



ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

AIR QUALITY CLASS II SYNTHETIC MINOR PERMIT

COMPANY: *Freeport-McMoRan Bagdad Inc.*
FACILITY: *Bagdad Mine*
PERMIT #: *29846*
DATE ISSUED: **DRAFT**
EXPIRY DATE:

SUMMARY

This Class II Synthetic Minor renewal permit is issued to Freeport-McMoRan Bagdad Inc., the Permittee, for the operation of their copper ore mining and processing facility located at the terminus of Highway 96 in Bagdad, Yavapai County, Arizona. This permit renews and supersedes Operating Permit #0363-89 and all associated permit revisions.

Major processes at the Bagdad Mine include: (a) Open pit mining and hauling of oxides and sulfide ore, low-grade ore and overburden; (b) Crushing and conveying of mined sulfide ore to the mill/concentrator area; (c) Milling and concentrating of sulfide ore to produce copper and Molybdenum (moly) concentrate; (d) Leaching of oxide ore and low-grade sulfide ore to produce pregnant leach solution (PLS); (e) Pressure leaching of concentrate to produce additional PLS; and (f) Solution extraction (SX) of the PLS and electrowinning (EW) to produce high purity copper cathodes.

The facility has the potential to emit more than 100 tons per year of particulate matter with an aerodynamic diameter of less than 10 micron (PM₁₀). The facility will operate air pollution controls and accept voluntary emissions limitations to stay below the major source threshold. Therefore, a Class II synthetic minor permit is required.

TABLE OF CONTENTS

ATTACHMENT "A": GENERAL PROVISIONS	3
I. PERMIT EXPIRATION AND RENEWAL.....	3
II. COMPLIANCE WITH PERMIT CONDITIONS	3
III. PERMIT REVISION, REOPENING, REVOCATION AND REISSUANCE, OR TERMINATION FOR CAUSE.....	3
IV. POSTING OF PERMIT	3
V. FEE PAYMENT	4
VI. ANNUAL EMISSION INVENTORY QUESTIONNAIRE	4
VII. COMPLIANCE CERTIFICATION	4
VIII. CERTIFICATION OF TRUTH, ACCURACY AND COMPLETENESS	5
IX. INSPECTION AND ENTRY	5
X. PERMIT REVISION PURSUANT TO FEDERAL HAZARDOUS AIR POLLUTANT STANDARD.....	5
XI. ACCIDENTAL RELEASE PROGRAM.....	5
XII. EXCESS EMISSIONS, PERMIT DEVIATIONS, AND EMERGENCY REPORTING	5
XIII. RECORD KEEPING REQUIREMENTS	10
XIV. REPORTING REQUIREMENTS	11
XV. DUTY TO PROVIDE INFORMATION	11
XVI. PERMIT AMENDMENT OR REVISION.....	11
XVII. FACILITY CHANGE WITHOUT A PERMIT REVISION	11
XVIII. TESTING REQUIREMENTS	14
XIX. PROPERTY RIGHTS.....	15
XX. SEVERABILITY CLAUSE	15
XXI. PERMIT SHIELD.....	15
ATTACHMENT "B": SPECIFIC CONDITIONS	16
I. FACILITY WIDE REQUIREMENTS	16
II. METALLIC MINERAL PROCESSING SUBJECT TO A.A.C. R18-2-721	20
III. METALLIC MINERAL PROCESSING SUBJECT TO NSPS SUBPART LL	23
IV. NON-NSPS FUEL BURNING EQUIPMENT.....	27
V. PACKAGE BOILER (G1).....	28
VI. PORTABLE AGGREGATE SYSTEM.....	29
VII. UNCLASSIFIED SOURCES	29
VIII. INTERNAL COMBUSTION ENGINES	34
IX. GASOLINE DISPENSING FACILITIES	36
X. FUGITIVE DUST REQUIREMENTS	37
XI. MOBILE SOURCE REQUIREMENTS.....	39
XII. OTHER PERIODIC ACTIVITY REQUIREMENTS	40
ATTACHMENT "C": EQUIPMENT LIST	44

ATTACHMENT "A": GENERAL PROVISIONS
Air Quality Control Permit No. 29846
for
Freeport-McMoRan Bagdad Inc.

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 air quality statutes and air quality rules. Any permit noncompliance constitutes a violation of the Arizona Revised Statutes and 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.c-d, 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 A.R.S. § 49-426(E) and A.A.C. R18-2-326.

VI. ANNUAL EMISSION INVENTORY QUESTIONNAIRE

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

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

VII. COMPLIANCE CERTIFICATION

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

- A.** The Permittee shall submit a compliance certification to the Director semiannually which describes the compliance status of the source with respect to each permit condition. The first certification shall be submitted no later than August 15th, and shall report the compliance status of the source during the period between January 1st and June 30th of the current year. The second certification shall be submitted no later than February 15th, and shall report the compliance status of the source during the period between July 1st and December 31st of the previous 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, 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 reasonably unforeseeable events beyond the control of the source, including acts of God, that require immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.
2. An emergency constitutes an affirmative defense to an action brought for noncompliance with such technology-based emission limitations if Condition XII.C.3 is met.
3. The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:
 - a. An emergency occurred and that the Permittee can identify the cause(s) of the emergency;
 - b. The permitted facility was being properly operated at the time;
 - c. During the period of the emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards or other requirements in the permit; and
 - d. The Permittee submitted notice of the emergency to the Director by certified mail, facsimile, or hand delivery within two working days of the time when emission limitations were exceeded due to the emergency. This notice shall contain a description of the emergency, any steps taken to mitigate emissions, and corrective action taken.
4. In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
5. This provision is in addition to any emergency or upset provision contained in any applicable requirement.

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 do 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:
 - (1) A description of any process change;
 - (2) 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

- (3) 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 any minor revisions pursuant to Condition XVI.C of this Attachment and any facility changes without a permit revision pursuant to Section XVII of this Attachment.

ATTACHMENT “B”: SPECIFIC CONDITIONS
Air Quality Control Permit No. 29846
for
Freeport-McMoRan Bagdad Inc.

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. [A.A.C. R18-2-306.A.3.c]
2. All air pollution control equipment, fuel burning equipment and internal combustion engines identified in Attachment “C” shall be operated and maintained in accordance with vendor-supplied operations and maintenance instructions. If vendor-supplied operations and maintenance instructions are not available or not applicable, within 90 days of permit issuance, the Permittee shall prepare an Operation and Maintenance Plan, which provides adequate information to properly operate and maintain the equipment. 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.3.c]
3. Within 90 days of permit issuance, the Permittee shall submit a Visual Observation Plan to be approved by the Director. The observation plan shall identify a central lookout station or multiple observation points, as appropriate, from where the fugitive emission sources shall be monitored. When multiple observation points are used, all the fugitive emission sources associated with each observation point shall be specifically identified within the observation plan. [A.A.C. R18-2-306.A.3.c]

B. Monitoring, 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. [A.A.C. R18-2-306.A.4]
2. The Permittee shall submit reports of all monitoring activities required in Attachment “B” along with the compliance certifications required by Section VII of Attachment “A.” [A.A.C. R18-2-306.A.5]

C. Periodic Opacity Monitoring

This Section defines periodic opacity monitoring methodologies that will be referenced in later sections. When a section requires one of the following methodologies, the appropriate opacity standard will be specified.

1. Baseline opacity monitoring methodology for applicable baghouses:
 - a. Baseline establishment
 - (1) The Permittee shall use the results of the most recent Method 9 test to establish a baseline opacity level. Within 30 days of

establishing the baseline opacity, the Permittee shall report the results to the Director.

[A.A.C. R18-2-306.A.3.c and -306.A.5]

- (2) The Permittee may re-establish the baseline opacity levels. Re-establishment of a baseline shall be performed utilizing the same procedures used in setting up the initial baseline level. Within 30 days of re-establishing the baseline opacity, the Permittee shall report the results to the Director. The report shall also contain a description of the need for re-establishing the baseline.

[A.A.C. R18-2-306.A.3.c and -306.A.5]

b. Opacity monitoring

- (1) A certified Method 9 observer shall conduct a monthly visual survey of emissions from the applicable unit, when in operation. The Permittee shall keep a record of the name of the observer, the location of the observation, the date on which the observation was made, and the results of the observation.

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

- (2) If the observer sees a plume from the unit that on an instantaneous basis appears to exceed the baseline opacity level, then the observer shall take a six-minute Method 9 observation of the plume. If visibility or other conditions prevent the observation, then the observer shall document these conditions.

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

- (3) If the six-minute opacity of the plume is less than the baseline level, the observer shall make a record of the results of the Method 9 observation.

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

- (4) If the six-minute opacity of the plume exceeds the baseline level but is less than the applicable opacity standard the Permittee shall adjust or repair the controls or process equipment as necessary to reduce opacity to the baseline level. The Permittee shall make a record of the results of the Method 9 observation and the corrective action taken.

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

- (5) If the six-minute opacity of the plume exceeds the applicable opacity standard the Permittee shall adjust or repair the controls or process equipment as necessary to reduce opacity to the baseline level and report the incident as an excess emission for opacity. The Permittee shall make a record of the results of the Method 9 observation, the corrective action taken, and the excess emissions report.

[A.A.C. R18-2-306.A.3.c, -306.A.4 and -306.A.5]

2. Non-baseline opacity monitoring methodology:

- a. A certified Method 9 observer shall conduct a monthly visual survey of emissions from the applicable unit, when in operation. The Permittee shall keep a record of the name of the observer, the location of the

observation, the date on which the observation was made, and the results of the observation.

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

- b. If the observer sees a plume from a unit that on an instantaneous basis appears to exceed the applicable opacity standard, then the observer shall take a six-minute Method 9 observation of the plume. If visibility or other conditions prevent the observation, then the observer shall document these conditions. [A.A.C. R18-2-306.A.3.c and -306.A.4]
- c. If the six-minute opacity of the plume is less than the applicable opacity standard, then the observer shall make a record of the results of the Method 9 observation. [A.A.C. R18-2-306.A.3.c and -306.A.4]
- d. If the six-minute opacity of the plume exceeds the applicable opacity standard, the Permittee shall adjust or repair the controls or process equipment as necessary to reduce opacity to the baseline level and report the incident as an excess emission for opacity. The Permittee shall make a record of the results of the Method 9 observation, the corrective action taken, and the excess emissions report. [A.A.C. R18-2-306.A.3.c, -306.A.4 and -306.A.5]

D. Alternate Operating Scenarios

The primary crushing operations, the overland conveyor operations, and the satellite crushing operations may be operated under Operating Scenario 1 or Operating Scenario 2. Attachment “C” identifies the equipment that can be operated under each operating scenario. The Permittee shall notify the Department 30 days prior to switching between operating scenarios. [A.A.C. R18-2-306.A.2]

E. Multiple-Unit Hourly Emissions Caps

- 1. Operating Scenario 1

While operating under Operating Scenario 1, the Permittee shall not cause to be discharged into the atmosphere emissions which contain PM₁₀ in excess of the caps identified in the following table:

Table 1 – Multiple-Unit Hourly Emissions Caps for Operating Scenario 1

Cap	Unit	Description	Hourly PM ₁₀ Limit
1	Scrubber C18	Control for Primary Crusher 1	4.7 lb/hr
	Scrubber C51	Control for Primary Crusher 2	
	Scrubber C14	Control for Copper Concentrate Dryer	
2	Scrubber C1	Control for Grinding Line Crusher #1	3.2 lb/hr
	Scrubber C2	Control for Grinding Line Crusher #2	
3	Scrubber C3	Control for Grinding Line Crusher #3	3.2 lb/hr
	Scrubber C4	Control for Grinding Line Crusher #4	

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

[Material Permit Conditions are indicated by underline and italics]

2. Operating Scenario 2

While operating under Operating Scenario 2, the Permittee shall not cause to be discharged into the atmosphere emissions which contain PM₁₀ in excess of the caps identified in the table below:

Table 2 – Multiple-Unit Hourly Emissions Caps for Operating Scenario 2

Cap	Unit	Description	Hourly PM ₁₀ Limit
1	Baghouse AE-003	Control for Conveyor C-7 to Apron Feeder 1 transfer point and Apron Feeder 1 to Conveyor C-8 or C-3 transfer point	2.33 lb/hr
	Baghouse AE-016	Control for Conveyor C-8 to C-9 transfer point	
	Baghouse AE-017	Control for Conveyor C-9 to Radial Stacker C-10 transfer point	
	Scrubber C1	Control for Vibrating Feeders and Secondary Crusher in Grinding Line 1	
2	Baghouse AE-001	Control for Conveyor C-2 to Apron Feeder 2 transfer point and Apron Feeder 2 to Conveyor C-8 or C-3 transfer point	2.42 lb/hr
	Baghouse AE-014	Control for Conveyor C-3 to Conveyor C-4 transfer point	
	Baghouse AE-015	Control for Conveyor C-4 to Radial Stacker C-5 transfer point	
	Scrubber C2	Control for Vibrating Feeders and Secondary Crusher in Grinding Line 2	
3	Baghouse AE-008	Control for Sizing Screens	4.83 lb/hr
	Baghouse AE-009	Control for Sizing Screens Oversize Conveyor to Sizing Screens Oversize Transfer Conveyor transfer point	
	Baghouse AE-010	Control for 400 ton Storage Bin and Secondary Crusher	
	Scrubber C14	Control for Copper Concentrate Dryer	
	Scrubber C3	Control for Vibrating Feeders and Secondary Crusher in Grinding Line 3	
4	Baghouse AE-002	Control for Primary Crusher #1	3.77 lb/hr
	Scrubber C51	Control for Primary Crusher #2	
	Baghouse AE-007	Control for the Product Transfer Conveyor to Reclaim Conveyor transfer point	
	Baghouse AE-011	Control for the Secondary Crusher Product Conveyor to Secondary Crusher Product Transfer Conveyor transfer point	
	Scrubber C4	Control for Grinding Line 4	
5	Scrubber CH-02/03	Control for Pressure Leach Vessel	4.95 lb/hr
	Baghouse AE-012	Control for HPGR	
	Baghouse AE-013	Control for the HPGR Discharge Conveyor to Wet Screen Bin Feed Conveyor transfer point and the Wet Screen Bin Feed Conveyor to Wet Screen Surge Bin transfer point	

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

[Material Permit Conditions are indicated by underline and italics]

3. Testing Requirements for Multiple-Unit Emissions Limits

To show initial compliance with NSPS emission limits if applicable, and to show compliance with the multiple unit emissions limits the Permittee shall:

- a. Within 60 days of achieving the maximum production rate but not later than 180 days after initial startup, the Permittee shall conduct any initial testing required for PM under 40 CFR 60 Subpart LL and 40 CFR 60.8. [40 CFR 60.8]
- b. Conduct a performance test for PM₁₀ within 12 months of permit issuance on each unit in Table 1 if operating under Operating Scenario #1. Subsequent tests shall be performed on the schedule identified in Table 3, below. [A.A.C. R18-2-312]
- c. Conduct a performance test for PM₁₀ within 12 months of the start of Operating Scenario #2 on each unit in Table 2. Subsequent tests shall be performed on the schedule identified in Table 3, below. [A.A.C. R18-2-312]
- d. The Permittee shall conduct performance tests for PM₁₀ using EPA Reference Method 201A and Method 202. Alternatively, the Permittee may use the front half and back half of an EPA Reference Method 5 test to represent PM₁₀. [A.A.C. R18-2-312]
- e. The Permittee shall conduct multi unit performance tests on the following schedule:

Table 3: Testing Schedule for Compliance with Multi Unit Emissions Caps

If the results of the most recent test on an emission cap are:	Subsequent testing for that emission cap¹:
75% of emission cap or greater	Within 12 months of the previously completed test
Less than 75% of emission cap	Within 24 months of the previously completed test

1-Emission units not operating during a scheduled test shall be tested within 90 operating days after resuming operation.

II. METALLIC MINERAL PROCESSING SUBJECT TO A.A.C. R18-2-721

A. Applicability

This Section applies to the equipment identified in Attachment “C” as subject to A.A.C. R18-2-721.

B. Operational Limitations

- 1. *The Permittee shall only operate the Emergency Grizzly System, which consists of two Bar Grizzlies (EG1 and EG2), two Apron Feeders (EGAF1 and EGAF2), and two Belt Conveyors (EGBC1 and EGBC2), when the primary crushers malfunction and are inoperative.*

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

[Material Permit Conditions are indicated by underline and italics]

2. Recordkeeping Requirements

The Permittee shall maintain records of the daily process rate and hours of operation of all material handling facilities. [A.A.C. R18-2-721.F]

3. Permit Shield

Compliance with the conditions of this Part shall be deemed compliance with A.A.C. R18-2-721.F. [A.A.C. R18-2-325]

C. Particulate Matter

1. Emission Limitations

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:

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

Where:

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

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

[A.A.C. R18-2-721.B.1]

(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:

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

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

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

2. Air Pollution Control Equipment

a. When operating under Operating Scenario 2, the Permittee shall install maintain and operate Baghouses AE-001, AE-003, AE-014, AE-015, AE-016 and AE-017 to control particulate emissions from the Overland Conveyor transfer points.

[A.A.C. R18-2-306.01.A, -331.A.3.d and e]
[Material Permit Conditions are indicated by underline and italics]

- b. *The Permittee shall, to the extent practicable, install, operate and maintain all other pollution control devices including water sprays, duct work, and hoods used to capture and control particulate matter emissions.*

[A.A.C. R18-2-306.01.A., -331.A.3.d and e]
[Material Permit Conditions are indicated by underline and italics]

- c. *The Permittee shall maintain and operate the pilot plant hoppers, bucket elevators, and volumetric screw feeders such that the transfer of material to and from the equipment is enclosed.*

[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 maintain and operate the Sample Preparation Baghouse to control particulate emissions from the sample preparation area.*

[A.A.C. R18-2-306.01.A and -331.A.3.e]
[Material Permit Conditions are indicated by underline and italics]

3. Monitoring and Recordkeeping Requirements

When operating under Operating Scenario 2, the Permittee shall conduct and record the results of a quarterly blacklight inspection of baghouses AE-001, AE-003, AE-014, AE-015, AE-016 and AE-017.

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

4. Permit Shield

Compliance with the conditions of this Part shall be deemed compliance with A.A.C. R18-2-721.B.1, B.2, and D.

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

D. Opacity

1. Emission Limitation

- a. The opacity of any plume or effluent from any process source 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.D.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. When operating under Operating Scenario 2, the Permittee shall employ the baseline opacity monitoring method specified in Condition I.C.1 for Baghouses AE-001, AE-003, AE-014, AE-015, AE-016, and AE-017.

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

- b. The Permittee shall employ the opacity monitoring method specified in Condition I.C.2 for all other sources subject to this Section.

3. Permit Shield

Compliance with the conditions of this Part shall be deemed compliance with
A.A.C. R18-2-702.B.3 and 702.C. [A.A.C. R18-2-325]

III. METALLIC MINERAL PROCESSING SUBJECT TO NSPS SUBPART LL

A. Applicability

This Section applies to the metallic mineral processing equipment which is identified in Attachment "C" as subject to NSPS 40 CFR 60 Subpart LL.

B. Particulate Matter

1. Emission Limitations

The Permittee shall not cause to be discharged into the atmosphere from an affected facility any stack emissions that contain particulate matter in excess of 0.05 grams per dry standard cubic meter.

[40 CFR 60.382(a)(1)]

2. Air Pollution Control Equipment

a. When operating under Operating Scenario 1, the Permittee shall maintain and operate Scrubber C41 and C18 to control particulate emissions from the Satellite Crushing Plant and Primary Crusher #1.

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

[Material Permit Conditions are indicated by underline and italics]

b. When operating under Operating Scenario 2, the Permittee shall install, maintain and operate Baghouses AE-002, AE-007, AE-008, AE-009, AE-010, AE-011, AE-012 and AE-013 to control particulate emissions from the Satellite Crushing Plant and Primary Crusher #1.

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

[Material Permit Conditions are indicated by underline and italics]

c. The Permittee shall, maintain and operate wet scrubbers C1, C2, C3, C4, C5, C12, C14 and C51, to control particulate emissions from Grinding Lines 1-5, Primary Crusher #2, the Moly Dryer, and the Copper Concentrate Dryer.

[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 install, maintain, and operate the Wet Venturi Scrubber (M-VS) and the Wet Packed Scrubber (M-PS) to control particulate matter emissions from the Steam Deoiler.

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

[Material Permit Conditions are indicated by underline and italics]

e. The Permittee shall, to the extent practicable, install, operate and maintain all other pollution control devices including water sprays, duct work, and hoods used to capture and control particulate matter emissions.

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

[Material Permit Conditions are indicated by underline and italics]

3. Monitoring, Recordkeeping, and Reporting Requirements

- a. *The Permittee shall install, calibrate, maintain, and operate a monitoring device for the continuous measurement of the change in pressure of the gas stream through each operating scrubber. The monitoring device must be certified by the manufacturer to be accurate within ± 250 pascals (± 1 inch water) gauge pressure and must be calibrated on an annual basis in accordance with manufacturer's instructions.*

[40 CFR 60.384(a) and A.A.C. R18-2-331.A.3.c]

[Material Permit Conditions are indicated by underline and italics]

- b. *The Permittee shall install, calibrate, maintain, and operate a monitoring device for the continuous measurement of the scrubbing liquid flow rate to each operating scrubber. The monitoring device must be certified by the manufacturer to be accurate within ± 5 percent of design scrubbing liquid flow rate and must be calibrated on at least an annual basis in accordance with manufacturer's instructions.*

[40 CFR 60.384(b) and A.A.C. R18-2-331.A.3.c]

[Material Permit Conditions are indicated by underline and italics]

- c. The Permittee shall record on a weekly basis the measurements of both the change in pressure of the gas stream across each operating scrubber and the scrubbing liquid flow rate.

[40 CFR 60.385(b)]

- d. The Permittee shall submit semi-annual reports of occurrences when the measurements of the scrubber pressure loss (or gain) or liquid flow rate differ by more than ± 30 percent from the average obtained during the most recent performance test. These reports shall be postmarked within 30 days following the end of the second and fourth calendar quarters.

[40 CFR 60.385(c) and (d)]

- e. The Permittee shall use the monitoring devices required by Conditions III.B.3.a and b to determine the pressure loss of the gas stream through the scrubber and the scrubber liquid flow rate at any time during each particulate matter performance test run and the average of the three determinations shall be computed.

[40 CFR 60.386(c)]

- f. When operating under Operating Scenario 2, the Permittee shall conduct and record the results of a quarterly blacklight inspection of baghouses AE-002, AE-007, AE-008, AE-009, AE-010, AE-011, AE-012 and AE-013.

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

4. Performance Testing

- a. The Permittee shall conduct a once per permit term Method 5 or 17 performance test on the Moly Dryer Wet Scrubber (C12), the Steam Deoiler Wet Venturi Scrubber (M-VS), and the Steam Deoiler Wet Packed Scrubber (M-PS) to demonstrate compliance with the particulate matter standard in Condition III.B.1.

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

- b. Within 12 months of permit issuance, the Permittee shall conduct a Method 5 or 17 performance test on the Grinding Line #5 Scrubber (C5)

and the Satellite Crushing Plant Scrubber (C41) to demonstrate compliance with the particulate matter standard in Condition III.B.1.

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

- c. The Permittee shall conduct subsequent performance tests on Grinding Line #5 Scrubber (C5) and Satellite Crushing Plant Scrubber (C41) in accordance with Table 4.

Table 4: Testing Schedule for C5 and C41¹

If the results of the most recent test are:	Subsequent Testing²:
75% of standard or greater	Within 12 months of the previously completed test
Less than 75% of standard	Within 24 months of the previously completed test

1-Under Operating Scenario 2, Scrubber C41 is removed and no longer requires testing

2-Emission units not operating during a scheduled test shall be tested within 90 operating days after resuming operation.

5. Permit Shield

Compliance with the conditions of this Part shall be deemed compliance with 40 CFR 60.382(a)(1), 60.384(a), 60.384(b), 60.385(b), 60.385(c), 60.385(d) and 60.386(c). [A.A.C. R18-2-325]

C. Opacity

1. Emission Limitations

a. *The Permittee shall not cause to be discharged into the atmosphere any stack emissions that exhibit greater than 7 percent opacity, unless the stack emissions are discharged from a wet scrubbing emission control device.*

[40 CFR 60.382(a)(2) and A.A.C. R18-2-331.A.3.f]

[Material Permit Conditions are indicated by underline and italics]

b. *The Permittee shall not cause to be discharged into the atmosphere from an affected facility any process fugitive emissions that exhibit greater than 10 percent opacity.*

[40 CFR 60.382(b) and A.A.C. R18-2-331.A.3.f]

[Material Permit Conditions are indicated by underline and italics]

2. Monitoring, Recordkeeping, and Reporting Requirements

a. When operating under Operating Scenario 2, the Permittee shall employ the baseline opacity monitoring method specified in Condition I.C.1 for Baghouses AE-002, AE-007, AE-008, AE-009, AE-010, AE-011, AE-012 and AE-013. [A.A.C. R18-2-306.A.3.c]

b. The Permittee shall employ the opacity monitoring method specified in Condition I.C.2 for all other sources subject to this Section.

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

3. Performance Tests

a. For the purpose of demonstrating initial compliance with Conditions III.C.1.a. and b., opacity observations shall be conducted concurrently with the performance tests required in Condition III.B.4.a above, except as allowed in 40 CFR 60.11(e)(1). The minimum total time of observations shall be 3 hours (30 6-minute averages).

[40 CFR 60.11(b) and 386(b)(2)]

b. EPA Reference Method 9 and the procedures in 40 CFR 60.11 shall be used to determine opacity from stack emissions and process fugitive emissions. The observer shall read opacity only when emissions are clearly identified as emanating solely from the affected facility being observed.

[40 CFR 60.386(b)(2)]

4. Permit Shield

Compliance with the conditions of this Part shall be deemed compliance with 40 CFR 60.11(b), 382(a)(2), 382(b), and 386(b)(2).

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

D. Volatile Organic Compounds (VOC)

1. Emission Limitations

The Permittee shall not cause to be discharged into the atmosphere from the steam deoiler any emissions that contain volatile organic compounds in excess of 1.36 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]

2. Air Pollution Control Requirement

a. The Permittee shall install, maintain, and operate the Wet Venturi Scrubber (M-VS) to control VOC emissions from the Steam Deoiler.

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

[Material permit conditions are indicated by underline and italics]

b. The Permittee shall install, maintain, and operate a flare (M-F) to control VOC emissions from the Steam Deoiler.

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

[Material permit conditions are indicated by underline and italics]

c. The flare chamber temperature shall be equal to or greater than 1300°F.

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

3. Monitoring and Recordkeeping Requirements

a. The Permittee shall install, calibrate, maintain and operate a thermocouple or any other equivalent device for the continuous measurement of temperature in the flare chamber. The monitoring device shall be certified by the manufacturer to be accurate within ±100 °F and must be calibrated on an annual basis in accordance with manufacturer's instructions.

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

[Material Permit Conditions are indicated by underline and italics]

b. Except for system breakdowns, repairs and calibration checks, the

thermocouple and recording device shall be in continuous operation whenever the steam deoiler is operating. [A.A.C. R18-2-306.A.3.c]

4. Testing Requirements

The Permittee shall perform a once per permit term Method 25A/25B performance test for VOC emissions to demonstrate compliance with the emission limit specified in Condition III.D.1. [A.A.C. R18-2-312]

IV. NON-NSPS FUEL BURNING EQUIPMENT

A. Applicability

This Section applies to the First Thermal Systems Heater (C13), Natural Gas Fired SX/EW Water Heater (C23B), Electrolyte Boiler (G5), Natural Gas Steam Generator (M-SG), Natural Gas Deoiler Heater (M-DH), Teledyne Lanns Boiler (TLB), Truck Wash Boilers (TWB1 and TWB2), Hot Water Pressure Washers, Mine Area / Shop Heaters and SX/EW Heaters.

B. Operational Limitations

The Permittee shall burn only natural gas or propane in the fuel burning equipment.

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

[Material Permit Conditions are indicated by underline and italics]

C. Particulate Matter

1. Emission Limitation

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

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

Where:

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

Q = the heat input in million Btu per hour.

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

2. Permit Shield

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

D. Opacity

1. Emission Limitations

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

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

2. Monitoring, Recordkeeping and Reporting Requirements

- a. The Permittee shall report all six-minute periods in which the opacity of any plume or effluent exceeds 15 percent. [A.A.C.R18-2-724.J]
- b. The Permittee shall employ the opacity monitoring method specified in Condition I.C.2 for all sources subject to this Section, except for the Mine Area / Shop Heaters and SX/EW Heaters. [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.R18-2-724.J. [A.A.C. R18-2-325]

V. PACKAGE BOILER (G1)

A. Applicability

This Section applies to the Package Boiler (G1).

B. Operational Limitations

1. Fuel Limitation

The Permittee shall burn only natural gas or propane in the package boiler.

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

2. Monitoring, Recordkeeping, and Reporting Requirements

- a. The Permittee shall record and maintain records of the amounts of each fuel combusted during each day. [40 CFR 60.48c(g)(1)]
- b. As an alternative to meeting the requirements of Condition V.B.2.b, the Permittee may elect to record and maintain records of the amount of each fuel combusted during each calendar month. [40 CFR 60.48c(g)(2)]
- c. All records required under 40 CFR 60 Subpart Dc shall be maintained by the Permittee for a period of two years following the date of such record. [40 CFR 60.48c(i)]
- d. The reporting period is each six-month period. All reports shall be submitted to the Director and shall be postmarked by the 30th day following the end of the reporting period. [40 CFR 60.48c(j)]

3. Permit Shield

Compliance with the conditions of this Part shall be deemed compliance with 40 CFR 60.48c(g)(1), 60.48c(g)(2), 60.48c(i) and 60.48c(j). [A.A.C. R18-2-325]

C. Air Pollution Control Equipment

At all times when the equipment is in operation, including periods of startup, shutdown,

and malfunction, the Permittee shall to the extent practicable, maintain and operate the Low NOx Burner for Package Boiler G1 in a manner consistent with good air pollution control practice for minimizing nitrogen oxide emissions.

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

[Material Permit Conditions are indicated by underline and italics]

VI. PORTABLE AGGREGATE SYSTEM

A. Applicability

This Section is applicable to the portable aggregate system.

B. Particulate Matter and Opacity

1. Emission Limitations

- a. The Permittee shall not cause to be discharged into the atmosphere from the portable aggregate system any process fugitive emissions greater than 10 percent opacity, except as provided in Condition VI.B.1.b, below.

[40 CFR 60.672(b) and A.A.C. R18-2-331.A.3.f]

[Material permit conditions are indicated by underline and italics]

- b. The Permittee shall not cause to be discharged into the atmosphere from the portable aggregate system any crusher fugitive emissions greater than 15 percent opacity.

[40 CFR 60.672(c) and A.A.C. R18-2-331.A.3.f]

Material permit conditions are indicated by underline and italics]

2. Air Pollution Control Equipment

The Permittee shall operate and maintain water sprays to control particulate matter emissions from the Portable Aggregate System.

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

[Material Permit Conditions are indicated by underline and italics]

3. Monitoring, Recordkeeping and Reporting Requirements

The Permittee shall employ the opacity monitoring method specified in Condition I.C.2 for all sources subject to this Section.

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

4. Permit Shield

Compliance with the conditions of this Part shall be deemed compliance with 40 CFR 60.672(b) and (c).

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

VII. UNCLASSIFIED SOURCES

A. Applicability

This Section applies to the Lime Handling System and associated Baghouses (C15 and C62), Pressure Leach Vessel (G2) and associated Scrubbers (CH-02 and CH-03), Cooling Tower (G3), Lime Storage Bin (LSB-G4) and associated Baghouse (G4), the Additive Feeding System and associated Baghouse (G6), and the Solution extraction/electrowinning process (SX/EW).

B. Operational Limitations

1. Materials including solvents or other volatile compounds, acids and alkalis shall be processed, stored, used and transported in such a manner and by such 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 other equipment shall be mandatory. [A.A.C. R18-2-730.F]
2. Where a stack, vent or other outlet is at such a level that fumes, gas mist, odor, smoke, vapor or any combination thereof constituting air pollution is discharged to adjoining property, the Director may require the installation of abatement equipment or the alteration of such stack, vent or other outlet by the Permittee 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]
3. The Permittee shall not cause or permit the emission of gaseous or odorous materials from equipment, operations, and premises under its control in such quantities or concentrations as to cause air pollution. [A.A.C. R18-2-730.D]
4. Permit Shield

Compliance with the conditions of this Part shall be deemed compliance with A.A.C. R18-2-730.D, 730.F and 730.G. [A.A.C. R18-2-325]

C. Particulate Matter

1. Emission Limitations
 - a. The Permittee shall not cause, allow or permit the discharge of particulate matter into the atmosphere 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:
$$E = 4.1P^{0.67}$$
Where:
 $E =$ the maximum allowable particulate emissions rate in pounds-mass per hour.
 $P =$ the process weight rate in tons-mass per hour. [A.A.C. R18-2-730.A.1.a]
 - (2) For process sources having a process weight rate greater than 60,000 pounds per hour (30 tons per hour), the maximum allowable emissions shall be determined by the following equation:

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

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

- (3) When applying the process weight rate equation, the Permittee shall utilize the total process weight from all similar units employing a similar type process to determine the maximum allowable emissions of particulate matter.

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

- b. When operating under Operating Scenario 1, the Permittee shall not cause to be discharged into the atmosphere from the Pressure Leach Vessel PM₁₀ in excess of 4.0 lb/hr. [A.A.C. R18-2-306.01.A and -331.A.3.a]
[Material Permit Conditions are indicated by underline and italics]

2. Air Pollution Control Equipment

- a. The Permittee shall install, maintain, and operate fabric filter baghouses G4, C15, and C62 to control the particulate matter emissions from the lime handling system and storage bin. [A.A.C. R18-2-306.01.A, -331.A.3.d and e]
[Material Permit Conditions are indicated by underline and italics]
- b. The Permittee shall install, maintain and operate the lime discharge from the hopper, and the subsequent material transfers to belt conveyors, and lime weigh feeders such that the transfer of material to and from the equipment occurs below ground or is enclosed. [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 maintain, and operate Venturi Scrubber CH-02, and Venturi Scrubber CH-03 if necessary, to control particulate emissions discharged into the atmosphere from the Pressure Leach Vessel G2. [A.A.C. R18-2-306.01.A and -331.A.3.e]
[Material Permit Conditions are indicated by underline and italics]
- d. Loading of the lime storage bin (LSB-G4) shall be conducted in such a manner that the displaced air does not by-pass the baghouse/dust collector and is not directly vented to the atmosphere. [A.A.C. R18-2-306.01.A and -331.A.3.e]
[Material Permit Conditions are indicated by underline and italics]
- e. The Permittee shall maintain and operate the baghouse/dust collector on the additive bulk bag unloader (G6) to control particulate matter emissions. [A.A.C. R18-2-306.01.A and -331.A.3.e]
[Material Permit Conditions are indicated by underline and italics]
- f. Loading of the additive bulk bag unloader shall be conducted in such a manner that the displaced air does not by-pass the baghouse/dust collector and is not directly vented to the atmosphere. [A.A.C. R18-2-306.01.A and -331.A.3.e]
[Material Permit Conditions are indicated by underline and italics]
- g. The Permittee shall, to the extent practicable, install, operate and maintain all other pollution control devices including water sprays, duct work, and hoods used to capture and control particulate matter emissions.

3. Monitoring, Record keeping and Reporting Requirements

- a. *The Permittee shall calibrate, maintain, and operate a monitoring device for the continuous measurement of the change in pressure of the gas stream through operating scrubbers CH-02 and CH-03. The monitoring device must be certified by the manufacturer to be accurate within ± 250 pascals (± 1 inch water) gauge pressure and must be calibrated on an annual basis in accordance with manufacturer's instructions.*

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

[Material Permit Conditions are indicated by underline and italics]

- b. *The Permittee shall calibrate, maintain, and operate a monitoring device for the continuous measurement of the scrubbing liquid flow rate to operating scrubbers CH-02 and CH-03. The monitoring device must be certified by the manufacturer to be accurate within ± 5 percent of design scrubbing liquid flow rate and must be calibrated on at least an annual basis in accordance with manufacturer's instructions.*

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

[Material Permit Conditions are indicated by underline and italics]

- c. The Permittee shall record on a weekly basis the change in pressure of the gas stream across operating scrubber CH-02 and CH-03 and the scrubbing liquid flow rate.

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

- d. The Permittee shall submit semi-annual reports of occurrences when the measurements of the scrubber pressure loss (or gain) or liquid flow rate differ by more than ± 30 percent from the average obtained during the most recent performance test of the CH-02 and CH-03 scrubbers. These reports shall be postmarked within 30 days following the end of the second and fourth calendar quarters.

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

- e. The Permittee shall conduct and record the results of an annual blacklight inspection of baghouses G6, C15, C62, and G4.

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

4. Testing Requirements

- a. Within 12 months of permit issuance and if operating under Operating Scenario 1, the Permittee shall conduct an EPA Reference Method 201A and Method 202 performance test for PM_{10} on the Pressure Leach Vessel to demonstrate compliance with Condition VII.C.1.b. Alternatively, the Permittee may use the front half and back half of an EPA Reference Method 5 test to represent PM_{10} . The Permittee shall conduct subsequent performance tests in accordance with Table 5.

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

Table 5: Testing Schedule for Pressure Leach Vessel¹

If the results of the most recent test are:	Subsequent Testing²:
75% of standard or greater	Within 12 months of the previously completed test
Less than 75% of standard	Within 24 months of the previously completed test

1-Under Operating Scenario 2, the Pressure Leach Vessel becomes part of emission cap #5 and will follow that testing schedule.
 2-Emission units not operating during a scheduled test shall be tested within 90 operating days after resuming operation.

5. Permit Shield

Compliance with the conditions of this Section shall be deemed compliance with A.A.C. R18-2-730.A.1.a, 730.A.1.b and 730.B.

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

D. Opacity

1. Emission Limitations

The Permittee shall not cause or allow to be discharged into the atmosphere, from any plume or effluent, visible emissions in excess of 20 percent, as determined by EPA Reference Method 9. Where the presence of uncombined water is the only reason for the exceedances of any visible emissions requirement, such exceedances shall not constitute a violation.

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

2. Monitoring, Record keeping and Reporting Requirements

The Permittee shall employ the opacity method specified in Condition I.C.2 for Baghouses C15, C62, G4, and G6.

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

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

E. Volatile Organic Compounds

Air Pollution Control Equipment

The Permittee shall maintain and use covers on the SX mixer settler tanks to control emissions from the Solution Extraction Plant.

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

[Material permit conditions are indicated by underline and italics]

F. Sulfuric Acid Mist

1. Air Pollution Control Equipment

The Permittee shall use one or more of the following methods to control emissions from the Electrowinning Tankhouse Cells:

- a. Foam
- b. Blankets
- c. Surfactants
- d. Brushes
- e. Thermal retention balls
- f. Water foggers
- g. Other effective means of controlling sulfuric acid emissions approved by the Director.

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

[Material permit conditions are indicated by underline and italics]

2. Recordkeeping Requirements

The Permittee shall keep a record of which method is used to control emissions from the Electrowinning Tankhouse Cells.

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

VIII. INTERNAL COMBUSTION ENGINES

A. Applicability

This Section applies to all the equipment which is identified in Attachment “C” as subject to A.A.C. R18-2-719.

B. Operational Limitations

1. Hourly Limitations

- a. The Permittee shall operate the Mullholland Wash generator and the Mammoth Wash generator for no more than 1,080 hours per engine in any rolling 12-month period.

[Installation Permit #1237, Attachment “B” Condition V and A.A.C. R18-2-331.A.3.a]

[Material Permit Condition is indicated by underline and italics]

- b. Except as provided in Condition VIII.B.1.a, above, the Permittee shall operate each applicable engine for no more than 500 hours in any rolling 12-month period.

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

[Material Permit Condition is indicated by underline and italics]

2. Fuel Limitations

The Permittee shall only fire low sulfur diesel (less than 0.9 percent by weight), natural gas or propane in the engines.

[A.A.C. R18-2-306.A.2 and -719.H]

3. Monitoring, Recordkeeping and Reporting Requirements

- a. At the end of each month, the Permittee shall calculate and record a monthly subtotal and a 12-month rolling total of hours of operation for each engine. [A.A.C. R18-2-306A.3.c and A.4]
- b. The Permittee shall report any daily period during which the sulfur content of the fuel being fired in the engines exceeds 0.8%. [A.A.C. R18-2-719.J]
- c. The Permittee shall maintain appropriate documentation in order to record daily the sulfur content and lower heating value of the fuel being fired in each engine. [A.A.C. R18-2-719.I]

4. Permit Shield

Compliance with the conditions of this Part shall be deemed compliance with A.A.C. R18-2-719.H, I, J and Installation Permit #1237, Attachment "B" Condition V. [A.A.C. R18-2-325]

C. Particulate Matter

1. Emission Limitations

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

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

Where:

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

Q = the heat input in million Btu per hour.

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

- b. For the purposes of Condition VIII.C.1.a above, the heat input shall be the aggregate heat content of all fuels whose products of combustion pass through a stack or other outlet. Compliance tests shall be conducted during operation at the normal rated capacity of each unit. The total heat input of all the stationary rotating machinery 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]

2. Permit Shield

Compliance with the conditions of this Part shall be deemed compliance with A.A.C.R18-2-719.B and 719.C.1. [A.A.C. R18-2-325]

D. Opacity

1. Emission Limitations

The Permittee shall not cause, allow or permit to be emitted into the atmosphere

from the engines smoke for any period of time greater than ten consecutive seconds which exceeds 40 percent opacity. Visible emissions when starting cold equipment shall be exempt from this requirement for the first ten minutes.

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

2. Monitoring, Record keeping and Reporting Requirements

The Permittee shall conduct opacity monitoring in accordance with Condition I.C.2 on all sources subject to this Section.

[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. R18-2-719.E.

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

E. Sulfur Dioxide

1. Emission Limitations

When firing diesel, the Permittee shall not cause to be discharged into the atmosphere from the engines SO₂ in excess of 1.0 pound per million BTU.

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

2. Permit Shield

Compliance with the conditions of this Part shall be deemed compliance with A.A.C. R18-2-719.F.

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

IX. GASOLINE DISPENSING FACILITIES

A. Applicability

This Section applies to Gasoline Dispensing Facility GDF1 (Tank 150) and GDF2 (FT-3) and associated gasoline loading operations.

B. Standards and Limitations

1. The 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]

2. 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]

3. The following standards shall apply to GDF2 upon startup and shall apply to GDF1 beginning January 10, 2011.

[40 CFR 63.11113(a)(1), (a)(2) and (b)]

a. 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:

- (1) Minimize gasoline spills; [40 CFR 63.11116(a)(1)]
- (2) Clean up spills as expeditiously as practicable; [40 CFR 63.11116(a)(2)]
- (3) Cover all open gasoline containers and all gasoline storage tank fill-pipes with a gasketed seal when not in use; [40 CFR 63.11116(a)(3)]
- (4) 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 63.11116(a)(4)]

C. Monitoring and Recordkeeping Requirements

- 1. The Permittee shall maintain a record of the typical Reid vapor pressure of gasoline, dates of storage in the tank, and dates when the storage tank is empty. [A.A.C. R18-2-710.E.1]
- 2. The Permittee must have gasoline throughput records available within 24 hours of a request by the Administrator or Director. [40 CFR 63.11116(b)]

D. Permit Shield

Compliance with the conditions of this Part shall be deemed compliance with A.A.C. R18-2-710.B, 710.D, 710.E.1, 40 CFR 63.11113(a)(1),(a)(2) and (b), and 63.11116(a)(1)-(4) and (b). [A.A.C. R18-2-325]

X. FUGITIVE DUST REQUIREMENTS

A. Applicability

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

B. Particulate Matter and Opacity

- 1. Open Areas, Roadways and Streets, Storage Piles, and Material Handling
 - a. Emission Limitations/Standards
 - (1) 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]
 - (2) The Permittee shall not cause, allow or permit visible emissions from any fugitive dust point source, in excess of 20 percent opacity. [A.A.C-R18-2-702.B]
 - (3) The Permittee shall employ the following reasonable precautions to prevent excessive amounts of particulate matter from becoming airborne:
 - (a) Keep dust and other types of air contaminants to a

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

b. Air Pollution Control Requirements

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

[A.A.C. R-18-2-306.A.2 and -331.A.3.d]

c. **Monitoring and Recordkeeping Requirements**

- (1) The Permittee shall maintain records of the dates on which any of the activities listed in Conditions X.B.1.a.(3)(a) through X.B.1.a.(3)(h) above were performed and the control measures that were utilized. [A.A.C. R18-2-306.A.3.c]
- (2) The Permittee shall conduct opacity monitoring in accordance with Condition I.C.2 for sources subject to this Section. [A.A.C. R18-2-306.A.3.c]

d. **Permit Shield**

Compliance with the conditions of this Part 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. R18-2-614 and A.A.C. R18-2-702.B. [A.A.C. R18-2-325]

XI. MOBILE SOURCE REQUIREMENTS

A. Applicability

The requirements of this Section are applicable to mobile sources which either move while emitting air contaminants or are frequently moved during the course of their utilization but are not classified as motor vehicles, agricultural vehicles, or agricultural equipment used in normal farm operations. Mobile sources shall not include portable sources as defined in A.A.C. R18-2-101.90. [A.A.C.R18-2-801.A]

B. Particulate Matter and Opacity

1. **Emission Limitations/Standards**

a. **Off-Road Machinery**

The Permittee shall not cause, allow, or permit to be emitted into the atmosphere from any off-road machinery, smoke for any period greater than ten consecutive seconds, the opacity of which exceeds 40%. Visible emissions when starting cold equipment shall be exempt from this requirement for the first ten minutes. Off-road machinery shall include trucks, graders, scrapers, rollers, and other construction and mining machinery not normally driven on a completed public roadway. [A.A.C.R18-2-802.A and -802.B]

b. **Roadway and Site Cleaning Machinery**

- (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]

XII. OTHER PERIODIC ACTIVITY REQUIREMENTS

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 shall log in indelible ink or in an electronic format, a record of the following:

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

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

3. Permit Shield

Compliance with this Part shall be deemed compliance with A.A.C. R18-2-726, 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 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 XII.B.1.a.(2), a photochemically reactive solvent shall be any solvent with an aggregate of more than 20 percent of its total volume composed of the chemical compounds classified in Conditions XII.B.1.a.(3)(a) through XII.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 XII.B.1.a.(3)(a) through XII.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 log in indelible ink, or in an electronic format, a record of the following:

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

- (2) Architectural coating and spot painting projects shall be exempt from the recordkeeping requirements of Condition XIII.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. 29846
for
Freeport McMoRan Bagdad Inc.

EQUIPMENT TYPE	MAX. CAPACITY	MAKE/ MODEL	SERIAL NUMBER/ EQUIP ID	DOM.	NSPS/SIP
Open Pit Mine – Operating Scenario 1					
Dump Pocket	5,865 tph	-	PC1HAF	TBD	AAC R-18-2-721
Primary Crusher 1	5,865 tph	Allis-Chalmers	PC1	1975	NSPS Subpart LL
Scrubber for PC1		Rotoclone Type N Model B Design 4 Size 12	C18	2001	NSPS Subpart LL
Apron Feeder	5,865 tph	-	PC1AF	1975	NSPS Subpart LL
Surge Bin	640 tons	-	PC1SB	1975	NSPS Subpart LL
Dump Pocket	5,865 tph	-	PC2HAF	2005	AAC R-18-2-721
Primary Crusher 2	5,865 tph	-	PC2	2005	NSPS Subpart LL
Scrubber for PC2		Ducon / UW4	C51	2005	NSPS Subpart LL
Apron Feeder	5,865 tph	-	PC2HAF	2005	NSPS Subpart LL
Surge Bin	640 tons	-	PC2SB	2005	NSPS Subpart LL
Dribble Conveyor	N/A	-	PC2DC	2005	NSPS Subpart LL
Open Pit Mine – Operating Scenario 2					
Dump Pocket	5,865 tph	-	DP1	TBD	AAC R-18-2-721
Primary Crusher 1	5,865 tph	Allis Chalmers	PC-PC1	TBD	NSPS Subpart LL
Dust Collector for PC1	12,000 acfm	NA	AE-002	TBD	NSPS Subpart LL
Surge Bin	700 tons	NA	PC1SB	TBD	NSPS Subpart LL
Disch. Apron Feeder	5,865 tph	NA	PC1DAF	TBD	NSPS Subpart LL
Dump Pocket	5,865 tph	-	DP2	2005	AAC R-18-2-721
Primary Crusher 2	5,865 tph	MA	PC-PC2	2005	NSPS Subpart LL
Scrubber for PC2		Ducon / UW4	C51	2005	NSPS Subpart LL
Surge Bin	640 tons	NA	PC2SB	2005	NSPS Subpart LL
Apron Feeder	5,865 tph	NA	PC2AF	2005	NSPS Subpart LL
Dribble Conveyor	N/A	NA	PC2DC	2005	NSPS Subpart LL
Overland Conveyor – Operating Scenario 1					
Overland Conveyor 3A	5,865 tph	-	OC3A	2005	AAC R-18-2-721
Overland Conveyor 104	5,865 tph	-	OC104	TBD	AAC R-18-2-721
Radial Stacker 105	5,865 tph	-	RST105	TBD	AAC R-18-2-721
Overland Conveyor 1	5,865 tph	-	OC1	1975	AAC R-18-2-721
Overland Conveyor 2	5,865 tph	-	OC2	1975	AAC R-18-2-721
Overland Conveyor 3	5,865 tph	-	OC3	1975	AAC R-18-2-721
Overland Conveyor 4	5,865 tph	-	OC4	1975	AAC R-18-2-721
Radial Stacker 5	5,865 tph	-	RST5	1975	AAC R-18-2-721
Overland Conveyor – Operating Scenario 2					
Discharge Conveyor C-7	5,865 tph	-	PC-DC7	TBD	AAC R-18-2-721
Overland Conveyor Apron Feeder 1	5,865 tph	-	PC-TAF1	TBD	AAC R-18-2-721
Overland Conveyor C-8	5,865 tph	-	OC-OC8	TBD	AAC R-18-2-721
Dust Collector for PC-DC7 to PC-TAF1 and PC-TAF1 to OC-OC8 Transfers	15,000 acfm	-	AE-003	TBD	AAC R-18-2-721
Overland Conveyor C-9	5,865 tph	-	OC-OC9	TBD	AAC R-18-2-721

EQUIPMENT TYPE	MAX. CAPACITY	MAKE/ MODEL	SERIAL NUMBER/ EQUIP ID	DOM.	NSPS/SIP
Dust Collector for OC-OC8 to OC-OC9 Transfer	12,000 acfm		AE-016	TBD	AAC R-18-2-721
Radial Stacker C-10	5,865 tph	-	OC-RS10	TBD	AAC R-18-2-721
Dust Collector for OC-OC9 to OC-RS10 Transfer	12,000 acfm	-	AE-017	TBD	AAC R-18-2-721
Discharge Conveyor C-2	5,865 tph	-	OC2	2005	AAC R-18-2-721
Overland Conveyor Apron Feeder 2	5,865 tph	-	PC-TAF2	TBD	AAC R-18-2-721
Dust Collector for OC2 to PC-TAF2, PC-TAF2 to OC-OC8, and OC2 to OC3 Transfers	20,000 acfm	-	AE-001	TBD	AAC R-18-2-721
Overland Conveyor 3	5,865 tph	-	OC3	1975	AAC R-18-2-721
Dust Collector OC3 to OC4 Transfer	12,000 acfm		AE-014	TBD	AAC R-18-2-721
Overland Conveyor 4	5,865 tph	-	OC4	1975	AAC R-18-2-721
Dust Collector for OC4 to RST5 Transfer	12,000 acfm	-	AE - 015	TBD	AAC R-18-2-721
Radial Stacker 5	5,865 tph	-	RST5	1975	AAC R-18-2-721
Emergency Grizzly System (AOS)					
Bar Grizzlies	5,000 tph	-	EG1, EG2	TBD	NSPS Subpart LL
Apron Feeders	5,000 tph	-	EGAF1, EGAF2	TBD	AAC R-18-2-721
Belt Conveyors	5,000 tph	-	EGBC1, EGBC2	TBD	AAC R-18-2-721
Mill – Grinding Lines 1-5					
Grinding Line 1					
Vibrating Feeder 1	797 tph	Syntron	GL1-VF1	1976	AAC R-18-2-721
Vibrating Feeder 2	797 tph	Syntron	GL1-VF2	1976	AAC R-18-2-721
Vibrating Feeder 3	797 tph	Syntron	GL1-VF3	1976	AAC R-18-2-721
Vibrating Feeder 4	797 tph	Syntron	GL1-VF4	1976	AAC R-18-2-721
Belt Conveyor A	797 tph	-	GL1-BCA	1976	AAC R-18-2-721
Primary Grinding Mill	2,280 tph	Koppers	GL1-GM1	1976	AAC R-18-2-721
Vibrating Screen	2,280 tph	General Kinematics	GL1-VS1	1976	AAC R-18-2-721
Belt Conveyor B	797 tph	-	GL1-BCB	1976	AAC R-18-2-721
Secondary Crusher	850 tph	Nordberg / Series 800	GL1-SC1	2008	NSPS Subpart LL
Scrubber for GL1-SC1		Ducon / UW-4	C1	1976	NSPS Subpart LL
Secondary Grinding Mill	2,378 tph	Koppers	GL1-GM2	1976	AAC R-18-2-721
Grinding Line 2					
Vibrating Feeder 1	797 tph	Syntron	GL2-VF1	1976	AAC R-18-2-721
Vibrating Feeder 2	797 tph	Syntron	GL2-VF2	1976	AAC R-18-2-721
Vibrating Feeder 3	797 tph	Syntron	GL2-VF3	1976	AAC R-18-2-721
Vibrating Feeder 4	797 tph	Syntron	GL2-VF4	1976	AAC R-18-2-721
Belt Conveyor A	797 tph	-	GL2-BCA	1976	AAC R-18-2-721
Primary Grinding Mill	2,280 tph	Koppers	GL2-GM1	1976	AAC R-18-2-721
Vibrating Screen	2,280 tph	General Kinematics	GL2-VS1	1976	AAC R-18-2-721
Belt Conveyor B	797 tph	-	GL2-BCB	1976	AAC R-18-2-721
Secondary Crusher	850 tph	Nordberg / Series 800	GL2-SC2	2008	NSPS Subpart LL
Scrubber for GL1-SC2		Ducon / UW-4	C2	1976	NSPS Subpart LL
Secondary Grinding Mill	2,378 tph	Koppers	GL2-GM2	1976	AAC R-18-2-721
Grinding Line 3					
Vibrating Feeder 1	797 tph	Syntron	GL3-VF1	1976	AAC R-18-2-721
Vibrating Feeder 2	797 tph	Syntron	GL3-VF2	1976	AAC R-18-2-721

EQUIPMENT TYPE	MAX. CAPACITY	MAKE/ MODEL	SERIAL NUMBER/ EQUIP ID	DOM.	NSPS/SIP
Vibrating Feeder 3	797 tph	Syntron	GL3-VF3	1976	AAC R-18-2-721
Vibrating Feeder 4	797 tph	Syntron	GL3-VF4	1976	AAC R-18-2-721
Belt Conveyor A	797 tph	-	GL3-BCA	1976	AAC R-18-2-721
Primary Grinding Mill	2,280 tph	Koppers	GL3-GM1	1976	AAC R-18-2-721
Vibrating Screen	2,280 tph	General Kinematics	GL3-VS1	1976	AAC R-18-2-721
Belt Conveyor B	797 tph	-	GL3-BCB	1976	AAC R-18-2-721
Secondary Crusher	500 tph	MP-800	GL3-SC3	1999	NSPS Subpart LL
Scrubber for GL1-SC3		Ducon UW-4	C3	1976	NSPS Subpart LL
Secondary Grinding Mill	2,378 tph	Koppers	GL3-GM2	1976	AAC R-18-2-721
Grinding Line 4					
Vibrating Feeder 1	1231 tph	Syntron	GL4-VF1	1981	AAC R-18-2-721
Vibrating Feeder 2	1231 tph	Syntron	GL4-VF2	1981	AAC R-18-2-721
Vibrating Feeder 3	1231 tph	Syntron	GL4-VF3	1981	AAC R-18-2-721
Vibrating Feeder 4	1231 tph	Syntron	GL4-VF4	1981	AAC R-18-2-721
Belt Conveyor A	1231 tph	-	GL4-BCA	1981	AAC R-18-2-721
Primary Grinding Mill	2,280 tph	Koppers	GL4-GM1	1981	AAC R-18-2-721
Vibrating Screen	2,280 tph	General Kinematics	GL4-VS1	1997	NSPS Subpart LL
Belt Conveyor B	1231 tph	-	GL4-BCB	1981	AAC R-18-2-721
Secondary Crusher	850 tph	Nordberg / Series 800	GL4-SC4	TBD	NSPS Subpart LL
Scrubber for SC4		Ducon UW-4	C4	TBD	NSPS Subpart LL
Secondary Grinding Mill	2,378 tph	Koppers	GL4-GM2	1981	AAC R-18-2-721
Grinding Line 5					
Vibrating Feeder 1	1231 tph	Syntron	GL5-VF1	1989	AAC R-18-2-721
Vibrating Feeder 2	1231 tph	Syntron	GL5-VF2	1989	AAC R-18-2-721
Vibrating Feeder 3	1231 tph	Syntron	GL5-VF3	1989	AAC R-18-2-721
Vibrating Feeder 4	1231 tph	Syntron	GL5-VF4	1989	AAC R-18-2-721
Belt Conveyor A	1231 tph	-	GL5-BCA	1989	NSPS Subpart LL
Primary Grinding Mill	2,280 tph	Koppers	GL5-GM1	1989	NSPS Subpart LL
Vibrating Screen	2,280 tph	General Kinematics	GL5-VS1	1989	NSPS Subpart LL
Belt Conveyor B	1231 tph	-	GL5-BCB	1988	NSPS Subpart LL
Secondary Crusher	850 tph	Nordberg / Series 800	GL5-SC5	TBD	NSPS Subpart LL
Scrubber for GL1-SC5		Emtrol / W-40	C5	2006	NSPS Subpart LL
Secondary Grinding Mill	2,378 tph	Bolden Allis	GL5-GM2	1989	NSPS Subpart LL
Satellite Crushing Plant – Operating Scenario 1					
Belt Conveyor 1	1,726 tph	-	SCP-BC1	1992	NSPS Subpart LL
Belt Conveyor 2	1,726 tph	-	SCP-BC2	1992	NSPS Subpart LL
Storage Bin	600 tons	-	SCP-SB1	1992	NSPS Subpart LL
Belt Conveyor 3	1,726 tph	-	SCP-BC3	1992	NSPS Subpart LL
Secondary Crusher	1,726 tph	Nordberg	SCP-SC1	1992	NSPS Subpart LL
Belt Conveyor 4	1,504 tph	-	SCP-BC4	1992	NSPS Subpart LL
Belt Conveyor 5	1,504 tph	-	SCP-BC5	1992	NSPS Subpart LL
Belt Conveyor 6	1,504 tph	-	SCP-BC6	1992	NSPS Subpart LL
Belt Conveyor 7	1,504 tph	-	SCP-BC7	1992	NSPS Subpart LL
Scrubber for SCP-SC1		Emtrol W-40	C41	1992	NSPS Subpart LL
Vibrating Screen	1,504 tph	Allis-Chalmers	SCP-VS1	1992	NSPS Subpart LL
Hydrocyclones	1,504 tph	-	SCP-HC	1992	NSPS Subpart LL
Belt Conveyor 8	1,504 tph	-	SCP-BC8	1992	NSPS Subpart LL
Belt Conveyor 9	1,504 tph	-	SCP-BC9	1992	NSPS Subpart LL
Belt Conveyor 10	1,504 tph	-	SCP-BC10	1992	NSPS Subpart LL

EQUIPMENT TYPE	MAX. CAPACITY	MAKE/ MODEL	SERIAL NUMBER/ EQUIP ID	DOM.	NSPS/SIP
Storage Bin w/Vibrating Feeder	400 tons	-	SCP-SB2/ SCP-VFS	1992	NSPS Subpart LL
Belt Conveyor	1,504 tph	-	SCP-BC11	1992	NSPS Subpart LL
Tertiary Crusher	1,504 tph	Nordberg	SCP-TC1	1992	NSPS Subpart LL
<i>Satellite Crushing Plant – Operating Scenario 2</i>					
Vibrating Feeder 1	475 tph	NA	SC-VF1	TBD	AAC R-18-2-721
Vibrating Feeder 2	475 tph	NA	SC-VF1	TBD	AAC R-18-2-721
Vibrating Feeder 3	475 tph	NA	SC-VF1	TBD	AAC R-18-2-721
Vibrating Feeder 4	475 tph	NA	SC-VF1	TBD	AAC R-18-2-721
Coarse Ore Reclaim Conveyor	3,279 tph	NA	SC-RC	TBD	NSPS Subpart LL
Sizing Screen 1	1,640 tph	NA	SC-SS1	TBD	NSPS Subpart LL
Sizing Screen 2	1,640 tph	NA	SC-SS2	TBD	NSPS Subpart LL
Sizing Screen Oversize Conveyor	1,379 tph	NA	SC-OC	TBD	NSPS Subpart LL
Dust Collector for SC-SS1, SC-SS2, and SS1/SS2 to SC-OC Transfer	50,000 acfm	NA	AE-008	TBD	NSPS Subpart LL
Sizing Screen Oversize Transfer Conveyor	1,379 tph	NA	SC-OTC	TBD	NSPS Subpart LL
Dust Collector for SC-OC to SC-OTC Transfer	12,000 acfm	NA	AE-009	TBD	NSPS Subpart LL
Storage Bin	400 tons	NA	SCP-SB2	1992	NSPS Subpart LL
Secondary Crusher Belt Feeder	1,379 tph	NA	SC-BF	TBD	NSPS Subpart LL
Secondary Crusher	1,379 tph	Nordberg	SCP-SC1	1992	NSPS Subpart LL
Secondary Crusher Product Conveyor	1,379 tph	NA	SC-PC	TBD	NSPS Subpart LL
Dust Collector for SC-OTC to SCp-SB2 and SC-BF to SCP-SC1 Transfers, SCP-SC1, and SCP-SC1 to SC-PC Transfer, and Sizing Screen Undersize to HPGR-FBC	20,000 acfm	NA	AE-010	TBD	NSPS Subpart LL
Secondary Crusher Product Transfer Conveyor	1,379 tph	NA	SC-PTC	TBD	NSPS Subpart LL
Dust Collector for SC-PC to SC-PTC Transfer	12,000 acfm	NA	AE-011	TBD	NSPS Subpart LL
Dust Collector for SC-PTC to SC-RC Transfer	12,000 acfm	NA	AE-007	TBD	NSPS Subpart LL
HPGR Feed bin Conveyor	2,843 tph	NA	HPGR-FBC	TBD	NSPS Subpart LL
HPGR Transfer Coveyor	2,843 tph	NA	HPGR-TC	TBD	NSPS Subpart LL
HPGR Surge Bin	2,000 tons	NA	HPGR-SB	TBD	NSPS Subpart LL
HPGR Belt Feeder	2,843 tph	NA	HPGR-BF	TBD	NSPS Subpart LL
High Pressure Grinding Roll	2,843 tph	NA	HPGR-HPGR	TBD	NSPS Subpart LL
HPGR Discharge Conveyor	2,843 tph	NA	HPGR-DC	TBD	NSPS Subpart LL
Dust Collector for HPGR-TC, HPGR-BF, HPGR-HPGR, HPGR-DC	33,000 acfm	NA	AE-012	TBD	NSPS Subpart LL

EQUIPMENT TYPE	MAX. CAPACITY	MAKE/ MODEL	SERIAL NUMBER/ EQUIP ID	DOM.	NSPS/SIP
Wet Screen Bin Feed Conveyor	2,843 tph	NA	HPGR-BFC	TBD	NSPS Subpart LL
Wet Screen Surge Bin	300 Tons	NA	HPGR-SB	TBD	NSPS Subpart LL
Dust Collector for HPGR-BFC, HPGR-SB	18,000 acfm	NA	AE-013	TBD	NSPS Subpart LL
Wet Screen Feeder #1	1,422 tph	NA	HPGR-BF1	TBD	NSPS Subpart LL
Wet Screen Feeder #2	1,422 tph	NA	HBGR-BF2	TBD	NSPS Subpart LL
Wet Screen #1	1,422 tph	NA	HPGR-WS1	TBD	NSPS Subpart LL
Wet Screen #2	1,422 tph	NA	HPGR-WS2	TBD	NSPS Subpart LL
Wet Screens Oversize Transfer Conveyor	943 tph	NA	HPGR-OTC	TBD	NSPS Subpart LL
Ball Mill	6,127 tph	NA	BM-DL	TBD	NSPS Subpart LL
Ball Mill Tramp Grizzly	6,127 tph	NA	BM-TG	TBD	NSPS Subpart LL
Flotation Plant and Concentrator Plant					
Tramp Reject Screen		Allis-Chalmers	TRS1	1975	AAC R-18-2-721
Regrind Mill	1,057 tph	Koppers	RM1	1975	AAC R-18-2-721
Tramp Reject Screen		Allis-Chalmers	TRS2	1981	AAC R-18-2-721
Regrind Mill	1,057 tph	Koppers	RM2	1981	AAC R-18-2-721
Tramp Reject Screen		-	TRS3	TBD	NSPS Subpart LL
Regrind Mill	1,057 tph	-	RM3	TBP	NSPS Subpart LL
Copper/Moly Flotation		-	CMF	1976	AAC R-18-2-721
Moly Dryer	3.1 tph	Holflite/Joy1D714-4	MD1	1976	AAC R-18-2-721
Moly Dryer	3.1 tph	Holflite/Joy1D714-4	MD2	1990	NSPS Subpart LL
Wet Scrubber for Moly Dryer		Sly Impinjet, Model 220	C12	1990	NSPS Subpart LL
Surge Bin/Bagger	3.1 tph	-	MPSBB	1976	AAC R-18-2-721
Screw Conveyors 1	3.1 tph	-	MDSC1	1976	AAC R-18-2-721
Screw Conveyors 2	3.1 tph	-	MDSC2	1990	AAC R-18-2-721
Screw Conveyors	3.1 tph	-	MLSC1, MLSC2	2006	AAC R-18-2-721
Screw Conveyors	3.1 tph	-	MPSC1, MPSC2	1976	AAC R-18-2-721
Screw Conveyors	3.1 tph	-	MSC-1, MSC-2	2004	AAC R-18-2-721
Natural Gas Copper Concentrate Dryer	19.8 MMBtu/hr	Koppers Hardinge	CuD	1999	NSPS Subpart LL
Wet Scrubber for CuD		Ducon UW-4, Model III	C14	1999	NSPS Subpart LL
Belt Conveyor	126 tph	-	CuBC1a	1976	AAC R-18-2-721
Belt Conveyor	126 tph	-	CuBC1b	1976	AAC R-18-2-721
Belt Conveyor	126 tph	-	CuBC2a	1976	AAC R-18-2-721
Belt Conveyor	126 tph	-	CuBC2b	1976	AAC R-18-2-721
Ceramic Filter System	65 tph	-	CFS	TBP	AAC R-18-2-721
Concentrate Regrind Mill			RF-RM	TBC	NSPS Subpart LL
Thermal Systems Boiler					
Natural Gas Heater	1.5 MMBtu/hr	First Thermal Systems/100-3-1-HTF	C13	1976	AAC R18-2-724
Lime Handling System					
Lime Unloading Hopper	13 tph	-	LHS-HOP	1976	AAC R18-2-730
Belt Conveyor	13 tph	-	LHS-BC1	1976	AAC R18-2-730
Lime Storage Bin	500 tons	-	LHS-LSB1	1976	AAC R18-2-730
Baghouse on LHS-LSB1		PULSEFLO PF 4508-25	C15	1976	AAC R18-2-730
Lime Weigh Feeder	13 tph	-	LHS-LWF1	1976	AAC R18-2-730

EQUIPMENT TYPE	MAX. CAPACITY	MAKE/ MODEL	SERIAL NUMBER/ EQUIP ID	DOM.	NSPS/SIP
Lime Grinding Mill	13 tph	Denver	LHS-GM1	1976	AAC R18-2-730
Belt Conveyor	13 tph	-	LHS-BC2	TBD	AAC R18-2-730
Lime Weigh Feeder	13 tph	-	LHS-LWF2	TBD	AAC R18-2-730
Lime Grinding Mill	13 tph	-	LHS-GM2	TBD	AAC R18-2-730
Lime Storage Bin	700 tons	-	LHS-LSB2	TBD	AAC R18-2-730
Baghouse on LHS-LSB2		-	C62	TBD	AAC R18-2-730
Lime Weigh Feeder	13 tph	-	LHS-LWF3	TBD	AAC R18-2-730
Lime Grinding Mill	13 tph	Denver	LHS-GM3	TBD	AAC R18-2-730
<i>Solution Extraction/Electrowinning</i>					
Mixers	465 ft ³ each	-	-	1969	AAC R18-2-730
Settlers	7,225 ft ³ each	-	-	1969	AAC R18-2-730
Mixers	358 ft ³ each	-	-	1969	AAC R18-2-730
Loaded Organic Solution Tanks	63,585 gal	-	LOST	1969	AAC R18-2-730
Rich Electrolytic Solution Tank	10,569 gal	-	REST	1969	AAC R18-2-730
Electrowinning Cells	24 ft ³ each	-	C23	1969, 1993, 2003	AAC R18-2-730
Hot Water Pressure Washers(2)	400,000 btu/hr each	-	-	-	AAC R18-2-724
Settling Tank	240 Gallons/hr	TBD / TBD	TBD / M-ST	TBD	AAC R18-2-730
CCD Thickeners (2)	26,280 tpy	TBD / TBD	TBD / M-CCD 1 and 2	TBD	AAC R18-2-730
Mixer Extraction Settlers (2)	131.4 MMGal/yr	TBD / TBD	TBD / M-MXS1 and 2	TBD	AAC R18-2-730
Mixer Washer Settler	131.4 MMGal/yr	TBD / TBD	TBD / M-MWS	TBD	AAC R18-2-730
Mixer Stripper Settler	131.4 MMGal/yr	TBD / TBD	TBD / M-MSS	TBD	AAC R18-2-730
<i>Natural Gas Fired Water Heater and Electrolyte Heater</i>					
Heater	8 MMBtu/Yr	QuikWater/8000-2M/900	C23b	1996	AAC R18-2-724
Electrolyte Heater	47,654 MMBtu/Yr	-	G5	2003	AAC R18-2-724
<i>Leaching</i>					
Concentrate Receiving Hopper	10.5 tph	-	CRH	2002	NSPS Subpart LL
Concentrate Belt Feeder	10.5 tph	-	CBF	2002	NSPS Subpart LL
Package Boiler	25 MMBtu/hr	-	G1	2002	NSPS Subpart Dc
Pressure Leach Vessel	10.5 tph	-	G2	2002	AAC R18-2-730
Primary Venturi Scrubber for G2	19,950 acfm	-	CH-02	2002	AAC R18-2-730
Secondary Venturi Scrubber for G2	23,990 acfm	-	CH-03	2002	AAC R18-2-730
Cooling Tower	4,000 gpm	-	G3	2002	AAC R18-2-730
Lime Storage Bin	40 tons	-	LSB-G4	2003	AAC R18-2-730
Baghouse for LSB-G4	TBD	-	G4	2003	AAC R18-2-730
Sample Preparation Baghouse		Wheelabrator 5-MOD-112-D	C16	1976	AAC R18-2-721
Concentrate Feed Hopper	35,040 tpy	TBD / TBD	TBD / M-CFH	TBD	NSPS Subpart LL
Concentrate Belt Feeder	35,040 tpy	TBD / TBD	TBD / M-BFd	TBD	NSPS Subpart LL

EQUIPMENT TYPE	MAX. CAPACITY	MAKE/ MODEL	SERIAL NUMBER/ EQUIP ID	DOM.	NSPS/SIP
Screw Conveyor 1	35,040 tpy	TBD / TBD	TBD / M-SC1	TBD	AAC R18-2-721
Steam Deoiler	35,040 tpy	TBD / TBD	TBD / M-SD	TBD	NSPS Subpart LL
Natural Gas Steam Generator	4.5 MMBtu/hr	TBD / TBD	TBD / M-SG	TBD	AAC R18-2-724
Natural Gas Deoiler Heater	6.5 MMBtu/hr	TBD / TBD	TBD / M-DH	TBD	AAC R18-2-724
Venturi Scrubber	26.28 MMcf/yr	TBD / TBD	TBD / M-VS	TBD	NSPS Subpart LL
Packed Scrubber	26.28 MMcf/yr	TBD / TBD	TBD / M-PS	TBD	NSPS Subpart LL
Flare	0.255 MMBtu/hr	TBD / TBD	TBD / M-F	TBD	N/A
Belt Filter	26,280 tpy	TBD / TBD	TBD / M-BFlt	TBD	AAC R18-2-721
Filter 2	26,280 tpy	TBD / TBD	TBD / M-PF	TBD	AAC R18-2-721
MoO3 Hopper	26,280 tpy	TBD / TBD	TBD / M-MoH	TBD	NSPS Subpart LL
Screw Conveyor 2	26,280 tpy	TBD / TBD	TBD / M-SC2	TBD	AAC R18-2-721
MoO ₃ Storage Bin	75 ft ³	TBD / TBD	TBD / M-SB	TBD	NSPS Subpart LL
Internal Combustion Engines (Emergency)					
Mullholland Wash Generator	18.3 gph	Mullholland	C39	1991	AAC R18-2-719
Mammoth Wash Generator	44.9 gph	Mammoth	C40	1991	AAC R18-2-719
Propane Generator	20 HP	Dayton / 4W117L	3016626	2005	AAC R18-2-719
Diesel Compressor	525 HP	Sullair / 1600HDAFTQ	004-144488	1999	AAC R18-2-719
Diesel Generator	1800 HP	Marathon Electric / 628FDR8416GG-P724W	NN-3106446	1996	AAC R18-2-719
Natural Gas Generator	17 HP	Onan / 12.5JC-3CR/88295	370160436	2000	AAC R18-2-719
Natural Gas Generator	20 HP	Onan / 15OJC-18R/22042AB	G840717224	1999	AAC R18-2-719
Gasoline Pump	12 HP	Kohler / M125	1728905643	Early 1990	AAC R18-2-719
Propane Generator	40 HP	Genrac Power Systems / 0053360	4636845	2006	AAC R18-2-719
Diesel Generator	47 – 59 HP	Dayton / # 4W121	837532	1990	AAC R18-2-719
Natural Gas Generator	40 HP	Genrac Power Systems / 4688110100	2080545	2005	AAC R18-2-719
Natural Gas Generator	40 HP	Genrac Power Systems / 0052420	4479209	2005	AAC R18-2-719
Gasoline Dispensing Facilities					
Gas Dispensing Facility	12,000 gal		FT-3	TBD	AAC R18-2-710 / NESHAP Subpart CCCCCC
Gas Dispensing Facility	12,000 gal	-	558777 / #150	1996	AAC R18-2-710 / NESHAP Subpart CCCCCC
Additive Feeding System					
Additive Bulk Bag Unloader	0.9 tph	Carolina Conveying, Inc.	ABBU	2004	AAC R18-2-730
Baghouse for ABBU		Unimaster / UMA 70	G6	2004	AAC R18-2-730
Additive Mix Tank	2,300 Gallons	-	C-4069-02	2004	AAC R18-2-730
Additive Storage Tank	2,300 Gallons	-	C-04-09975	2004 / 2005	AAC R18-2-730

EQUIPMENT TYPE	MAX. CAPACITY	MAKE/ MODEL	SERIAL NUMBER/ EQUIP ID	DOM.	NSPS/SIP
Portable Aggregate System					
Hopper	500 tph	United Machinery	PASH	1992	NSPS Subpart 000
Grizzly	500 tph	United Machinery	PASG	1992	NSPS Subpart 000
Jaw Crusher	290 tph	United Machinery	PASJC	1992	NSPS Subpart 000
Belt Conveyor	500 tph	United Machinery	PASBC1	1992	NSPS Subpart 000
Screen	260 tph	United Machinery	PASSC	1992	NSPS Subpart 000
Belt Conveyor	500 tph	United Machinery	PASBC2	1992	NSPS Subpart 000
Cone Crusher	240 tph	United Machinery	PASCC	1992	NSPS Subpart 000
Stacker	500 tph	United Machinery	PASST	1992	NSPS Subpart 000
Miscellaneous Boilers					
Truck Wash Boilers	362,000 BTU / hr	Sioux Steam Cleaner / 360-H	99508	1992	AAC R18-2-724
Teledyne Lannis Boiler	511,500 BTU / hr	Ray Pak / H3-0514	0511243305	2005	AAC R18-2-724
Natural Gas Boiler	400, 000 BTU / hr	Sioux Steam Cleaner / 370-H	99507	1992	AAC R18-2-724
Mine Area and Shop Heaters and Furnaces					
Glau Heaters (17)	50,000 BTU / hr	Glau		-	A.A.C.R18-2-724
Glau Heaters (32)	100,000 BTU / hr	Glau		-	A.A.C.R18-2-724
Glau Heaters (1)	150,000 BTU / hr	Glau		-	A.A.C.R18-2-724
Glau Heaters (1)	180,000 BTU / hr	Glau		-	A.A.C.R18-2-724
Glau Heaters (3)	50,000 BTU / hr	Glau		-	A.A.C.R18-2-724
Shwank Heaters(8)	50,000 BTU / hr	Shwank			A.A.C.R18-2-724
Shwank Heaters(3)	100,000 BTU / hr	Shwank			A.A.C.R18-2-724
Shwank Heaters(1)	70,000 BTU / hr	Shwank			A.A.C.R18-2-724
Sterling Duct Furnace (1)	400,000 BTU / hr	Sterling			A.A.C.R18-2-724
Sterling Duct Furnace (1)	250,000 BTU / hr	Sterling			A.A.C.R18-2-724
Dayton Suspended Heater (1)	75,000 BTU / hr	Dayton			A.A.C.R18-2-724
Shwank Heaters(1)	100,000 BTU / hr	Shwank			A.A.C.R18-2-724
Shwank Heaters(2)	24,000 BTU / hr	Shwank			A.A.C.R18-2-724
Shwank Heaters(9)	100,000 BTU / hr	-Shwank		-	A.A.C.R18-2-724
Sterling Duct Furnace (1)	250,000 BTU / hr	-Sterling		-	A.A.C.R18-2-724
SX/EW Heaters /					
Glau Heaters (1)	100,000 BTU / hr	Glau		-	A.A.C.R18-2-724
Glau Heaters (4)	35,000 BTU / hr	Glau			A.A.C.R18-2-724
Glau Heaters (7)	71,000 BTU / hr	Glau		-	A.A.C.R18-2-724
Glau Heaters (4)	90,000 BTU / hr	Glau		-	A.A.C.R18-2-724
Glau Heaters (2)	90,000 BTU / hr	Glau		-	A.A.C.R18-2-724
Gas Heaters (2)	50,000 BTU / hr			-	A.A.C.R18-2-724
Gas Heaters (14)	50,000 BTU / hr			-	A.A.C.R18-2-724
Gas Heaters (3)	50,000 BTU / hr			-	A.A.C.R18-2-724