does not operate and maintain the certified stationary SI ICE and control device in accordance with the manufacturer's emission-related written instructions, then the SI ICE will be considered a non-certified engine. The Permittee shall keep a maintenance plan and records of conducted maintenance to demonstrate compliance and shall, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions.

[40 CFR 60.4243(a)(2)]

2. Non-Certified SI ICE

If the Permittee purchases a non-certified engine, or does not operate and maintain the certified stationary SI internal combustion engine and control device according to the manufacturer's written emission-related instructions, the Permittee is required to perform initial performance testing, but is not required to conduct subsequent performance testing unless the stationary engine is rebuilt or undergoes major repair or maintenance. A rebuilt stationary SI ICE means an engine that has been rebuilt as that term is defined in 40 CFR 94.11(a).

[40 CFR 60.4243(f)]

E. Recordkeeping and Reporting Requirements

1. The Permittee shall keep records of the following information:

[40 CFR 60.4245(a)]

- a. All notifications submitted to comply with this Section and all documentation supporting any notification.
- b. Maintenance conducted on the engine.
- c. If the engine is a certified engine, documentation from the manufacturer that the engine is certified to meet the emission standards and information as required in 40 CFR Parts 90, 1048, 1054, and 1060, as applicable.
- d. If the 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.

2. 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.

[40 CFR 60.4245(b)]

F. Permit Shield

Compliance with the conditions of this Section VIII shall be deemed compliance with 40 CFR 60.4243(a), 40 CFR 60.4243(b), 40 CFR 60.4243(c), 40 CFR 60.4243(f), 40 CFR 60.4243(h), and 40 CFR 4243(i).

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

IX. GASOLINE DISPENSING FACILITY

A. Applicability

1. This Section applies to each gasoline dispensing facility (GDF) located at the facility with a monthly throughput of 10,000 gallons or less. The affected source includes each gasoline cargo tank during the delivery of product to a GDF and also includes each storage tank.

[40 CFR 63.11111(a)]

2. This Section applies to the gasoline storage tank and associated equipment components in vapor or liquid gasoline service. Pressure/Vacuum vents on gasoline storage tanks and the equipment necessary to unload product from cargo tanks into the storage tanks at a GDF are covered emission sources. The equipment used for the refueling of motor vehicles is not covered by Section IX.

[40 CFR 63.11112(a)]

B. Emission Standards

1. The Permittee shall not allow gasoline to be handled in a manner that would result in vapor releases to the atmosphere for extended periods of time. Measures to be taken include, but are not limited to, the following:

[40 CFR 63.11116(a)]

- a. Minimize gasoline spills;
- b. Clean up spills as expeditiously as practicable;
- c. Cover all open gasoline containers and all gasoline storage tank fill-pipes with a gasketed seal when not in use;
- d. Minimize gasoline sent to open waste collection systems that collect and transport gasoline to reclamation and recycling devices, such as oil/water separators.

2. If the facility's monthly throughput ever exceeds 10,000 gallons, the affected source shall be subject to additional requirements of 40 CFR 63 Subpart CCCCCC and will remain subject to those requirements even if the affected source's throughput later falls below the applicable throughput threshold. The Permittee shall comply with such requirements no later than 3 years after the affected source becomes subject to the additional requirements.

[40 CFR 63.11111(i) and 40 CFR 63.11113(c)]

C. Air Pollution Control Requirements

The Permittee shall, at all times, operate and maintain the GDF(s), including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used shall be based on information available to the Director which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

[40 CFR 63.11115(a)]

D. Recordkeeping Requirements

The Permittee shall maintain records of monthly throughput of gasoline (total volume of gasoline that is loaded into, or dispensed from the gasoline storage tank at the GDF(s) during a month). Monthly throughput shall be calculated on the basis of total of previous 364 days divided by 12. Upon request by the Director, the Permittee shall demonstrate that the monthly throughput is less than 10,000 gallons. These records shall be maintained for a period of 5 years, and shall be available to the Director within 24 hours of the request.

[40 CFR 63.11111(e), 40 CFR 63.11116(b), 40 CFR 63.11117(d), and 40 CFR 63.11132]

E. Permit Shield

Compliance with the conditions of Section IX shall be deemed compliance with 40 CFR 63.11111(a), 40 CFR 63.11112(a), 40 CFR 63.11116(a), 40 CFR 63.11111(i), 40 CFR 63.11113(c), 40 CFR 63.11115(a), 40 CFR 63.11111(e), 40 CFR 63.11116(b), 40 CFR 63.11117(d), and 40 CFR 63.11132.

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

X. GASOLINE STORAGE TANK

A. Applicability

This Section is applicable to the 3000 gallon gasoline storage tank.

B. Operational Requirements

1. The gasoline storage tank shall be equipped with a submerged filling device or acceptable equivalent, for control of hydrocarbon emissions.

[A.A.C. R18-2-710.B]

2. All pumps and compressors that handle gasoline shall be equipped with mechanical seals or other equipment of equal efficiency to prevent release of organic contaminants into the atmosphere.

[A.A.C. R18-2-710.D]

C. Monitoring and recordkeeping requirements

The Permittee shall maintain a file of the typical Reid vapor pressure of gasoline stored, the dates of storage and the dates on which the gasoline storage take is empty shall be shown.

[A.A.C. R18-2-710.E.1]

D. Permit Shield

Compliance with the requirements of Section X shall be deemed compliance with A.A.C. R18-2-710.B, D, E.1, E.2, and E.4.

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

XI. TRUCK EMULSION PLANT / MISCELANEOUS STORAGE TANKS / COOLING TOWERS

A. Applicability

1. This Section applies to the Truck Emulsion Plant and Mixed Fuel operation consisting of the following equipment/processes:

- a. ANS receiving tank
- b. ANS storage tank
- c. Mixed fuel storage tank (15,000 gallons)
- d. Emulsion storage silo

- e. Diesel fuel storage tanks (16,900 gallon tank)
 - f. Surfactant storage tanks (2 Tanks, 27,630 gallons each)
 - g. Surfactant storage tank (15,000 gallons)
 - h. Blend tank (10,000 gallons)
 - i. Mixed fuel storage tank (8,500 gallons)
 - j. Mixed fuel storage tank (10,000 gallons)
2. And the following equipment/processes:
- a. Nitric acid storage tanks
 - b. Liquid ammonium nitrate storage tanks
 - c. Cooling towers associated with nitric acid plant & powerhouse boilers.
 - d. Liquid fertilizer plant
 - e. Brine concentrator plant
 - f. Ammonia storage and unloading facility

B. Operating Limitations

1. *The Permittee shall limit the number of transport trucks loaded with emulsion to 1,095 per year based on a 12-month rolling total.*
[A.A.C. R18-2-306.01.A and A.A.C. R18-2-331.A.3.a]
[Material Permit Condition is indicated by underline and italics]
2. The Permittee shall maintain record of the number of transport trucks loaded with emulsion and mixed fuel. At the end of each month, the Permittee shall calculate and record the monthly and rolling 12-month total of the number of transport trucks loaded with emulsion and mixed fuel.

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

C. Particulate Matter and Opacity

1. Emission Limitations and Standards
 - a. The Permittee shall not cause or permit the emissions of particulate matter discharged into the atmosphere in any one hour from the above equipment/processes in total quantities in excess of the amounts calculated by one of the following equations:
 - (1) For process sources having a process weight rate of 60,000 pounds per hour (30 tons per hour) or less, the maximum allowable emissions shall be determined by the following equation:

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

Where:

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

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

- (2) For process weight rate greater than 60,000 pounds per hour (30 tons per hour), the maximum allowable emissions shall be determined by the following equation:

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

Where "E" and "P" are defined as indicated in (1) above.

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

- b. For purposes of Condition XI.C, the total process weight from all similar units employing a similar type process shall be used in determining the maximum allowable emission of particulate matter.

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

- c. The Permittee shall not cause or allow to be discharged into the atmosphere any plume from any equipment affected under this Section, that exhibits opacity greater than 20%, measured in accordance with EPA Reference Method 9. Where the presence of uncombined water is the only reason for the exceedance of this opacity standard, such exceedance shall not constitute a violation.

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

2. Monitoring, Record keeping and Reporting Requirements

The Permittee shall conduct bi-weekly opacity monitoring of all affected equipment/process under Section XI in accordance with Condition I.A of this Attachment.

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

3. Permit Shield

Compliance with the requirements of Condition XI.B and C of this Part shall be deemed compliance with A.A.C. R18-2-702.B, A.A.C. R18-2-702.C, A.A.C. R18-2-730.A.1 and A.A.C. R18-2-730.B.

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

D. Nitrogen Oxides

1. Emission Limitations and Standards

- a. The Permittee shall not cause or permit the emission of nitrogen oxides (NO_x) expressed as nitrogen dioxide (NO₂) greater than 500 parts per million.

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

2. Air Pollution Control Requirement

- a. *The Permittee shall, to the extent practicable, operate and maintain a wet scrubber installed on the vents of the nitric acid storage tanks (T-95, T-129 and T-130) for minimizing nitrogen oxides emissions of the vent fume and reducing its opacity.*

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

[Material Permit Condition is indicated by underline and italics]

- b. The Permittee shall inject sufficient quantity of hydrogen peroxide to the acid routed from the nitric acid plant to Storage Tank No. 102, in a manner consistent with good air pollution control practices, to minimize nitrogen oxides emissions from the storage tank vent.

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

3. Permit Shield

Compliance with the requirements of Condition XI.D shall be deemed compliance with A.A.C. R18-2-730.A.3.

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

E. VOCs and Other Regulated Pollutants

1. Permittee shall not cause or permit the emission of gaseous or odorous materials from equipment and operations under this Section in such quantities or concentrations as to cause air pollution.

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

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

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

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

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

4. Permit Shield

Compliance with the requirements of Condition XI.E shall be deemed compliance with A.A.C. R18-2-730.D, A.A.C. R18-2-730.F and A.A.C. R18-2-730.G.

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

XII. FUGITIVE DUST REQUIREMENTS

A. Applicability

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

B. Particulate Matter and Opacity

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

1. Emission Limitations/Standards

a. Opacity of emissions from any fugitive dust non-point source shall not be greater than 40%.

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

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

(1) For a building or its appurtenances, or a building or subdivision site, or a driveway, or a parking area, or a vacant lot or sales lot, or an urban or suburban open area to be constructed, used, altered, repaired, demolished, cleared, or leveled, or the earth to be moved or excavated, keep dust and other types of air contaminants to a minimum by good modern practices such as using an approved dust suppressant or adhesive soil stabilizer, paving, covering, landscaping, continuous wetting, detouring, barring access, or other acceptable means;

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

(2) Keep dust to a minimum from vacant lots or an urban or suburban open area where motor vehicular activity occurs by using an approved dust suppressant, or adhesive soil stabilizer, or by paving, or by barring access to the property, or by other acceptable means;

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

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

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

(4) Take reasonable precautions, such as wetting, applying dust suppressants, or covering the load when transporting material

likely to give rise to airborne dust. Earth or other material that is deposited by trucking or earth moving equipment shall be removed from paved streets by the person responsible for such deposits.

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

- (5) Take reasonable precautions, such as the use of spray bars, wetting agents, dust suppressants, covering the load, and hoods when crushing, screening, handling, transporting or conveying materials or other operations likely to result in significant amounts of airborne dust to prevent excessive amounts of particulate matter from becoming airborne;

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

- (6) Take reasonable precautions such as chemical stabilization, wetting, or covering when organic or inorganic dust producing material is being stacked, piled, or otherwise stored to prevent excessive amounts of particulate matter from becoming airborne;

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

- (7) Operate stacking and reclaiming machinery utilized at storage piles at all times with a minimum fall of material, or with the use of spray bars and wetting agents to prevent excessive amounts of particulate matter from becoming airborne;

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

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

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

2. Air Pollution Control Requirements

Unpaved Roads

Water, or an equivalent control, shall be used to control visible emissions from unpaved roads.

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

[Material Permit Condition is indicated by underline and italics]

3. Monitoring and Recordkeeping Requirements

- a. The Permittee shall maintain records of the dates on which any of the activities listed in Condition XII.B.1.b above were performed and the control measures that were adopted.

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

- b. Opacity Monitoring Requirements

Each month, the Permittee shall monitor visible emissions from fugitive sources in accordance with Condition I.A of this Attachment.

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

4. Permit Shield

Compliance with the requirements of Section XII shall be deemed compliance with A.A.C. R18-2-604, -605, -606, 607, -608, -614, and -804.B.

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

XIII. OTHER PERIODIC ACTIVITIES

A. Use of Paints

1. Volatile Organic Compounds

a. Emission Limitations/Standards

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

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

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

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

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

(b) Thin or dilute any architectural coating with a photochemically reactive solvent.

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

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

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

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

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

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

- (4) Whenever any organic solvent or any constituent of an organic solvent may be classified from its chemical structure into more than one of the groups of organic compounds described in Condition XIII.A.1.a(2), it shall be considered to be a member of the group having the least allowable percent of the total volume of solvents.

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

b. Monitoring and Recordkeeping Requirements

- (1) Each time a spray painting project is conducted, the Permittee shall make a record of the following:

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

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

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

c. Permit Shield

Compliance with the requirements of Condition XIII.A.1 shall be deemed compliance with A.A.C.R18-2-727.

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

2. Opacity

a. Emission Limitation/Standard

The Permittee shall not cause, allow or permit visible emissions from painting operations in excess of 20% opacity.

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

b. Permit Shield

Compliance with the requirements in Condition XIII.A.2 shall be deemed compliance with A.A.C.R18-2-702.B.3.

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

B. 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.12]

2. Monitoring and Recordkeeping Requirement

The Permittee shall keep all required records, including 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 requirements of Condition XIII.B shall be deemed compliance with A.A.C. R18-2-1101.A.12.

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

ATTACHMENT "C": EQUIPMENT LIST

Equipment	Quantity	Maximum Rated Capacity	Manufacturer	Model/Type	Serial No.	Date Installed or Modified
Ammonium Nitrate Solution Production						
ANS Plant (Neutralizer)	1	700 tons/day	Custo-O-Fab, Inc.	Reactor Vessel	04-320	2004
Two Stage Venturi/Packed Bed Scrubber	1	27000 pounds/hour	DR Technologies/ Koch-Giltsch	ELV-001 Wet Scrubber	P-1395/ 10-1047	1992/2010
Nitric Acid Production						
AOP-4	1	330 tons/day	Chemico	Dual Pressure Unit	N/A	1975
AOP-4 Superheater	1	5.4 MM BTU/hr	Smalling	N/A	N/A	1989
AOP-4 Cooling Tower	1	6000 gallons/min	Ecodyne	N/A	N/A	1975
AOP-3	1	176 tons/day	Jacobs Engineering	Single Pressure Unit	N/A	Modified in 1993
AOP-3 Tail Gas Catalytic Reactor	1	N/A	Enprosol	Honeycomb SCR denox catalyst	2676	2007
AOP-3 Cooling Tower	1	5600 gallons/min	Marley	N/A	N/A	1984

Equipment	Quantity	Maximum Rated Capacity	Manufacturer	Model/Type	Serial No.	Date Installed or Modified
Nitric Acid Tank – Packed Bed Scrubber	1	N/A	N/A	N/A	N/A	N/A
Ammonium Nitrate Prill Production						
Falling Film Evaporator	1	391 tons/day	Struthers	Falling Film Evaporator	140FFE3	1962
Prill Tower	1	391 tons/day	ANP	N/A	140F620	2009
AN Reclaim Unit	1	20' x 56' Vessel	Smyth Steel	N/A	140MIS0901	2009
Oscillating Conveyor 3500	1	352 tons/day	Link Belt	3500	140CN0177	1962
Rotary Predryer	1	352 tons/day	Standard Steel	N/A	140DR0901/ 0902	2009
Cleated Belt Conveyor	1	352 tons/day	N/A	N/A	140CN0901	2009
Fluidized Bed Dryer/Cooler	1	352 tons/day	N/A	N/A	140E0901	2009
Belt Conveyor 1b	1	352 tons/day	N/A	N/A	140CN0904	2009
Rotex Vibrating Screen	1	352 tons/day	N/A	N/A	140E0901	2009

Equipment	Quantity	Maximum Rated Capacity	Manufacturer	Model/Type	Serial No.	Date Installed or Modified
Coating Drum	1	352 tons/day	N/A	N/A	140D0901	2009
Barn 1	1	1500 tons	Star	N/A	PB1	1969
Barn 2	1	1500 tons	Star	N/A	PB2	1980
Transfer Belt 1	1	352 tons/day	N/A	N/A	140CN902	2009
Transfer Belt 2	1	352 tons/day	N/A	N/A	140CN0903	2009
Belt Conveyor to Barn 1	1	352 tons/day	Link Belt	N/A	140CN0905	1970
Belt Conveyor to Barn 2	1	352 tons/day	Link Belt	N/A	140CN0170	1940
Bulk Toter Barn Loadout Conveyors	2	40 tons/hour	A.J. Sackett & Sons Co.	312UT	140CN1239/43	2012
Bulk Toter/Transloader	1	70 tons/hr	A.J Sackett & Sons Co.	BT101	140CN1247	2012
Powerhouse						
Process Steam Boilers No. 1	1	38 MMBTU/hr	Erie City Iron Works with Zurn Economizer	Natural Gas Fired	215BLR1	1967

Equipment	Quantity	Maximum Rated Capacity	Manufacturer	Model/Type	Serial No.	Date Installed or Modified
Process Steam Boilers No. 2	1	40 MMBTU/hr	Erie City Iron Works with Zurn Economizer	Natural Gas Fired	215BLR2	1967
Process Steam Boilers No. 3	1	40 MMBTU/hr	Erie City Iron Works with Zurn Economizer	Natural Gas Fired	215BLR3	1967
Powerhouse Cooling Towers	2	1700 gallons/min	Marley	Induced draft cooling	N/A	1999
Electric Power Generator (Emergency)	1	830 HP	Caterpillar	Natural Gas Engine-driven Model G399	G399	1998
Diesel Air Compressor (Emergency)	1	350 HP	COMPAIR	Diesel Engine-driven Model OFQ1500D	N/A	2006
Diesel Fuel Fire Pump Engine (Emergency)	1	73 HP	N/A	N/A	FPE	2009
Electric Power Generator (Emergency)	1	96 HP	Generac	Natural Gas driven Model SG060	TBD	TBD
Brine Concentrator Plant						
Deaerator and Distillate Tank	1	70,000 lbs/hr boiler feed water	Allied Steel Production Corporation	10879	N/A	1999

Equipment	Quantity	Maximum Rated Capacity	Manufacturer	Model/Type	Serial No.	Date Installed or Modified
Storage Vessels for Petroleum Liquids						
Tank 1763	1	3000 gallon	TY-CO	Horizontal gasoline tank	TK-1763	~1998
Storage Vessels for NH3						
Ammonia unloading stations	5	200 tons NH3/day (2 rail cars)	ANPI	Custom Fabricated	N/A	N/A
Tanks 90 & 91	2	60 tons	Austad Steel and Construction Company	250 psig ammonia storage tank with 250 psig relief valve	T-90 & T-91	1958
Tanks 92 & 93	2	40 tons	Chicago Bridge and Iron	250 psig ammonia storage tank with 250 psig relief valve	T-92 & T-93	1960
Tank 94	1	1600 tons	Chicago Bridge and Iron	60 psig ammonia storage tank	T-94	1964
Tanks 37 & 38	2	2,500 tons each	Graver Ordinance (37/38), EMI Works	250 psig ammonia storage tank with 250 psig relief valve	T-37 & T-38,	1943 (37/38)
Tanks 39 & 40	2	2,500 tons each	Graver Ordinance (39/40), EMI Works	250 psig air storage tank with 250 psig relief valve	T-39 & T-40	1938 (39/40)
Miscellaneous Storage Vessels						

Equipment	Quantity	Maximum Rated Capacity	Manufacturer	Model/Type	Serial No.	Date Installed or Modified
T-15	1	13,500 gallons	N/A	Steam condensate	T-15	1960's
T-67	1	20,000 tons	Skinner	ANS storage	T-67	2000
T-81	1	125 tons	Trumbo	ANS storage	T-81	1984
T-82	1	150 tons	Kansas City Steel	ANS storage	T-82	1950
T-95	1	600 tons	Chicago Bridge and Iron Co.	Nitric Acid	T-95	1964
T-97	1	2000 tons	Schuff Steel Co.	ANS storage	T-97	1982
T-101	1	5000 tons	GATX	ANS storage	T-101	1972
T-102	1	5000 tons	ATS	Nitric acid	T-102	2017
T-171	1	15 tons	N/A	ANS mix/storage	T-171	N/A
T-129	1	N/A	N/A	Nitric acid	T-129	2008
T-130	1	N/A	N/A	Nitric acid	T-130	2008
T-1701	1	50 tons	ATS	ANS/mix storage	T-1702	2017

Equipment	Quantity	Maximum Rated Capacity	Manufacturer	Model/Type	Serial No.	Date Installed or Modified
T-1702	1	10 tons	Kentan, Kennedy Tanic	ANS/mix storage	T-1701	2017
Truck Emulsion Plant and Mixed Fuel Operations						
ANS Solution Receiving Tank	1	7,650 gallons	TBD	ANS Storage	SL01	TBD
ANS Solution Storage Tank	1	15,300 gallons	TBD	ANS Storage	SL06	TBD
Mixed Fuel Storage Tank	1	15,000 gallons	TBD	Mixed Fuel Storage	MF49	TBD
Emulsion Storage Silo	1	100 tons	TBD	Emulsion	Silo-01	TBD
Diesel Fuel Storage Tank	1	16,900 gallons	TBD	Diesel Storage	DF-31	TBD
Surfactant Storage Tank	2	27,630 gallons	TBD	Surfactant Storage	SO-08/SO-09	TBD
Surfactant Storage Tank	1	15,000 gallons	TBD	Surfactant Storage	SO-07	TBD

Equipment	Quantity	Maximum Rated Capacity	Manufacturer	Model/Type	Serial No.	Date Installed or Modified
Blending Tank	1	10,000 gallons	TBD	Blending	BT-02	TBD
Mixed Fuel Tank	1	10,000 gallons	TBD	Mixed Fuel Storage	MF-33	TBD
Mixed Fuel Tank	1	8,500 gallons	TBD	Mixed Fuel Storage	MF-25	TBD
Diesel Fuel Storage Tank	2	2,000 gallons	TBD	TBD	TBD	2018

TBD – To Be Determined

N/A – Not Available