

PERMIT #65025
PLACE ID #838

PERMITTEE: Pinto Valley Mining Corp.
FACILITY: Pinto Valley Mine
PERMIT TYPE: Class II Air Quality Permit
DATE ISSUED:
EXPIRY DATE:

SUMMARY

This Class II synthetic minor renewal air quality permit is issued to Pinto Valley Mining Corp., the Permittee, for the continued operation of the Pinto Valley Mine. The facility is located 8 miles west of Miami, Arizona off Highway 60. This is a renewal of Permit #54118.

The copper ore, mined from the open pit mine, is crushed and concentrated in the crushing and milling units. The moly concentrate, separated out by the froth flotation process, is dried in the moly drying unit. The copper concentrate is pumped to a filter plant where the moisture content of the concentrate is reduced to approximately ten percent. This filter cake is transported by belt conveyors to an enclosed concentrate tent. The material is then hauled by trucks to one of two local copper smelters, a transloading facility in San Manuel, Arizona, or a transloading facility in Guaymas, Mexico where it is loaded onto ships and delivered to buyers. Hydromet operations are also performed on the portion of ore which is not processed in the crushing and concentrator circuit because of its different copper mineral makeup. The leachate or process leach solution (PLS), which contains copper in solution, is processed in a solvent extraction plant before being transferred to the electrowinning tankhouse. The electrowinning process recovers copper metal from the solution.

All low grade ore and other overburden is classified as waste rock and stored on waste rock dumps. Emissions from waste rock are calculated as fugitive emissions.

The facility has potential to emit, without controls, more than 83 tons per year (tpy) of emissions of NO_x. The Permittee is accepting voluntary emission and operating limits, and air pollution control requirements to stay below major source thresholds. Therefore, a synthetic minor Class II permit is required under Arizona Administrative Code (A.A.C.) R18-2-302.B.2.a.

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

[ARS § 49-426.F, A.A.C. R18-2-304.C.2, and -306.A.1]

- A. This permit is valid for a period of five years from the date of issuance.
- B. The Permittee shall submit an application for renewal of this permit at least 6 months, but not more than 18 months, prior to the date of permit expiration.

II. COMPLIANCE WITH PERMIT CONDITIONS

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

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

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

[A.A.C. R18-2-306.A.8.c, -321.A.1, and -321.A.2]

- 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.
- B. The permit shall be reopened and revised under any of the following circumstances
 - 1. 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.
 - 2. The Director or the Administrator determines that the permit needs to be revised or revoked to assure compliance with the applicable requirements.
- C. Proceedings to reopen and reissue 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 affect only those parts of the permit for which cause to reopen exists. Such reopenings shall be made as expeditiously as practicable. Permit reopenings shall not result in a resetting of the five-year permit term.

IV. POSTING OF PERMIT

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

- A.** The Permittee shall post this permit or a certificate of permit issuance where the facility is located 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 ID number that is also listed in the permit to identify that piece of equipment.
- B.** A copy of the complete permit shall be kept on site.

V. FEE PAYMENT

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

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

VI. ANNUAL EMISSION INVENTORY QUESTIONNAIRE

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

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

VII. COMPLIANCE CERTIFICATION

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

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

The compliance certifications shall include the following:

1. Identification of each term or condition of the permit that is the basis of the certification;
2. The identification of the methods or other means used by the owner or operator for determining the compliance status with each term and condition during the certification period;
3. The status of compliance with the terms and conditions of the permit for the period covered by the certification, including whether compliance during the period was continuous or intermittent. The certification shall be based on the methods or means designated in Condition VII.A.2 above. The certifications shall identify each deviation and take it into account for consideration in the compliance certification;

4. All instances of deviations from permit requirements reported pursuant to Condition XII.B of this Attachment; and
5. Other facts the Director may require determining the compliance status of the source.

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

VIII. CERTIFICATION OF TRUTH, ACCURACY AND COMPLETENESS

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

Any document required to be submitted by this 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.

IX. INSPECTION AND ENTRY

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

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

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

X. PERMIT REVISION PURSUANT TO FEDERAL HAZARDOUS AIR POLLUTANT STANDARD

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

If this source becomes subject to a standard promulgated by the Administrator pursuant to Section 112(d) of the Act, then the Permittee shall, within twelve months of the date on which the standard is promulgated, submit an application for a permit revision demonstrating how the source will comply with the standard.

XI. ACCIDENTAL RELEASE PROGRAM

[40 CFR Part 68]

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

XII. EXCESS EMISSIONS, PERMIT DEVIATIONS, AND EMERGENCY REPORTING

A. Excess Emissions Reporting

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

1. Excess emissions shall be reported as follows:

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

(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 XII.A.1.b below.

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

b. The report shall contain the following information:

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

(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;

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

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

(5) Nature and cause of such emissions;

(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; and

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

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

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

B. Permit Deviations Reporting

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

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

C. Emergency Provision

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

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

D. Compliance Schedule

[ARS § 49-426.I.5]

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

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

1. Applicability

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

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

2. Affirmative Defense for Malfunctions

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

- a. The excess emissions resulted from a sudden and unavoidable breakdown of process equipment or air pollution control equipment beyond the reasonable control of the Permittee;
- b. The air pollution control equipment, process equipment, or processes were at all times maintained and operated in a manner consistent with good practice for minimizing emissions;
- c. If repairs were required, the repairs were made in an expeditious fashion when the applicable emission limitations were being exceeded. Off-shift labor and overtime were utilized where practicable to ensure that the repairs were made as expeditiously as possible. If off-shift labor and overtime were not utilized, the Permittee satisfactorily demonstrated that the measures were impracticable;
- d. The amount and duration of the excess emissions (including any bypass operation) were minimized to the maximum extent practicable during

periods of such emissions;

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

3. Affirmative Defense for Startup and Shutdown

- a. Except as provided in Condition XII.E.3.b below, and unless otherwise provided for in the applicable requirement, emissions in excess of an applicable emission limitation due to startup and shutdown shall constitute a violation. When emissions in excess of an applicable emission limitation are due to startup and shutdown, the Permittee has an affirmative defense to a civil or administrative enforcement proceeding based on that violation, other than a judicial action seeking injunctive relief, if the Permittee has complied with the reporting requirements of A.A.C. R18-2-310.01 and has demonstrated all of the following:
 - (1) The excess emissions could not have been prevented through careful and prudent planning and design;
 - (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;
 - (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;
 - (4) The amount and duration of the excess emissions (including any bypass operation) were minimized to the maximum extent practicable during periods of such emissions;
 - (5) All reasonable steps were taken to minimize the impact of the excess emissions on ambient air quality;

- (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;
 - (7) All emissions monitoring systems were kept in operation if at all practicable; and
 - (8) Contemporaneous records documented the Permittee's actions in response to the excess emissions.
- b. If excess emissions occur due to a malfunction during routine startup and shutdown, then those instances shall be treated as other malfunctions subject to Condition XII.E.2 above.
4. Affirmative Defense for Malfunctions During Scheduled Maintenance

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

5. Demonstration of Reasonable and Practicable Measures

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

XIII. RECORD KEEPING REQUIREMENTS

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

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

- C. All required records shall be maintained either in an unchangeable electronic format or in a handwritten logbook utilizing indelible ink.

XIV. REPORTING REQUIREMENTS

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

The Permittee shall submit the following reports:

- A. Compliance certifications in accordance with Section VII of Attachment "A".
- B. Excess emission; permit deviation, and emergency reports in accordance with Section XII of Attachment "A".
- C. Other reports required by any condition of Attachment "B".

XV. DUTY TO PROVIDE INFORMATION

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

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

XVI. PERMIT AMENDMENT OR REVISION

[A.A.C. R18-2-317.01, -318, -319, and -320]

The Permittee shall apply for a permit amendment or revision for changes to the facility which does not qualify for a facility change without revision under Section XVII, as follows:

- A. Facility Changes that Require a Permit Revision - Class II (A.A.C. R18-2-317.01);
- B. Administrative Permit Amendment (A.A.C. R18-2-318);
- C. Minor Permit Revision (A.A.C. R18-2-319); and
- D. Significant Permit Revision (A.A.C. R18-2-320).

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

XVII. FACILITY CHANGE WITHOUT A PERMIT REVISION

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

- A. Except for a physical change or change in the method of operation at a Class II source requiring a permit revision under A.A.C. R18-2-317.01, or a change subject to logging or

notice requirements in Conditions XVII.B and XVII.C below, a change at a Class II source shall not be subject to revision, notice, or logging requirements under this Section.

B. Except as otherwise provided in the conditions applicable to an emissions cap created under A.A.C. R18-2-306.02, the following changes may be made if the source keeps on site records of the changes according to Appendix 3 of the Arizona Administrative Code:

1. Implementing an alternative operating scenario, including raw materials changes;
2. Changing process equipment, operating procedures, or making any other physical change if the permit requires the change to be logged;
3. Engaging in any new insignificant activity listed in A.A.C. R18-2-101.57.a through A.A.C. R18-2-101.57.i but not listed in the permit;
4. Replacing an item of air pollution control equipment listed in the permit with an identical (same model, different serial number) item. The Director may require verification of efficiency of the new equipment by performance tests; and
5. A change that results in a decrease in actual emissions if the source wants to claim credit for the decrease in determining whether the source has a net emissions increase for any purpose. The logged information shall include a description of the change that will produce the decrease in actual emissions. A decrease that has not been logged is creditable only if the decrease is quantifiable, enforceable, and otherwise qualifies as a creditable decrease.

C. Except as provided in the conditions applicable to an emissions cap created under A.A.C. R18-2-306.02, the following changes may be made if the source provides written notice to the Department in advance of the change as provided below:

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

6. A change that will result in the emissions of a new regulated air pollutant above an applicable regulatory threshold but that does not trigger a new applicable requirement for that source category: 30 days. For purposes of this requirement, an applicable regulatory threshold for a conventional air pollutant shall be 10% of the applicable major source threshold for that pollutant.
- D.** For each change under Condition XVII.C above, the written notice shall be by certified mail or hand delivery and shall be received by the Director the minimum amount of time in advance of the change. Notifications of changes associated with emergency conditions, such as malfunctions necessitating the replacement of equipment, may be provided with less than required notice, but must be provided as far in advance of the change, or if advance notification is not practicable, as soon after the change as possible. The written notice shall include:
1. When the proposed change will occur;
 2. A description of the change;
 3. Any change in emissions of regulated air pollutants; and
 4. Any permit term or condition that is no longer applicable as a result of the change.
- E.** A source may implement any change in Condition XVII.C above without the required notice by applying for a minor permit revision under A.A.C. R18-2-319 and complying with subsection A.A.C. R18-2-319.D.2 and A.A.C. R18-2-319.G.
- F.** The permit shield described in A.A.C. R18-2-325 shall not apply to any change made under this Section, other than implementation of an alternate operating scenario under Condition XVII.B.1.
- G.** Notwithstanding any other part of this Section, the Director may require a permit to be revised for any change that, when considered together with any other changes submitted by the same source under this Section over the term of the permit, constitutes a change under subsection A.A.C. R18-2-317.01.A.
- H.** If a source change is described under both Conditions XVII.B and XVII.C above, the source shall comply with Condition XVII.C above. If a source change is described under both Condition XVII.C above and A.A.C. R18-2-317.01.B, the source shall comply with A.A.C. R18-2-317.01.B.
- I.** A copy of all logs required under Condition XVII.B shall be filed with the Director within 30 days after each anniversary of the permit issuance date. If no changes were made at the source requiring logging, a statement to that effect shall be filed instead.
- J.** Logging Requirements
- [A.A.C. R18-2-306.A.4]
1. Each log entry required by a change under Condition XVII.B shall include at least the following information:
 - a. A description of the change, including:
 - i. A description of any process change;

- ii. A description of any equipment change, including both old and new equipment descriptions, model numbers, and serial numbers, or any other unique equipment ID number; and
 - iii. A description of any process material change.
 - b. The date and time that the change occurred.
 - c. The provision of A.A.C. R18-2-317.02.B that authorizes the change to be made with logging.
 - d. The date the entry was made and the first and last name of the person making the entry.
2. Logs shall be kept for 5 years from the date created. Logging shall be performed in indelible ink in a bound log book with sequentially number pages, or in any other form, including electronic format, approved by the Director.

XVIII. TESTING REQUIREMENTS

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

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

B. Operational Conditions During Testing

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

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

D. Test Plan

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

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

E. Stack Sampling Facilities

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

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

F. Interpretation of Final Results

Each performance test shall consist of three separate runs using the applicable test method. Each run shall be conducted for the time and under the conditions specified in the applicable standard. For the purpose of determining compliance with an applicable standard, the arithmetic mean of the results of the three runs shall apply. In the event that a sample is accidentally lost or conditions occur in which one of the three runs is required to be discontinued because of forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological conditions, or other circumstances beyond the Permittee's control, compliance may, upon the Director's approval, be determined using the arithmetic mean of the results of the other two runs. If the Director or the Director's designee is present, tests may only be stopped with the Director's or such designee's approval. If the Director or the Director's designee is not present, tests may only be stopped for good cause. Good cause includes: forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological conditions, or other circumstances beyond the Permittee's control. Termination of any test without good cause after the first run is commenced shall constitute a failure of the test. Supporting documentation, which demonstrates good cause, must be submitted.

G. Report of Final Test Results

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

XIX. PROPERTY RIGHTS

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

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

XX. SEVERABILITY CLAUSE

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

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.

XXI. PERMIT SHIELD

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

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 XVI.B of this Attachment and any facility changes without a permit revision pursuant to Section XVII of this Attachment.

XXII. PROTECTION OF STRATOSPHERIC OZONE

[40 CFR Part 82]

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

XXIII. APPLICABILITY OF NSPS/NESHAP GENERAL PROVISIONS

[40 CFR Part 60, Part 63]

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.

ATTACHMENT "B": SPECIFIC CONDITIONS

I. FACILITY WIDE REQUIREMENTS

A. Operating Limitations

1. The Permittee shall have on site or on call a person certified in EPA Reference Method 9 unless all 6- minute Method 9 observations required by this permit are conducted as a 6-minute Alternative Method-082 (Digital Camera Operating Technique) and all instantaneous visual surveys required by this permit are conducted as an instantaneous Alt-082 camera survey. Any 6-minute Method 9 observation required by this permit can be conducted as a 6-minute Alternative Method-082 and any instantaneous visual survey required by this permit can be conducted as an instantaneous Alt-082 camera survey. The results of any 6-minute observation or instantaneous survey completed using a camera shall be obtained within 30 minutes of completing the 6-minute observation or instantaneous camera survey.

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

2. The Permittee shall operate all equipment identified in Attachment "C" in accordance with manufacturer supplied operations and maintenance instructions. If vendor-supplied operations and maintenance instructions are not available, the Permittee shall prepare an Operation and Maintenance Plan, which provides adequate information to properly operate and maintain the equipment in good working order. In the absence of vendor-supplied operations and maintenance instructions, the Permittee shall operate the equipment in accordance with the Operation and Maintenance Plan.

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

B. Recordkeeping and Reporting Requirements

1. The Permittee shall maintain, on-site, records of the manufacturer supplied operations and maintenance instructions or Operation and Maintenance Plan for minimizing emissions for all equipment identified in Attachment "C".
2. The Permittee shall submit reports of all monitoring activities required in Attachment "B" along with the compliance certifications required by Section VII of Attachment "A."

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

II. METALLIC MINERAL PROCESSING

This Section applies to the primary crushers, secondary crushers, tertiary crushers, conveyor transfer belts, screens, tertiary surge bin, fine ore bin in crushing plants; feeder belts and ball mill feed conveyors belts in concentrator circuit; moly dryer; and miscellaneous sample crushers.

A. Particulate Matter

1. Emission Limitations/Standards

a. The Permittee shall not cause, allow or permit the discharge of particulate matter into the atmosphere in any one-hour from any process source subject to the provisions of this Section 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 30 tons per hour or less, the maximum allowable emissions shall be determined by the following equation:

$$E = 3.5P^{0.62}$$

Where:

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

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

[Arizona State Implementation Plan R9-3-521.A.2]

(2) For process sources having a process weight rate greater than 30 tons per hour, the maximum allowable emissions shall be determined by the following equation:

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

Where E and P are defined as indicated in II.A.1.a(1) above.

[Arizona State Implementation Plan R9-3-521.A.2]

b. 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 emissions of particulate matter.

[A.A.C. R18-2-721.D]

c. *The Permittee shall not cause or allow to be emitted into the atmosphere from the stacks associated with wet scrubbers and the moly dryer stack, listed in Table 1, any gases which contain particulate matter less than 10 microns (PM₁₀) in excess of 18.47 pounds per hour.*

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

[Material Permit Conditions are indicated by underline and italics]

Table 1

| Emission Unit | Air Pollution Control Device | Dust Control Equipment ID | Equipment Controlled |
|---------------------------|-------------------------------------|----------------------------------|---|
| Primary Crusher Circuit | Wet Scrubbers | 15DC01 | Primary Crusher (71-20489), Bin (15BN01), Apron Feeder (15FE01), Belt No. 1 (15CV01) |
| | | 21DC01 | Conveyor Belts 2a, 2b, 2c |
| Secondary Crusher Circuit | Wet Scrubbers | 22DC03 | Tyrock Screens (22SC01, 02 and 03), Secondary Cone Crushers (1-7717, 2-7718, 3-7719) |
| | | 22DC04 | Tertiary Surge Bin (22BN01) |
| | | 22DC05 | Conveyor Belts (07CV001, 002, 003) |
| Tertiary Crusher Circuit | Wet Scrubbers | 22DC01 | Conveyor Belts (6a, 6b & 6c), Tertiary Cone Crushers (4-7720, 5-7721, 6-7722), Tyler screens (22SC04, 05, and 06) |
| | | 22DC02 | Conveyor Belts (6d, 6e & 6f), Tertiary Cone Crushers (7-7723, 8-7724, 9-7725), Tyler screens (22SC07, 08, and 09) |
| Conveyors | Wet Scrubber | 22DC06 | Conveyor Belts (07CV004, 07CV005) |
| Fine Storage Barn | Wet Scrubber | 23DC01 | Fine Ore Storage Barn (23BN01) |
| Concentrator Circuit | Wet Scrubbers | 23DC02 | Feeder belts 1 & 2 (23CV01, 02), BM Feed Conveyor Belt No 1 (23CV13) |
| | | 23DC03 | Feeder belts 3 & 4 (23CV03, 04), BM Feed Conveyor Belt No 2 (23CV14) |
| | | 23DC04 | Feeder belts 5 & 6 (23CV05, 06), BM Feed Conveyor Belt No 3 (23CV15) |
| | | 23DC05 | Feeder belts 7 & 8 (23CV07, 08), BM Feed Conveyor Belt No 4 (23CV16) |
| | | 23DC06 | Feeder belts 9 & 10 (23CV09, 10), BM Feed Conveyor Belt No 5 (23CV17) |
| | | 23DC07 | Feeder belts 11 & 12 (23CV11, 12), BM Feed Conveyor Belt No 6 (23CV18) |
| Moly Dryer | - | 35 DS 01 | Moly dryer (35CR01) |

2. Air Pollution Control Equipment

- a. The Permittee shall, to the extent practicable, operate and maintain wet scrubbers identified in Table 1 above to control particulate matter emissions from the associated equipment.
[A.A.C. R18-2-306.01.A and -331.A.3.e]
[Material Permit Conditions are indicated by underline and italics]
- b. The Permittee shall, to the extent practicable, operate and maintain electrostatic precipitators associated with the metallurgical laboratory to control particulate matter emissions from the associated equipment.
[A.A.C. R18-2-306.01.A and -331.A.3.e]
[Material Permit Conditions are indicated by underline and italics]
- c. The Permittee shall, to the extent practicable, operate and maintain water spray to control particulate matter emissions from the primary crusher, coarse ore pile, and pan feeders.
[A.A.C. R18-2-306.01.A and -331.A.3.e]
[Material Permit Conditions are indicated by underline and italics]
- d. The Permittee shall, to the extent practicable, operate and maintain the dust control units that apply a chemical surfactant to control particulate matter emissions from material transfer points at the Primary and Secondary Crushing areas.
[A.A.C. R18-2-306.A.2]

3. Testing Requirements

- a. Within six months of achieving maximum production capacity after restart of operations but no later than two years from the date of restart, the Permittee shall conduct performance tests on the stacks of each equipment listed in Table-1 above, in accordance with Section XVIII of Attachment "A" of this permit. The results for each unit will then converted to pounds per hour basis. The emission numbers from each unit will then be added to demonstrate compliance with the emission limit in Condition II.A.1.c above. After the initial demonstration, the performance tests shall be conducted annually.
[A.A.C R18-2-312]
- b. If the performance test for any equipment is conducted at a rate lower than the maximum capacity, the pounds per hour number from the performance test for that equipment shall be scaled up to reflect emissions at maximum capacity. These scaled up emission numbers shall, then, be used in Condition 'a' above to demonstrate compliance with the emission limit in Condition II.A.1.c.
[A.A.C R18-2-312]
- c. The Permittee shall determine compliance with the PM₁₀ standards in Condition II.A.1.c using EPA reference Method 201A.
[A.A.C. R18-2-312]

4. Monitoring, Record keeping and Reporting Requirements

- a. The Permittee shall calibrate, maintain and operate monitoring devices, which can be used to determine daily material throughput to individual process units.

[A.A.C. R18-2-306.A.3.c, A.A.C. R18-2-331.A.3.c]
[Material Permit Conditions are indicated by underline and italics]

- b. The Permittee shall record the dates and hours of operation of all material handling facilities.

[A.A.C. R18-2-721.F]

5. Permit Shield

Compliance with the conditions of this Part shall be deemed compliance with the following applicable provisions as of the issuance date of this permit: Arizona State Implementation Plan R9-3-521.A.2, A.A.C. R18-2-721.D, and A.A.C. R18-2-721.F

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

B. Opacity

1. Emission Limitations/Standards

- a. The opacity of any plume or effluent from any process source subject to the provisions of this Section shall not be greater than 20%.

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

- b. If the presence of uncombined water is the only reason for an exceedance of the visible emissions requirements in II.B.1.a above, the exceedance shall not constitute a violation of the applicable opacity limit.

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

2. Monitoring, Reporting and Recordkeeping Requirements

- a. A certified Method 9 observer shall conduct a bi-weekly (once every two weeks) visual survey of visible emissions from the stacks associated with the process sources covered by this Section when they are in operation. The Permittee shall keep a record of the name of the observer, the date on which the observation was made, and the results of the observation.

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

- b. If the observer sees a plume that on an instantaneous basis appears to exceed the standard opacity level, then the observer shall take a six-minute EPA Method 9 observation of the plume.

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

- c. If the six-minute opacity of the plume is less than the standard opacity, the observer shall make a record of the following:

- (1) Location, date, and time of the observation; and
- (2) The results of the Method 9 observation.

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

- d. If the six-minute opacity of the plume exceeds the applicable opacity standard, then the Permittee shall do the following:

- (1) Adjust or repair the controls or equipment to reduce opacity to or

below the standard level;

- (2) Report it as an excess emission for opacity; and
- (3) The observer shall make a record of:
 - (a) Location, date, and time of the observation;
 - (b) The results of the Method 9 observation;
 - (c) Date and time when corrective action was taken; and
 - (d) Type of corrective action taken.

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

3. Permit Shield

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

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

III. SOLUTION EXTRACTION/ ELECTROWINNING PROCESS (SX/EW), FILTRATION PLANT, MISCELLANEOUS STORAGE TANKS AND LIME CRUSHING PLANT

This Section is applicable to all the unclassified sources such as SX/EW, filtration plant, lime crushing plant, and miscellaneous storage tanks.

A. Particulate Matter

1. Emission Limitation and Standards

- a. The Permittee shall not cause or permit the emissions of particulate matter discharged into the atmosphere in any one hour from any unclassified process source 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 B.1 above.

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

- b. 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]

2. Permit Shield

Compliance with the conditions of this Part shall be deemed compliance with A.A.C. R18-2-730.A and B.

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

B. Opacity

1. Emission Limitation and Standards

The opacity of any plume from SX/EW process, filtration plant, lime crushing plant, and miscellaneous storage tanks shall not be greater than 20 percent.

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

2. Monitoring, Record keeping and Reporting Requirements

A certified EPA Reference Method 9 observer shall conduct a monthly survey of visible emissions emanating from SX/EW process, filtration plant, lime crushing plant, and miscellaneous storage tanks. If the opacity of the emissions observed appears to exceed the standard, the observer shall conduct a certified EPA Reference Method 9 observation. The Permittee shall keep records of the initial survey and any EPA Reference Method 9 observations performed. These records shall include the emission point observed, location of observer, name of observer, date and time of observation, and the results of the observation. If the observation results in an exceedance of the opacity limit contained in Condition.B.1 above, the Permittee shall take corrective action and log all such actions. Such exceedance

shall be reported as excess emissions in accordance with Condition XII.A.1 of Attachment "A".

3. Permit Shield

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

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

C. Volatile Organic Compounds (VOCs) and Other Miscellaneous Emissions

1. Emission Limitation and Standards

a. The Permittee shall not cause or permit the emission of gaseous or odorous materials from equipment and operations associated with the SX/EW process in such quantities or concentrations as to cause air pollution.

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

b. Materials including solvents or other volatile compounds, paints, acids, alkalies, and other chemicals utilized in the SW/EX process 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]

c. 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 owner or operator thereof 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]

d. The Permittee shall not allow sodium cyanide dust or dust from any other solid cyanide to be emitted from any location in such manner and amount that the concentration of such emissions into the ambient air at any occupied place beyond the premises on which the source is located exceeds 140 micrograms per cubic meter for any averaging period of eight hours.

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

2. Air Pollution Control Requirements

a. The Permittee shall use a low vapor pressure diluent or other effective means of controlling VOC emissions, as approved by the Director, in the solvent extraction process.

b. Permittee shall use one or more of the following methods to control emissions from the electrowinning tankhouse:

- (1) Foam
- (2) Blankets
- (3) Surfactants
- (4) Thermal retention balls
- (5) Other effective means of controlling sulfuric acid emissions approved by the Director.

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

[Material permit conditions are indicated by underline and italics]

3. Monitoring, Reporting and Recordkeeping Requirements

The Permittee shall maintain a record of all control measures used to limit emissions from the SX/EW process.

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

4. Permit Shield

Compliance with the conditions of this Part shall be deemed compliance with the following applicable provisions as of the issuance date of this permit: A.A.C. R18-2-730.D, F, G and J.

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

IV. FUEL-BURNING EQUIPMENT

A. Applicability

This section applies to the Moly Concentrate Dryer Heater, Change Room Boilers, Space Heaters, Hot Water Heater, Heaters for the Cathode Wash Tank, and Power Washers (Steam cleaners) listed in Attachment "C".

B. Fuel Limitations

1. The Permittee shall only fire low sulfur diesel fuel (less than 0.9% sulfur), unleaded gasoline, and propane as specified in various fuel burning equipment and washers and pumps listed in the Equipment List, Attachment C.

[A.A.C. R18-2-306.A.2 and -724.G]

2. Permit Shield

Compliance with this Part shall be deemed compliance with A.A.C. R18-2-724.G.

[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 fuel-burning operation into

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

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

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. R18-2-724.C.1]

- b. For purposes of this Section, 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 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 from any boiler to exceed 15%.

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

2. Monitoring, Recordkeeping, and Reporting

- a. The Permittee shall keep records of fuel supplier certifications to demonstrate compliance with the PM limit specified above. The certification shall contain information regarding the name of fuel supplier and lower heating value of the fuel. These records shall be made available to ADEQ upon request.

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

- b. A certified EPA Reference Method 9 observer shall conduct a monthly survey of visible emissions emanating from the stack of the fuel burning equipment. If the opacity of the emissions observed appears to exceed the standard, the observer shall conduct a certified EPA Reference Method 9 observation. The Permittee shall keep records of the initial survey and any EPA Reference Method 9 observations performed. These records shall include the emission point observed, location of observer, name of observer, date and time of observation, and the results of the observation.

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

- c. If the observation shows a Method 9 opacity reading in excess of 15%, the Permittee shall initiate appropriate corrective action to reduce the opacity below 15%. The Permittee shall keep a record of the corrective action performed.

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

- d. The Permittee shall report all 6-minute periods during which the visible emissions exceed 15 percent opacity, as required under Section XII of Attachment "A".

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

3. Permit Shield

Compliance with this Part 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]

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.

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

2. Monitoring, Recordkeeping, and Reporting

The Permittee shall keep records of fuel supplier certifications to demonstrate compliance with the sulfur content limit. The certification shall contain the sulfur content of the fuel and the method used to determine the sulfur content of the fuel.

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

3. Permit Shield

Compliance with this Part shall be deemed compliance with A.A.C. R18-2-724.E.
[A.A.C. R18-2-325]

E. National Emission Standards for Hazardous Air Pollutants (NESHAP) Requirements

1. Applicability

This Section is applicable to the equipment identified as NEHAP Subpart JJJJJ applicable in Equipment List, Attachment "C".

[40 CFR 63.11194]

2. Operating Requirements

a. The Permittee shall operate and maintain the fuel burning equipment, 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 does not require the Permittee to make any further efforts to reduce emissions if levels required by standards have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Director that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

[40 CFR 63.11205(a)]

- b. The Permittee shall conduct a performance tune-up of the affected boilers as detailed below:
- (1) Inspect the burner and clean or replace any components of the burner as necessary.
[40 CFR 63.11223(b)(1)]
 - (2) Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specification, if available.
[40 CFR 63.11223(b)(2)]
 - (3) Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly.
[40 CFR 63.11223(b)(3)]
 - (4) Maintain onsite and submit, if required by the Director/Administrator, a report containing the information of the type and amount of fuel used over the 12 months prior to the tune-up of the boiler and description of any corrective action taken as part of the tune-up of the boiler.
[40 CFR 63.11223(b)(6)]
 - (5) If the unit is not operating on the required date for a tune-up, the tune-up shall be completed within 30 days of startup.
[40 CFR 63.11223(b)(7)]
- c. The tune-up for the affected boilers with a heat input capacity of equal to or less than 5 million Btu per hour shall be completed once in every five years. Each five-year tune-up must be completed no more than 61 months after the previous tune-up.
[40 CFR 63.11223(e)]
- d. The Permittee may delay the burner inspection and inspection of the system controlling the air-to-fuel ration specified in Conditions IV.E.2.b (1) to (3) until the next scheduled unit shutdown, but the inspection of each burner shall be done at least once every 72 months.
[40 CFR 63.11223(e)]

3. Notification Requirements

The Permittee shall submit a signed statement in the Notice of Compliance Status report that indicates that the Permittee has conducted a tune up of the boiler.
[40 CFR 63.11214(b)]

V. EMERGENCY INTERNAL COMBUSTION ENGINES

A. General Operating Requirements

1. Hourly Limitation

- a. *The Permittee shall limit the hours of operation for each engine to no more than 400 hours in any rolling 12-month period.*

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

[Material permit conditions are indicated by underline and italics]

- b. *The Permittee shall install a non-resettable hour meter on each combustion ignition engine.*

[AA.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 italic]

2. Monitoring and Recordkeeping

The Permittee shall keep records of monthly totals of the hours of operation of each internal combustion engine. At the end of each month, the Permittee shall calculate and record a rolling 12-month total of the hours of operation.

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

B. Compression Ignition Engines not Subject to NSPS

1. Applicability

This section applies to all compression ignition engines listed in Attachment “C” other than those identified as “NSPS/NESHAP Applicable”.

2. Fuel Requirements

- a. The Permittee shall only fire low sulfur diesel (less than 0.9 percent by weight of sulfur) fuel in the emergency generators and water pumps.

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

- b. Recordkeeping

The Permittee shall record daily the sulfur content and lower heating value of the fuel being fired in the engine.

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

- c. Permit Shield

Compliance with this Part shall be deemed compliance with A.A.C. R18-2-719.H and A.A.C. R18-2-719.I.

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

3. Particulate Matter and Opacity

- a. Emissions Limitations and Standards

- (1) 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:

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

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]

- (2) For purposes of this Section, 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]

(3) Opacity

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

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

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

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

b. Monitoring, Record keeping, and Reporting Requirements

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

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

- (2) A certified EPA Reference Method 9 observer shall conduct a monthly survey of visible emissions emanating from the stack of the IC engines. If the opacity of the emissions observed appears to exceed the standard, the observer shall conduct a certified EPA Reference Method 9 observation. The Permittee shall keep records of the initial survey and any EPA Reference Method 9 observations performed. These records shall include the emission point observed, name of observer, date and time of observation, and the results of the observation.

- (3) If the observation results in a Method 9 opacity reading in excess of 40%, the Permittee shall report this to ADEQ as excess emission and initiate appropriate corrective action to reduce the opacity below 40%. The Permittee shall keep a record of the corrective action performed.

c. Permit Shield

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

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

4. Sulfur Dioxide

a. Emission Limitations and Standards

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

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

b. Monitoring, Recordkeeping, and Reporting

(1) The Permittee shall keep daily records of the sulfur content and lower heating value of the fuel being fired in the machine. The Permittee shall keep records of fuel supplier certifications to demonstrate compliance with the Condition V.B.2.a. The certification shall contain the sulfur content of the fuel and the method used to determine the sulfur content of the fuel. These records shall be made available to ADEQ upon request.

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

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

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

c. Permit Shield

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

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

C. Compression Ignition Internal Combustion Engines Subject to NSPS (CI ICE)

1. Applicability

This Section applies to internal combustion engines listed in Attachment “C” as applicable to “NSPS Subpart III”.

2. General Requirements

a. Operating Requirements

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

[40 CFR 60.4209(a), R18-2-306.A.3, -331.A.3.a]

[Material Permit Conditions are indicated by underline and italics]

- (2) The Permittee may operate the stationary ICE for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by Federal, State, or local government, the manufacturer, the vendor, or the insurance company associated with the engine.

[40 CFR 60.4211(f)]

- (3) Maintenance checks and readiness testing of such units is limited to 100 hours per year. The Permittee may petition the Administrator and the Director for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the Permittee maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency ICE beyond 100 hours per year. The Permittee may operate the emergency stationary ICE for up to 50 hours per year in non-emergency situations, but those 50 hours are counted towards the 100 hours per year provided for maintenance and testing.

[40 CFR 60.4211(f)]

- (4) *Operation of the CI ICE other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, is prohibited.*

[40 CF 60.4211(f), R18-2-331.A.3.a]

[Material permit conditions are indicated by underline and italics]

- (5) The Permittee shall operate and maintain the CI ICE and the control device according to the manufacturer's written instructions, over the entire life of the engine.

[40 CFR 60.4211(a), 60.4206 and A.A.C. R18-2-306.A.3]

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

[40 CFR 60.4211(a)]

- (7) The Permittee shall meet the applicable requirements of 40 CFR Part 89, 94 and 1068.

[40 CFR 60.4211(a)]

b. Permit Shield

Compliance with the conditions of this Part shall be deemed compliance with 40 CFR 60.4209(a), §60.4211(f), 40 CFR 60.4211(a) and 60.4206.

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

3. Fuel Requirements

- a. The Permittee operating a stationary CI ICE shall use diesel fuel that meets the requirements of non road diesel fuel listed in 40 CFR 80.510(b) and listed below:

- (1) Sulfur content: 15 ppm maximum; and

- (2) A minimum cetane index of 40 or a maximum aromatic content

of 35 volume percent.

[40 CFR 60.4207(b)]

- b. The Permittee operating a pre-2011 model year stationary CI ICE subject to this Attachment may petition the Administrator and the Director for approval to use remaining non-compliant fuel that does not meet the fuel requirements of paragraphs I.D.1 of this section beyond the dates required for the purpose of using up existing fuel inventories. If approved, the petition will be valid for a period of up to 6 months. If additional time is needed, the Permittee is required to submit a new petition to the Administrator and the Director.

[40 CFR 60.4207(c)]

- c. Permit Shield

Compliance with the conditions of this Part shall be deemed compliance with 40 CFR 60.4207(b), and 60.4207(c).

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

4. Emission Limitations and Standards

- a. The Permittee operating a new or modified or reconstructed emergency CI ICE shall comply with the emission standards listed in the corresponding applicable regulations for the same model year and cylinder displacement as stated in Table 2 below:

Table 2: Emission Standards for Emergency ICE

| Engine Type | Model Year | Displacement (Liters per cylinder) | Applicable regulations |
|-----------------------|----------------|------------------------------------|--|
| Non-Fire Pump Engines | Pre-2007 | Less than 10 | Table 1 of 40 CFR Part 60 Subpart III |
| | 2007 and Later | Less than 30 | New Non-road engines in 40 CFR 60.4202 |
| Fire Pump | All | Less than 30 | Table 4 of 40 CFR Part 60 Subpart III |

[40 CFR 60.4205(a), (b), (c),(f)]

- b. Permit Shield

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

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

5. Compliance Requirements

- a. The Permittee operating a pre-2007 model year stationary CI ICE or a CI fire pump manufactured prior to the model years in Table 3 of 40 CFR Part 60 Subpart III, shall demonstrate compliance according to one of the following methods:

- (1) Purchasing an engine certified according to 40 CFR Part 89 or 40 CFR Part 94, as applicable, for the same model year and maximum engine power. The engine must be installed and configured according to the manufacturer's specifications.
- (2) Keeping records of performance test results for each pollutant for a test conducted on a similar engine. The test must have been conducted using the same methods specified in this subpart and these methods must have been followed correctly.
- (3) Keeping records of engine manufacturer data indicating compliance with the standards.
- (4) Keeping records of control device vendor data indicating compliance with the standards.

[40 CFR 60.4211 (b)]

b. 2007 and later Year Stationary CI ICE

The Permittee operating a 2007 model year and later stationary CI ICE or a CI fire pump engine that is manufactured during or after the model year that applies to your fire pump engine power rating in Table 3 of 40 CFR Part 60, Subpart IIII, shall comply by purchasing an engine certified to the emission standards in §60.4205(b) or (c), as applicable, for the same model year and maximum (or in the case of fire pumps, NFPA nameplate) engine power. The engine must be installed and configured according to the manufacturer's specifications.

[40 CFR 60.4211 (c)]

c. Permit Shield

Compliance with the conditions of this Part shall be deemed compliance with 40 CFR 60.4211(b), §60.4211(c), §60.4211(e), §60.4211(g) and §60.4205(e).

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

6. Monitoring and Recordkeeping

[40 CFR 60.4214(b)]

- a. Starting with model years in Table 5 of 40 CFR Subpart IIII, the Permittee operating an emergency ICE that does not meet the standards applicable to non-emergency engines in the applicable model year, shall keep records of the operation of the engine in emergency and non-emergency service that are recorded through the non-resettable hour meter.
- b. The Permittee shall record the time of operation of the engine and the reason the engine was in operation during that time.
- c. The Permittee shall maintain a copy of engine certifications or other documentation demonstrating that each engine complies with the applicable standards in this Permit, and shall make the documentation available to ADEQ upon request.

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

d. Permit Shield

Compliance with the conditions of this Part shall be deemed compliance with 40 CFR 60.4214(b).

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

D. Compression Ignition Internal Combustion Engines (CI ICE) Subject To NESHAP Subpart ZZZZ

1. Applicability

This Section applies to internal combustion engines listed in the Equipment list table of Attachment “C” as applicable to “NESHAP Subpart ZZZZ”.

[40 CFR 63.6590(a)(1)(iii) and (a)(2)(iii)]

2. Operating Limitations

The Permittee shall comply with the following requirements on each Internal Combustion Engine (ICE):

- a. The Permittee shall change oil and filter every 1000 hours of operation or annually, whichever comes first. If the Permittee prefers to extend the oil change requirement, an oil analysis program described in Condition V.D.2.d shall be completed.

[40 CFR 63.6603(a); Table 2d of Subpart ZZZZ; 63.6625(i)]

- b. The Permittee shall inspect the air cleaner every 1,000 hours of operation or annually, whichever comes first;

[40 CFR 63.6603(a); Table 2d of Subpart ZZZZ]

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

[40 CFR 63.6603(a); Table 2d of Subpart ZZZZ]

- d. If the Permittee prefers to extend the oil change requirements specified in Condition V.D.2.a above, an oil analysis program shall be performed. The analysis program must at a minimum analyze the following three parameters: Total Base Number, viscosity and water content. The condemning limits for these parameters are as follows:

Total Base Number- changed less than 30 percent of Total Base Number of oil when new;

Viscosity - changed more than 20 percent from the viscosity of oil when new;

Water Content - changed more than 0.5 percent by volume.

If all of the above limits are not exceeded, the Permittee is not required to change the oil. If any of the above limits are exceeded, the Permittee shall change the oil within 2 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 operation of the engine.

[40 CFR 63.6625(i)]

3. Recordkeeping Requirements

a. The Permittee shall keep records of the maintenance conducted on each ICE that demonstrates operation and maintenance of the ICE in accordance with the maintenance plan.

[40 CFR 63.6655(e)]

b. The Permittee shall keep records of the parameters that are analyzed and the results of the oil analysis, if any, and the oil changes for the engine.

[40 CFR 63.6625(i)]

c. The Permittee shall, unless otherwise indicated, submit all reports required under this Attachment along with the annual compliance certification requirement specified in Attachment "A" of this general permit.

[40 CFR 63.6650(b)]

4. Permit Shield

Compliance with the conditions of this Section shall be deemed compliance with 40 CFR Part 63.6590 (a)(1)(iii), (a)(2)(iii), (c), 6595 (a)(1), 6603(a); 6605(a); 63.6625(i); 6650 (b), 6655(e) and Table 2d of 40 CFR subpart ZZZZ.

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

E. Spark Ignition (SI) Engines subject to NSPS Subpart JJJJ

1. Applicability

This Section is applicable to the SI engines identified in Equipment List, Attachment "C".

2. Fuel Requirements

The Permittee shall only use gasoline in the SI engines that meets the per gallon sulfur limit in 40 CFR 80.195.

[40 CFR 60.4235]

3. Emission Standards

a. The Permittee shall operate and maintain the stationary SI ICE such that it complies with the emission standards listed in Condition V.E.3.b below over the entire life of the engine.

[40 CFR 60.4234]

b. The Permittee operating a stationary SI ICE that commenced construction (date engine was ordered) or modified or reconstructed after June 12, 2006, and was manufactured on or after the date specified in the Table 3 below shall comply with the listed emission standard.

Table 3: Emission Standards for SI ICE

| Engine Rating | Manufacture Date | Applicable Regulation |
|---------------|--------------------------|-----------------------|
| < 25 HP | On or After July 1, 2008 | 40 CFR 60.4231(a) |

[40 CFR 60.4233(a)]

4. Compliance Requirements for SI ICE Less Than 25 HP

Certified SI ICE

The Permittee operating a stationary SI ICE manufactured after July 1, 2008 and subject to the emission standards specified in 40 CFR 60.4233(a), shall demonstrate compliance by purchasing an engine certified to the emission standards in 40 CFR 60.4231(a). In addition, the Permittee shall meet one of the requirements specified in Conditions V.E.4.a to c below:

[40 CFR 60.4243(a)]

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. 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 CFR 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 demonstrate compliance by keeping a maintenance plan and records of conducted maintenance and shall, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions.

[40 CFR 60.4243(a)(2)(i)]

c. Non-Certified SI ICE

The Permittee operating a non-certified stationary SI ICE shall perform an initial performance test per the testing requirements of 40 CFR 60.4244. If the stationary engine is rebuilt or undergoes major repair or maintenance, subsequent performance testing is required every 8,760 hours or 3 years, whichever comes first. 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)]

5. Recordkeeping and Reporting Requirements

The Permittee operating a stationary SI ICE must meet the following recordkeeping requirements:

[40 CFR 60.4245(a)]

- a. Records of all notifications submitted to comply with this Section and all documentation supporting any notification.
- b. Maintenance conducted on the engine.
- c. If the stationary SI ICE is a certified engine, documentation from the manufacturer that the engine is certified to meet the emission standards and information as required in 40 CFR Parts 90, 1048, 1054, and 1060, as applicable.
- d. If the stationary SI ICE is not a certified engine or is a certified engine operating in a non-certified manner and subject to §60.4243(a)(2), documentation that the engine meets the emission standards.

VI. NON-EMERGENCY CI INTERNAL COMBUSTION ENGINE SUBJECT TO NSPS III

A. Applicability

This Section applies to internal combustion engines listed in Attachment “C” as applicable to “NSPS Subpart III (Non-Emergency)”.

B. Emission Standards

1. For 2007 or later model year and engine displacement less than 30 liters per cylinders emission standards for new CI engines in 40 CFR 60.4201 for their 2007 model year and later stationary CI ICE, as applicable.

[40 CFR 60.4204(b)]

2. The Permittee shall operate and maintain stationary CI ICE that achieve the emission standards as required in Condition VI.B.1 over the entire life of the engine.

[40 CFR 60.4206]

C. Fuel Requirements

Permittee shall only use diesel fuel that meets the following requirements:

1. Sulfur content 15 ppm maximum
2. Cetane index of 40 minimum
3. Aromatic content of 35 percent by volume maximum

[40 CFR 60.4207(b)] [40 CFR 80.510(b)]

D. Compliance Requirements

Permittee shall comply with the emission standards specified in Condition VI.B.1 and all of the following:

1. Operate and maintain the stationary CI internal combustion engine and control device according to the manufacturer's emission-related written instructions;
2. Change only those emission-related settings that are permitted by the manufacturer;
3. Meet the requirements of 40 CFR parts 89, and/or 1068, as they apply; and
4. Comply by purchasing an engine certified to the emission standards in Condition VI.B.1 for the same model year and maximum engine power. The engine must be installed and configured according to the manufacturer's emission-related specifications.

[40 CFR 60.4211(a) & (c)]

A. Permit Shield

Compliance with the Conditions in this Section shall be deemed compliance with 40 CFR 60.42.4(b), 60.4206, 60.4207(b), 60.4211(a)&(c) and 80.510(b).

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

VII. GASOLINE STORAGE AND DISPENSING

A. Applicability

1. This Section applies to the following:

- a. Gasoline Dispensing Facilities (GDFs), Storage tanks at the GDFs listed in Equipment List, Attachment "C", associated equipment components in vapor or liquid gasoline service, pressure/vacuum vents on gasoline storage tanks, and equipment necessary to unload product from cargo tanks into storage tanks at GDFs. The equipment used for the refueling of motor vehicles is not covered.

[40 CFR 63.11111 (a), (b), & (c), and 63.11112(a)]

- b. Each gasoline cargo tank during the delivery of product to a GDF.

[40 CFR 63.11111(a)]

2. Definition of Monthly Throughput

Monthly throughput means the total volume of gasoline that is loaded into, or dispensed from, all gasoline storage tanks at each GDF during a month. Monthly throughput is calculated by summing the volume of gasoline loaded into, or dispensed from, all gasoline storage tanks at each GDF during the current day, plus the total volume of gasoline loaded into, or dispensed from, all gasoline storage tanks at each GDF during the previous 364 days, and then dividing that sum by 12.

[40 CFR 63.11132]

B. Operating Requirements

1. The Permittee shall at all times, operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for

minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator 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)]

2. 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:

- 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 gasket 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.

[40 CFR 63.11117(a)]

3. Submerged Fill Pipes

- a. The Permittee shall only load gasoline into storage tanks by utilizing submerged fill pipes that are no more than 12 inches from the bottom of the storage tank.
- b. If the submerged fill pipes do not meet the specifications specified above, the Permittee shall demonstrate that the liquid level in the tank is always above the entire opening of the fill pipe. Documentation providing such demonstration must be made available for inspection by the Director or Administrator's delegated representative during the course of a site visit.

[40 CFR 63.11116(b)]

4. If any GDF referenced above increases the monthly throughput over 100,000 gallons per month, the Permittee shall comply with new applicable provisions of Subpart CCCCCC within 3 years of the GDF unit becoming subject to the new requirements.

[40 CFR 63.11113(c)]

5. All gasoline storage tanks shall be equipped with a submerged filling device, or acceptable equivalent, for the control of hydrocarbon emissions.

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

6. All pumps and compressors which handle volatile organic compounds (VOCs) shall be equipped with mechanical seals or other equipment of equal efficiency to prevent the release of organic contaminants into the atmosphere.

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

C. Recordkeeping Requirements

1. The Permittee shall maintain monthly record of the gasoline throughput of each

GDF as specified in Condition VII.A.

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

2. The Permittee shall have records available within 24 hours of request by the Director or Administrator documenting the gasoline throughput.
[40 CFR 63.11117(d)]
3. The Permittee shall, for the gasoline storage tanks, maintain a file of the typical Reid vapor pressure of gasoline stored and of dates of storage. Dates on which the storage vessel is empty shall be shown.
[A.A.C. R18-2-710.E.1]
4. If the gasoline stored has a true vapor pressure greater than 470 mm Hg (9.1 psia), the Permittee shall record the average monthly temperature, and true vapor pressure of gasoline at such temperature.
[A.A.C. R18-2-710.E.2.b]
5. If Condition VII.C.4 above becomes applicable, the average monthly storage temperature shall be an arithmetic average calculated for each calendar month, or portion thereof, if storage is for less than a month, from bulk liquid storage temperature determined at least once every seven days.
[A.A.C. R18-2-710.E.3]
6. The true vapor pressure shall be determined by the procedures in American Petroleum Institute Bulletin 2517, amended as of February 1980 (and no future editions), which is incorporated herein by reference and on file with the Office of the Secretary of State. This procedure is dependent upon determination of the storage temperature and the Reid vapor pressure, which requires sampling of the petroleum liquids in the storage vessels. Unless the Director requires in specific cases that the stored petroleum liquid be sampled, the true vapor pressure may be determined by using the average monthly storage temperature and the typical Reid vapor pressure. For those liquids for which certified specifications limiting the Reid vapor pressure exist, the Reid vapor pressure may be used. For other liquids, supporting analytical data must be made available upon request to the Director when typical Reid vapor pressure is used.
[A.A.C. R18-2-710.E.4]

D. Permit Shield

Compliance with the conditions of this Section shall be deemed compliance with A.A.C. R18-2-710.B, D, E.1, E.2.b, E.3 and E.4, 40 CFR 63.11111(a), 40 CFR 63.11112(a), 40 CFR 63.11116(a), 40 CFR 63.11116(b), 40 CFR 63.11130 and 40 CFR 63.11132.

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

VIII. FUGITIVE DUST REQUIREMENTS

A. Applicability

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

B. Particulate Matter and Opacity

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

1. Emission Limitations/Standards

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

[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]

- (9) Operate mineral tailings piles by taking reasonable precautions to prevent excessive amounts of particulate matter from becoming airborne. Reasonable precautions shall mean wetting, chemical stabilization, revegetation or such other measures as are approved by the Director.

[A.A.C R18-2-608]

2. Air Pollution Control Requirements

Haul Roads and Storage Piles

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

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

[Material Permit Condition is indicated by underline and italics]

3. Monitoring and Recordkeeping Requirements

- a. The Permittee shall maintain records of the dates on which any of the activities listed in Conditions VIII.B.1.b.(1) through VIII.B.1.b.(9) above were performed and the control measures that were adopted.

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

b. Opacity Monitoring Requirements

- (1) A certified Method 9 observer shall conduct a bi-weekly (once every two weeks) instantaneous visual survey (one observation) of visible emissions from the fugitive dust sources. The Permittee shall keep the field record and observation record (Examples at 40 CFR Part 60 Appendix A-4, Figure 9-1 and 9-2) required by Method 9 including the name of the observer, the date and location on which the observation was made, and the results of the instantaneous observation.

- (2) If the observer sees a visible emission from a fugitive dust source that on an instantaneous basis appears to exceed an applicable opacity standard, then the observer shall, as soon as practicable, complete a six-minute Method 9 observation of the visible emissions. The Permittee shall keep the field record and observation record (Examples at 40 CFR Part 60 Appendix A-4, Method 9, Figure 9-1 and 9-2) required by Method 9 including the name of the observer, the date and location on which the observation was made, and the results of the 6-minute observation.

- (a) If the six-minute opacity of the visible emission is less than or equal to an applicable opacity standard, the Permittee does not have to take further action.

- (b) If the six-minute opacity of the visible emission exceeds an applicable opacity standard, then the Permittee shall do

the following:

- (i) Adjust or repair the controls or equipment to reduce opacity to below the applicable standard;
- (ii) Report it as an excess emission under Section XII.A of Attachment "A"; and
- (iii) Repeat the 6-minute Method 9 observation to document the effectiveness of the adjustments or repairs completed.

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

4. Permit Shield

Compliance with the conditions of this Section shall be deemed compliance with A.A.C. R18-2-604.A, A.A.C. R18-2-604.B, A.A.C. R18-2-605, A.A.C. R18-2-606, A.A.C. R18-2-607, A.A.C. R18-2-608 and A.A.C. R18-2-612.

IX. MOBILE SOURCE REQUIREMENTS

A. Applicability

The requirements of this Section are applicable to mobile sources which either move while emitting air contaminants or are frequently moved during the course of their utilization but are not classified as motor vehicles, agricultural vehicles, or agricultural equipment used in normal farm operations. Mobile sources shall not include portable sources as defined in A.A.C. R18-2-101.108.

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

B. Particulate Matter and Opacity

1. Emission Limitations/Standards

a. Off-Road Machinery

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

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

b. Roadway and Site Cleaning Machinery

- (1) The Permittee shall not cause, allow or permit to be emitted into the atmosphere from any roadway and site cleaning machinery smoke or dust for any period greater than ten consecutive seconds, the opacity of which exceeds 40%. Visible emissions when starting cold equipment shall be exempt from this requirement for

the first ten minutes.

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

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

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

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

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

2. Recordkeeping Requirement

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

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

3. Permit Shield

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

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

X. OTHER PERIODIC ACTIVITIES

A. Abrasive Blasting

1. Particulate Matter and Opacity

a. Emission Limitations/Standards

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

- (1) wet blasting;
- (2) effective enclosures with necessary dust collecting equipment; or
- (3) any other method approved by the Director.

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

b. Opacity

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

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

2. Monitoring and Recordkeeping Requirement

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

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

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

3. Permit Shield

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

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

B. Use of Paints

1. Volatile Organic Compounds

a. Emission Limitations/Standards

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

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

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

- (a) Employ, apply, evaporate, or dry any architectural coating containing photochemically reactive solvents for industrial or commercial purposes; or
- (b) Thin or dilute any architectural coating with a photochemically reactive solvent.
[A.A.C.R18-2-727.B]

- (3) For the purposes of Condition X.B.1.a.(2) 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 Conditions X.B.1.a.(3)(a) through X.B.1.a.(3)(c) below, or which exceeds any of the following percentage composition limitations, referred to the total volume of solvent:

- (a) A combination of the following types of compounds having an olefinic or cyclo-olefinic type of unsaturation-

hydrocarbons, alcohols, aldehydes, esters, ethers, or ketones: 5 percent.

- (b) A combination of aromatic compounds with eight or more carbon atoms to the molecule except ethylbenzene: 8 percent.
- (c) A combination of ethylbenzene, ketones having branched hydrocarbon structures, trichloroethylene or toluene: 20 percent.

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

- (4) Whenever any organic solvent or any constituent of an organic solvent may be classified from its chemical structure into more than one of the groups of organic compounds described in Conditions X.B.1.a.(3)(a) through X.B.1.a.(3)(c) above, it shall be considered to be a member of the group having the least allowable percent of the total volume of solvents.

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

b. Monitoring and Recordkeeping Requirements

- (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 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 X.B.1.b(1) above.

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

c. Permit Shield

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

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

2. Opacity

a. Emission Limitation/Standard

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

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

b. Permit Shield

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

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

C. Demolition/Renovation - Hazardous Air Pollutants

1. Emission Limitation/Standard

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

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

2. Monitoring and Recordkeeping Requirement

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

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

3. Permit Shield

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

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

**ATTACHMENT "C": EQUIPMENT LIST
Air Quality Control Permit No. 65025
For
Pinto Valley Mining Corp. – Pinto Valley Mine**

| Type of equipment | Capacity | Make / Model No. | Pollution Control | Equipment Number | Serial Number | Date of Manufacture | NSPS/NESHAP Applicable |
|---------------------------------|----------------------------------|--------------------------|-------------------|---|---------------------------|---------------------|------------------------|
| PRIMARY CRUSHING CIRCUIT | | | | | | | |
| Primary Crusher | 4000 tph | Traylor | 15DC01 | 15CR01 | NA | 1974 | NA |
| Coarse Ore Bin (Surge Pocket) | 800 tons | NA | 15DC01 | 15CR01 | NA | 1973 | NA |
| Feeder Apron | 4,500 tph | NA | 15DC01 | 15FE01 | NA | 1974 | NA |
| Conveyor Belt | 4,500 tph | Continental | 15DC01 | 15CV01 | NA | 1973 | NA |
| Conveyor Belts (3 Nos.) | 1,500 tph each | Continental | 21DC01 and 21DC01 | 21CV01, 21CV02, and 21 CV03 | NA | 1973 | NA |
| Feeder Apron (6 Nos.) | 4,500 tph | NA | 21DC01 | 21FE01 to 21FE06 | NA | 1973 | NA |
| Wet Scrubber | 110-125 gpm, 17" wg, 11,500 acfm | Filter Tech/ V15HSC11.5 | NA | 15DC01 | NA | 2007 | NA |
| Dust Control Surfactant | 1,000 Gallons each, 40 gpm | Martin Engineering/ DC U | NA | 15-DCU-01 (with 15-TK-11 tank) and 22-DCU-05 (with 22-TK-15 tank)NA | 1306277944 and 1306278135 | 2013 | NA |
| Automated Dust Control Unit | 40 gpm | Martin Engineering/ DC U | NA | 15-TK-11 | 1306277944 | 2013 | NA |
| Wet Scrubber | 150 gpm, 29,400 acfm | Ducon | NA | 21DC01 | NA | 1974 | NA |



| Type of equipment | Capacity | Make / Model No. | Pollution Control | Equipment Number | Serial Number | Date of Manufacture | NSPS/NESHAP Applicable |
|-------------------------------------|----------------|--|---|-------------------------------|---------------|---------------------|------------------------|
| SECONDARY CRUSHING CIRCUIT | | | | | | | |
| Conveyor Belt (3 Nos.) | 5,000 tph each | Continental/ City Services | 22DC05 | 22CV01, 22CV02, and 22CV03 | NA | 1980 | NA |
| Automated Dust Control Unit | 40 gpm | Martin Engineering/ DC U | NA | 22-TK-11 | NA | 2013 | NA |
| Screens (3 Nos.) | 669 tph each | Tyler/ Tyrock Double Deck 8' x 20' | 21DC01 and 22DC01 | 22SC01, 22SC02, and 22SC03 | NA | 1973 | NA |
| Standard Crushers (3 Nos) | 1,500 tph each | Symons Noreburg | 22DC01 | 22CR01, 22CR02, and 22CR03 | NA | 1980 | NA |
| Conveyor Belts (6 Nos.) | 669 tph each | NA | 22DC02 and 22DC03 | 22CV06 through 22CV11 | NA | 1973 | NA |
| Screens (6 Nos.) | 669 tph each | Tyler / Tyrock Double Deck 8' X20' | 21DC01 and 22DC02 | 22SC04 through 22SC09 | NA | 1973 | NA |
| Tertiary Cone Crushers (3 Nos) | 3,000 tph each | Symons Noreburg | 22DC02 | 22CR04, 22CR05, and 22CR06 | NA | 1980 | NA |
| Tertiary Cone Crushers (3 Nos) | 3,000 tph each | Symons Noreburg | 22DC03 | 22CR07, 22CR08, and 22CR09 | NA | 1980 | NA |
| Conveyor Belts | 4,500 tph | Continental | 22DC01, 22DC02, 22DC03, and 22DC06 | 22CV04 | NA | 1990 | NA |
| Conveyor Belts | 4,500 tph | Continental | 22DC06 | 22CV05 | NA | 1973 | NA |
| Tertiary Surge Bin | 2,000 tons | NA | 22DC04 | 22BN01 | NA | 1973 | NA |
| Tripper Car | 5,349 tons | NA | 22DC04 | 22CV031M | NA | 1973 | NA |
| Fine Ore Storage Bin Tripper Car | 4,500 tons | NA | 23DC01 | 22CV051M | NA | 1973 | NA |

| Type of equipment | Capacity | Make / Model No. | Pollution Control | Equipment Number | Serial Number | Date of Manufacture | NSPS/NESHAP Applicable |
|-----------------------------------|-------------------------|------------------------------|-------------------|-------------------|---------------|---------------------|------------------------|
| Wet Scrubber | 200 gpm, 38,400 acfm | Ducon | NA | 22DC01 | NA | 1974 | NA |
| Wet Scrubber | 200 gpm, 38,400 acfm | Ducon | NA | 22DC02 | NA | 1974 | NA |
| Wet Scrubber | 200 gpm, 38,400 acfm | Ducon | NA | 22DC03 | NA | 1974 | NA |
| Wet Scrubber | 150 gpm, 38,400 acfm | Ducon | NA | 22DC04 | NA | 1974 | NA |
| Wet Scrubber | 250-275, 13,500 acfm | Filter Tech/ V15HSC13.5 | NA | 22DC05 | NA | 1974 | NA |
| Wet Scrubber | 200 gpm, 38,400 acfm | Filter Tech/ V15HSC10.0 | NA | 22DC06 | NA | 1974 | NA |
| CONCENTRATOR CIRCUIT | | | | | | | |
| Fine Ore Storage Bin | 100,000 tons | NA | 23DC01 | 23BN01 | NA | 1973 | NA |
| Wet Scrubber | 250-275, 13,500 acfm | Filter Tech/ V15HSC25.5 | NA | 23DC01 | NA | 1974 | NA |
| Feeder Belts (12) | 500 tph each | NA | 23DC 02-07 | 23CV01 through 12 | NA | 1974 | NA |
| Ball Mill Feed Conveyor Belts (6) | 500 tph each | NA | 23DC 02-07 | 23CV13 through 18 | NA | 1974 | NA |
| Wet Scrubber | 250-275, 13,500 acfm | Fisher-Klosterman/ MS300H | NA | 23DC02 | NA | 1981 | NA |
| Wet Scrubber | 20" wc | Fisher-Klosterman/ MS300H | NA | 23DC03 | NA | 1981 | NA |
| Wet Scrubber | 20" wc | Fisher-Klosterman/ MS300H | NA | 23DC04 | NA | 1981 | NA |

| Type of equipment | Capacity | Make / Model No. | Pollution Control | Equipment Number | Serial Number | Date of Manufacture | NSPS/NESHAP Applicable |
|---|---------------|------------------------------------|-------------------|------------------|-----------------|---------------------|------------------------|
| Wet Scrubber | 20" wc | Fisher-Klosterman/MS300H | NA | 23DC05 | NA | 1981 | NA |
| Wet Scrubber | 20" wc | Fisher-Klosterman/MS300H | NA | 23DC06 | NA | 1981 | NA |
| Wet Scrubber | 20" wc | Fisher-Klosterman/MS300H | NA | 23DC07 | NA | 1981 | NA |
| MOLYBDENUM CIRCUIT | | | | | | | |
| Moly Dryer | 1,500 tpy | NA | NA | 35DR01 | 0714-3 | 1974 | NA |
| Wet Scrubber | 650 scfm | Fisher Klosterman / MS120H | NA | 35DS01 | NA | 1995 | NA |
| FUEL BURNING EQUIPMENT – BOILERS AND PROCESS HEATERS | | | | | | | |
| Moly conc. Dryer Boiler (Diesel) | 1.03 MMBtu/hr | First Thermal Systems / 50-2-1 HHC | NA | 35DR013 | NA | 1994 | NESHAP Subpart JJJJJ |
| Mill Change Room Boiler (Diesel) (Hot Water) | 1.40 MMBtu/hr | Ajax/ WOFD 1500 | NA | 13-BO-01 | NA | 1974 | NESHAP Subpart JJJJJ |
| Lower Change Room Boiler (Diesel) (Hot Water) | 2.70 MMBtu/hr | Ajax/ WOFD 2750 | NA | 12-BO-01 | NA | 1974 | NESHAP Subpart JJJJJ |
| Heaters, Cathode Wash, SXEW (Propane) | 0.42 MMBtu/hr | AO Smith/ HW420993 | NA | 105WH01A | 1250M0017 37 | 2012 | NA |
| Heaters, Cathode Wash, SXEW (Propane) | 0.42 MMBtu/hr | AO Smith/ HW420993 | NA | 105WH01B | 1334M0032 3 | 2003 | NA |



| Type of equipment | Capacity | Make / Model No. | Pollution Control | Equipment Number | Serial Number | Date of Manufacture | NSPS/NESHAP Applicable |
|--|--|-----------------------------------|------------------------------|------------------|-------------------|---------------------|------------------------|
| Space Heater (Propane) | 0.65 MMBtu/hr | Sunstar/ G6-N5A | NA | NA | NA | 2008 | NA |
| Hot Water Heater, SXEW (Propane) | 0.74 MMBtu/hr | AO Smith/ Masterfit BTR 365 A 111 | NA | E06M006098 | 105419 | 2006 | NA |
| Truck Wash Power Washer (Diesel) (Steam Cleaner; 2 Nos.) | 0.36 MMBtu/hr | Souix/ 360 H | NA | NA | 118883 and 118975 | 2010 | NESHAP Subpart JJJJJ |
| SOLVENT EXTRACTION – ELECTROWINNING CIRCUIT | | | | | | | |
| Mixer Settler Tanks | 23,973 sq. ft. | NA | NA | 104MX01-06 | NA | 1981 | NA |
| Raffinate Pond | 32,280 sq. ft. | NA | NA | 104PD01 | NA | 1981 | NA |
| Electrowinning Cells | 16,500 sq. ft. | NA | Demisting balls and blankets | 104-CL-01, 02 | NA | 1981 | NA |
| LIME CRUSHING PLANT | | | | | | | |
| Ball Mill | 7.5 tph | Denver | NA | 41ML01 | NA | 1974 | NA |
| Screw Lime Bin Feed | 7.5 tph | Pacific | NA | 41CV01 | NA | 1974 | NA |
| Lime Bin Feed Discharge | 7.5 tph | Pacific | NA | 41CV02 | NA | 1974 | NA |
| Screw Line Storage | 7.5 tph | Pacific | NA | 41CV05 | NA | 1974 | NA |
| Lime Elevator | 7.5 tph | Linkbelt | NA | 41CV03 | NA | 1974 | NA |
| Dry Lime Storage Tank and Lime Plant | 240 tons | NA | 41DC01 | 41-TK-19 | NA | NA | NA |
| Dry Lime Storage Tank Dust Collector | 1200 CFM @ 5 Inches SP / 99.99% Control Efficiency | FARR Gold Series Model: GS4 | NA | 41DC01 | E9108001 | 2016 | NA |

| Type of equipment | Capacity | Make / Model No. | Pollution Control | Equipment Number | Serial Number | Date of Manufacture | NSPS/NESHAP Applicable |
|------------------------------------|---------------------|--------------------------|-------------------|------------------|---------------|---------------------|----------------------------------|
| METALLURGICAL LABORATORY | | | | | | | |
| Jaw Crusher | 4"X6" | Massco | 31DC01-1 | 31820 | NA | 1974 | NA |
| Cone Crusher | Size 10 | Massco | 31DC01-1 | 1205 | NA | 1974 | NA |
| Boyd Crusher Combo | 4" | Rocklabs | 31DC01-1 | 1463 | NA | 2007 | NA |
| Hydrostatic Precipitator | 4,061 scfm | AAF, Rotoclone Type N | NA | 31DC01-1 | N120021 | 2007 | NA |
| Hydrostatic Precipitator | 4,061 scfm | AAF, Rotoclone Type N | NA | 31DC01-2 | N120020 | 2007 | NA |
| Hydrostatic Precipitator | 4,061 scfm | AAF, Rotoclone Type N | NA | 31DC01-3 | N780107 | 1974 | NA |
| Workbench with Hood (3) | 700 cfm | NA | 31DC01-2 | NA | NA | NA | NA |
| Workbench with Hood (1) | 700 cfm | NA | 31DC01-3 | NA | NA | NA | NA |
| INTERNAL COMBUSTION ENGINES | | | | | | | |
| Cottonwood Seepage Generator | 43 KVA (46 hp) | John Deere | NA | 680 | CD4093D21 264 | 1994 | NESHAP Subpart ZZZZ |
| No. 1 Seepage Generator | 250 KVA (268 hp) | Caterpillar/ C9 | NA | 846 | G5A04323 | 2010 | NSPS Subpart III |
| Gold Gulch 1A Generator | 128 KVA (137 hp) | Detroit Diesel/ 100D560 | NA | 884 | 365406 | 2009 | NSPS Subpart III |
| Gold Gulch 2 Generator | 31.25 KVA (33.5 hp) | NA | NA | 682 | 6800514926 | 1994 | NESHAP Subpart ZZZZ |
| Canyon Dam Gen | 330 hp | Detroit Diesel/ 10637305 | NA | 681 | 7A42758 | 1994 | NESHAP Subpart ZZZZ |
| SSRX Diesel Generator (Pit) | 12 hp | Yanmar/2TNV70 | NA | NA | NA | 2012 | NSPS Subpart III (Non-Emergency) |



| Type of equipment | Capacity | Make / Model No. | Pollution Control | Equipment Number | Serial Number | Date of Manufacture | NSPS/NESHAP Applicable |
|--|----------------|---------------------------------------|-------------------|------------------|-------------------------|---------------------|-----------------------------------|
| WASHERS AND PUMPS | | | | | | | |
| Mill Fire Water –Slurry Pump House (Diesel) | 340 hp | John Deere/6068HFC-48 | NA | NA | PE6068L27 1-614 | 2015 | NSPS Subpart IIII |
| Tule Pond Pump (Diesel) | 322 hp | Caterpillar/ 3406 | NA | 670 | 6TB13204 | 1994 | NESHAP Subpart ZZZZ |
| Upper Catchment Pump (Diesel) | 275 hp | Caterpillar/ 3208 | NA | 1022 | 93Z10511 | 1973 | NESHAP Subpart ZZZZ |
| Baker Pond Pump (Diesel) | 52 hp | KHD Deutz F4L912 GEN | NA | 71PP59 | NA | 1998 | NESHAP Subpart ZZZZ |
| Landa Power Washer-Gasoline Fired Pump Engine (Mine) | 9 hp | Honda /GX 630 | NA | NA | NA | 2012 | NSPS Subpart JJJJ |
| Landa Power Washer-Heater Diesel – Oil Burner (Mine) | 0.385 MMBtu/hr | Winco/ R.W. Beckett Corp. | NA | NA | 158023L12/ 121107-05078 | 2012 | NESHAP Subpart JJJJJ |
| Hotsy Power Washer-Gasoline Fired Pump Engine (Mine) | 9 hp | Honda / Euro 2 | NA | NA | NA | 2012 | NSPS Subpart JJJJ |
| Hotsy Power Washer-Heater Diesel – Oil Burner (Mine) | 0.398 MMBtu/hr | Hotsy/ 1280SSG | NA | NA | 11105370-161755 | 2012 | NESHAP Subpart JJJJJ |
| Pit Dewater Pump MP1 (Diesel) | 512 hp | John Deere/ PP86C211L2-6135HF485(512) | NA | MP1 | RG6135L02 9709 | 2014 | NSPS Subpart IIII (Non-Emergency) |
| Pit Dewater Pump MP2 (Diesel) | 512 hp | John Deere/ PP86C211L2-6135HF485(512) | NA | MP2 | RG6135L02 9708 | 2014 | NSPS Subpart IIII (Non-Emergency) |
| Pit Dewater Pump MP3 (Diesel) | 512 HP | John Deere/6090HF485 | NA | MP3 | RG6090L12 1386 | 2014 | NSPS Subpart IIII (Non-Emergency) |

| Type of equipment | Capacity | Make / Model No. | Pollution Control | Equipment Number | Serial Number | Date of Manufacture | NSPS/NESHAP Applicable |
|---|------------|----------------------|-------------------|------------------|---------------|---------------------|----------------------------------|
| Tailings Storage Facility 3 (TSF3) Reclaim Pump | 513 HP | John Deere/6135HF485 | NA | TBD | RG6135L029799 | 2014 | NSPS Subpart III (Non-Emergency) |
| Canyon Dam Pump (Diesel) | 174 hp | Perkins | NA | 678 | NA | 2008 | NSPS Subpart III |
| GASOLINE STORAGE TANKS | | | | | | | |
| Gasoline Tank | 10,000 GAL | NA | NA | 135-TK-25 | NA | 1994 | NESHAP Subpart CCCCC |
| MISCELLANEOUS EQUIPMENT | | | | | | | |
| Prill Silo | 45 tons | NA | NA | NA | NA | 1973 | NA |
| MISCELLANEOUS STORAGE TANKS | | | | | | | |
| Barren Organic Surge Tank-SXEW Circuit | 95,200 GAL | NA | NA | 103-TK-01 | NA | NA | NA |
| Diluent Storage Tank-SXEW | 30,400 GAL | NA | NA | 103-TK-02 | NA | NA | NA |
| Organic Makeup Tank-SXEW Circuit | 11,400 GAL | NA | NA | 103-TK-03 | NA | NA | NA |
| Organic Holding Tank-SXEW Circuit | 95,200 GAL | NA | NA | 103-TK-04 | NA | NA | NA |
| Organic Recovery Tank- SXEW Circuit | 7,000 GAL | NA | NA | NA | NA | NA | NA |
| Gunk Tank- SXEW Circuit | 15,200 GAL | NA | NA | 103-TK-05 | NA | NA | NA |
| Gunk Cone Tank-SXEW Circuit | 7,000 GAL | NA | NA | NA | NA | NA | NA |
| Electrolyte Filter Tank-SXEW Circuit | 2,100 GAL | NA | NA | 103-FL-01 (9226) | NA | NA | NA |



| Type of equipment | Capacity | Make / Model No. | Pollution Control | Equipment Number | Serial Number | Date of Manufacture | NSPS/NESHAP Applicable |
|--|--------------------------------|------------------|-------------------|--|---------------|---------------------|------------------------|
| Rich Electrolyte Tank-SXEW Circuit | 13,500 GAL | NA | NA | 103-TK-08 | NA | NA | NA |
| Recirculation Tank-SXEW Circuit | 13,800 GAL | NA | NA | 103-TK-09 | NA | NA | NA |
| Filter feed Tank-SXEW Circuit | 10,100 GAL | NA | NA | 103-TK-07 | NA | NA | NA |
| Sulfuric Acid Tanks-SXEW Circuit-2 Each | 6,000 GAL each | NA | NA | 104-TK-01 and 104-TK-02 | NA | NA | NA |
| Sodium Hydrosulfide (NaHS) Tanks PVU Reagent Bldg. (3each) | 6,000, 9,000, and 9,000 GAL | NA | NA | 41-TK-08, 41-TK-09, and 41-TK-11 | NA | NA | NA |
| Milk of Lime Tanks PVU Lime Plant, 2 each | 100,000 GAL each | NA | NA | 41-TK-01 and 41-TK-02 | NA | NA | NA |
| Antifreeze Tank (4 each) | 350, 500, 575, and 1,000 GAL | NA | NA | 12-TK-01, 13-TK-07, 13-TK-11, and 13-TK-18 | NA | NA | NA |
| Dithiophosphate (DTP) (Flomin C 2420 Collector) (3 Each) | 500, 9,000, and 9,000 GAL | NA | NA | 41-TK-03, 41-TK-05, and 33-TK-05 | NA | NA | NA |
| Xanthate (4 each) | 500, 500, 1,700, and 1,700 GAL | NA | NA | 41-TK-15, 41-TK-16, 33-TK-03, and 33-TK-04 | NA | NA | NA |
| Flottec F171 Frother (2 each) | 500 and 9,000 GAL | NA | NA | 41-TK-07 and 33-TK-02 | NA | NA | NA |
| Propane Tank (4 each) | 250, 250, 1,150, and 1,150 GAL | NA | NA | NA | NA | NA | NA |