



ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

AIR QUALITY CLASS I PERMIT

COMPANY: Mineral Park, Inc.
FACILITY: MPI Facility
PERMIT #: 44232
DATE ISSUED:
EXPIRATION DATE:

SUMMARY

This Class I Air Quality Control Permit is issued to Mineral Park, Inc. ("MPI" and "the Permittee"), located at 8275 Mineral Park Road, Golden Valley, AZ 86413, for a facility located approximately 15 miles northwest of Kingman, and five miles east of Highway 93 on Mineral Park Road. This new Class I Permit, which supersedes Class II Permit Number 31989, is for the continued operation of a copper leaching solvent extraction-electrowinning (SX/EW) process, and the construction and operation of a new 50,000 ton-per-day (maximum design basis) mining, milling, and flotation recovery operation producing copper-silver and molybdenum concentrates.

Air pollutant emissions are primarily the result of the mining, sizing and conveyance of metallic ore. The primary pollutants are particulate matter (PM), particulate matter with an aerodynamic diameter less than or equal to 10 microns (PM₁₀) and carbon monoxide (CO). Emissions of other pollutants, including sulfur dioxide (SO₂), nitrogen oxides (NO_x), volatile organic compounds (VOC) and hazardous air pollutants (HAP) are emitted from this source.

This permit is issued in accordance with the Arizona Revised Statutes (A.R.S.). It contains requirements from Arizona Administrative Code (A.A.C.) Title 18, Chapter 2 and the Code of Federal Regulations (C.F.R.).

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ATTACHMENT "A": SPECIFIC CONDITIONS

Air Quality Control Permit No. 44232 For Mineral Park, 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, 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. Additional applicable requirements under the Clean Air Act become applicable to the Class I source. Such a reopening shall only occur if there are three or more years remaining in the permit term. The reopening shall be completed no later than 18 months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless an application for renewal has been submitted pursuant to A.A.C. R18-2-322.B. Any permit revision required pursuant to this subparagraph shall comply with the provisions in A.A.C. R18-2-322 for permit renewal and shall reset the five-year permit term.
 2. Additional requirements, including excess emissions requirements, become applicable to an affected source under the acid rain program. Upon approval by the Administrator, excess emissions offset plans shall be deemed to be incorporated into the Class I permit.

3. The Director or the Administrator determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.
 4. 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, except for reopenings under Condition III.B.1 above, affect only those parts of the permit for which cause to reopen exists. Such reopenings shall be made as expeditiously as practicable. Permit reopenings for reasons other than those stated in Condition III.B.1 above shall not result in a resetting of the five-year permit term.

IV. POSTING OF PERMIT

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

- A. The Permittee shall post this permit or a certificate of permit issuance where the facility is located in such a manner as to be clearly visible and accessible. All equipment covered by this permit shall be clearly marked with one of the following:
1. Current permit number; or
 2. Serial number or other equipment ID number that is also listed in the permit to identify that piece of equipment.
- B. A copy of the complete permit shall be kept on site.

V. FEE PAYMENT

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

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

VI. ANNUAL EMISSION INVENTORY QUESTIONNAIRE

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

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

VII. COMPLIANCE CERTIFICATION

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

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

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. Identification of the methods or other means used by the Permittee for determining the compliance status with each term and condition during the certification period;
 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. For emission units subject to 40 CFR Part 64, the certification shall also identify as possible exceptions to compliance any period during which compliance is required and in which an excursion or exceedance defined under 40 CFR Part 64 occurred;
 5. All instances of deviations from permit requirements reported pursuant to Condition XII.B of this Attachment; and
 6. Other facts the Director may require to determine the compliance status of the source.
- B.** A copy of all compliance certifications shall also be submitted to the EPA Administrator.
- C.** If any outstanding compliance schedule exists, a progress report shall be submitted with the semi-annual compliance certifications required in Condition VII.A above.

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

5. This provision is in addition to any emergency or upset provision contained in any applicable requirement.

D. Compliance Schedule

[ARS § 49-426.I.5]

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

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

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

1. Applicability

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

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

2. Affirmative Defense for Malfunctions

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

- a. The excess emissions resulted from a sudden and unavoidable breakdown of process equipment or air pollution control equipment beyond the reasonable control of the Permittee;
- b. The air pollution control equipment, process equipment, or processes were at all times maintained and operated in a manner consistent with good practice for minimizing emissions;
- c. If repairs were required, the repairs were made in an expeditious fashion when the applicable emission limitations were being exceeded. Off-shift labor and overtime were utilized where practicable to ensure that the repairs were made as

expeditiously as possible. If off-shift labor and overtime were not utilized, the Permittee satisfactorily demonstrated that the measures were impracticable;

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

3. Affirmative Defense for Startup and Shutdown

- a. Except as provided in Condition XII.E.3.b below, and unless otherwise provided for in the applicable requirement, emissions in excess of an applicable emission limitation due to startup and shutdown shall constitute a violation. When emissions in excess of an applicable emission limitation are due to startup and shutdown, the Permittee has an affirmative defense to a civil or administrative enforcement proceeding based on that violation, other than a judicial action seeking injunctive relief, if the Permittee has complied with the reporting requirements of A.A.C. R18-2-310.01 and has demonstrated all of the following:
 - (1) The excess emissions could not have been prevented through careful and prudent planning and design;
 - (2) If the excess emissions were the result of a bypass of control equipment, the bypass was unavoidable to prevent loss of life, personal injury, or severe damage to air pollution control equipment, production equipment, or other property;
 - (3) The air pollution control equipment, process equipment, or processes were at all times maintained and operated in a manner consistent with good practice for minimizing emissions;
 - (4) The amount and duration of the excess emissions (including any bypass operation) were minimized to the maximum extent practicable during periods of such emissions;

- (5) All reasonable steps were taken to minimize the impact of the excess emissions on ambient air quality;
 - (6) During the period of excess emissions there were no exceedances of the relevant ambient air quality standards established in Title 18, Chapter 2, Article 2 of the Arizona Administrative Code that could be attributed to the emitting source;
 - (7) All emissions monitoring systems were kept in operation if at all practicable; and
 - (8) Contemporaneous records documented the Permittee's actions in response to the excess emissions.
- b. If excess emissions occur due to a malfunction during routine startup and shutdown, then those instances shall be treated as other malfunctions subject to Condition XII.E.2 above.

4. Affirmative Defense for Malfunctions during Scheduled Maintenance

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

5. Demonstration of Reasonable and Practicable Measures

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

XIII. RECORD KEEPING REQUIREMENTS

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

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

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

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

XIV. REPORTING REQUIREMENTS

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

The Permittee shall submit the following reports:

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

XV. DUTY TO PROVIDE INFORMATION

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

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

XVI. PERMIT AMENDMENT OR REVISION

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

- A. The Permittee may make changes at the permitted source without a permit revision if all of the following apply:
 - 1. The changes are not modifications under any provision of Title I of the Act or under ARS § 49-401.01(19);

2. The changes do not exceed the emissions allowable under the permit whether expressed therein as a rate of emissions or in terms of total emissions;
 3. The changes do not violate any applicable requirements or trigger any additional applicable requirements;
 4. The changes satisfy all requirements for a minor permit revision under A.A.C. R18-2-319.A; and
 5. The changes do not contravene federally enforceable permit terms and conditions that are monitoring (including test methods), record keeping, reporting, or compliance certification requirements.
- B.** The substitution of an item of process or pollution control equipment for an identical or substantially similar item of process or pollution control equipment shall qualify as a change that does not require a permit revision, if it meets all of the requirements of Conditions XVII.A and XVII.C of this Attachment.
- C.** For each change under Conditions XVII.A and XVII.B above, a written notice by certified mail or hand delivery shall be received by the Director and the Administrator a minimum of 7 working days in advance of the change. Notifications of changes associated with emergency conditions, such as malfunctions necessitating the replacement of equipment, may be provided less than 7 working days in advance of the change, but must be provided as far in advance of the change, as possible or, if advance notification is not practicable, as soon after the change as possible.
- D.** Each notification shall include:
1. When the proposed change will occur;
 2. A description of the change;
 3. Any change in emissions of regulated air pollutants; and
 4. Any permit term or condition that is no longer applicable as a result of the change.
- E.** The permit shield described in A.A.C. R18-2-325 shall not apply to any change made under this Section, other than implementation of an alternate to Conditions XVII.A and XVII.B above.
- F.** Except as otherwise provided for in the permit, making a change from one alternative operating scenario to another as provided under A.A.C. R18-2-306.A.11 shall not require any prior notice under this Section.
- 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, do not satisfy Condition XVII.A above.

XVIII. TESTING REQUIREMENTS

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

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

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

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

D. Test Plan

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

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

E. Stack Sampling Facilities

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

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

F. Interpretation of Final Results

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

the first run is commenced shall constitute a failure of the test. Supporting documentation, which demonstrates good cause, must be submitted.

G. Report of Final Test Results

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

XIX. PROPERTY RIGHTS

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

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

XX. SEVERABILITY CLAUSE

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

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

XXI. PERMIT SHIELD

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

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

XXII. PROTECTION OF STRATOSPHERIC OZONE

[40 CFR Part 82]

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

ATTACHMENT "B": SPECIFIC CONDITIONS

Air Quality Control Permit No. 44232 For Mineral Park, Inc.

I. RELATIONSHIP OF PERMIT TO APPLICABLE STATE IMPLEMENTATION PLAN

[ARS § 49-404.c and -426]

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

II. FACILITY-WIDE LIMITATIONS

A. Operating Limitations

Within 120 days of initial startup, the Permittee shall submit to the Director an Operation and Maintenance (O&M) plan which provides adequate information to properly operate and maintain the equipment in good working order. The O&M plan shall be incorporated into this permit through the appropriate permitting revision process. The O&M plan shall include the operating parameter ranges required for Compliance Assurance Monitoring and establish baseline opacities. The Permittee shall adhere to the O&M plan during the permitting review process.

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

B. Monitoring, Recordkeeping and Reporting Requirements

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. The Permittee shall keep the O&M Plan on-site and available for review.
[A.A.C. R18-2-306.A.4]
3. 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]
4. The most recent two years of records required to be kept by Condition XIII of "Attachment A" shall be kept on-site.
[A.A.C. R18-2-306.A.4]
5. The Permittee shall maintain records of all emission-related maintenance activities performed and make them available to ADEQ upon request.
[A.A.C. R18-2-306.A.3.c]
6. No later than 30 days after installation, or upon start-up, whichever is earlier, the Permittee shall provide the make, model and date of manufacture for such equipment as listed in Attachment "C".
[A.A.C. R18-2-306.A.3.c]

C. General Requirements for Compliance Assurance Monitoring (CAM)

[40 CFR 64.7(c)]

1. Except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the Permittee shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the emission points are operating. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of this part, including data averages and calculations, or fulfilling a minimum data availability requirement, if applicable. The Permittee shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.
2. Response to excursions
 - a. Upon detecting an excursion or exceedance, the Permittee shall restore operation of the emission point (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown, or malfunction, and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action, or any necessary follow-up actions to return operations to within the indicator range, designated condition, or below applicable emission limitation or standard, as applicable.
[40 CFR 64.7(d)(1)]
 - b. Determination of whether the Permittee has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include but is not limited to, monitoring results, review of operation, and maintenance procedures and records, and inspection of the control device, associated capture system, and process.
[40 CFR 64.7(d)(2)]
3. After approval of monitoring under this part, if the Permittee identifies a failure to achieve compliance with an emission limitation or standard for which the approved monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing indicator ranges or designated conditions, the Permittee shall promptly notify the Department, and if necessary, submit a proposed modification to this permit to address the necessary monitoring changes. Such a modification may include, but is not limited to, re-establishing indicator ranges or designated conditions, modifying the frequency of conduction monitoring and collecting data, or the monitoring of additional parameters.
[40 CFR 64.7(e)]
4. Excursions shall be reported as required by Condition VII.4 of Attachment "A" of this permit. The report shall include, at a minimum, the following: [A.A.C. R18-2-309(2)(c)(iii)]

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

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

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

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

D. Periodic Opacity Monitoring for Emission Units not subject to CAM

1. Within 90 days of initial operation of the emission units identified as subject to this condition in Sections III and IV of this Attachment the Permittee shall conduct certified EPA Method 9 observations for the process sources subject to this condition while operating at normal representative working conditions, to establish a baseline opacity level. The Permittee shall include the determined baseline opacities in the O&M plan.

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

2. After the baseline opacity is established, a certified Method 9 observer shall conduct a bi-weekly (once every two weeks) visual survey of visible emissions from the process sources subject to this condition when they are in operation. The Permittee shall keep a record of the name of the observer, the date on which the observation was made, and the results of the observation.

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

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

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

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

a. Location, date, and time of the observation; and

b. The results of the Method 9 observation.

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

5. 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 to reduce the observed opacity to or below the baseline opacity level. The observer shall make a record of the following:

a. Location, date, and time of the observation;

b. The results of the Method 9 observation;

c. Date and time when corrective action was taken; and

d. Type of corrective action taken.

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

6. If the six-minute opacity of the plume exceeds the applicable opacity standard, then the Permittee shall do the following:
 - a. Adjust or repair the controls or equipment to reduce opacity to or below the baseline level; and
 - b. Report it as an excess emission for opacity.

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

7. If necessitated by the results of the bi-weekly monitoring, the Permittee may re-establish the baseline opacity level(s). Re-establishment of the baseline(s) shall be performed utilizing the same procedures used in setting up the initial baseline level(s). 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(s).

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

III. PROCESS OPERATIONS - Quarry Crushing, Conveying and Material Handling Operations

A. Applicability

The conditions of this Section apply to all emission units identified under the "Quarry Crushing, Conveying and Material Handling Operations" section of Attachment "C" of this permit.

B. Operating Limitations

1. Production Limitations

- a. *The Permittee shall not operate any emission units identified in Section III.A in excess of 20 hours per day.*
- b. *The total material processed by the equipment identified in Section III.A shall not exceed 55,000 tons/day.*

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

2. Monitoring and Recordkeeping

- a. *The Permittee shall install, calibrate, maintain and operate monitoring devices, which can be used to determine daily material throughput to individual process units.*
- b. The Permittee shall record the start-up and shut-down times of the equipment subject to this Section.

[A.A.C. R18-2-306.A.3.c]
- c. The Permittee shall record the daily throughputs for equipment subject to this Section.

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

C. Particulate Matter (PM/PM₁₀) and Opacity

1. Emission Limitations and Standards

On and after the sixtieth day after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup, 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. Air Pollution Control Requirements

a. *The Permittee shall, to the extent practicable, install, operate and maintain a combination dry fog and water spray dust suppression systems with wind barriers to control particulate emissions from the dump hoppers 10-HO-100 and 10-HO-200.*

[A.A.C. R18-2-306.01 and -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 a dry fog dust suppression system with wind barriers to control particulate emissions from the discharge points associated with 10-AF-110, 10-AF-210, 10-SN-115, 10-SN-215, 10-CR-120 and 10-CR-220.*

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

[Material Permit Conditions are indicated by underline and italics]

c. *The Permittee shall, to the extent practicable, install, operate and maintain water sprays to control particulate emissions from the discharge points associated with transfer conveyors 10-CV-130, 10-CV-230, 10-CV-160 and 10-CV-260.*

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

[Material Permit Conditions are indicated by underline and italics]

3. Monitoring, Record keeping and Reporting Requirements

a. *The Permittee shall install, calibrate, maintain and operate a programmable control and alarm system for each dry fog dust suppression system. The system shall continuously monitor the water flow rate and supply pressure to the fogging nozzles.*

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

[Material Permit Conditions are indicated by underline and italics]

b. Each programmable control monitor with alarm system must be certified by the manufacturer and must be calibrated on an annual basis in accordance with manufacturer's instructions.

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

c. Compliance Assurance Monitoring (CAM)

(1) Applicability

All equipment controlled by the dry fogging dust suppression systems with wind barriers listed in Condition III.C.2.a and b above.[40 CFR 64.2]

(2) Indicators

Water flow rate, water supply pressure to the fogging nozzle and visible emissions.

[40 CFR 64.3(a)(1)]

(3) Monitoring Approach

(a) Instrumentation

The water flow rate monitor and water supply pressure monitor will be in continuous operation and a reading of each shall be recorded at least once per shift.

(b) Visible Emissions

(i) A certified Method 9 observer shall conduct a visual survey of each fogging area at least once per week to determine if there are apparent visible emissions.

(ii) If visible emissions are observed, the observer shall, if practical, take a six-minute Method 9 observation of the visible emission.

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

(4) QA/QC

Operate and maintain the flow rate monitor and water supply pressure monitor in a manner consistent with good air pollution control practices. This includes weekly inspections of the dry fogging system and annual inspections of the flow and pressure monitors. Operator alarms shall be installed and used to indicate excursions. Only certified Method 9 personnel shall perform the observations of visible emissions.

[40 CFR 64.3(b)(3)]

(5) Indicator Range

(a) Instrumentation

Normal operating parameter range for water flow rate and water supply pressure as established within 90 days of initial start up and documented in the O&M Plan.

[40 CFR 64.3(a)(2) & (3)]

(b) Visible Emissions

Visible emissions below the baseline opacity established within 90 days of initial start up and documented in the O&M Plan.

[40 CFR 64.3(a)(2) & (3)]

(6) Excursions Determinations:

(a) Instrumentation

Water flow rate or water supply pressure outside of normal operating parameter ranges as established in Condition III.C.3.c(5)(a).

[40 CFR 64.6(c)(2)]

(b) Visible Emissions

Opacity as measured by Reference Method 9, in excess of baseline opacity established in Condition III.C.3.c.5.b.

[40 CFR 64.6(c)(2)]

d. All emission units not subject to the requirements of 40 CFR 64 shall comply with the monitoring requirements of Section II.D.

4. Testing Requirements for Particulate Matter and Opacity

a. The Permittee shall determine initial compliance with the opacity standard in Condition III.C.1 as follows:

Method 9 and the procedures in 40 CFR 60.11 shall be used to determine opacity from 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)]

b. The Permittee shall conduct quarterly six-minute EPA Method 9 opacity observations on all emission units identified in Section III.A.

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

5. Permit Shield

Compliance with the conditions of this Section shall be deemed compliance with 40 CFR 60.382(b), 386(b), and 40 CFR 64.

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

IV. PROCESS OPERATIONS – Ore Reclaim and Mill Material Handling Operations

A. Applicability

The conditions of this Section apply to all emission units identified under the "Ore Reclaim and Mill Material Handling Operations" section of Attachment "C" of this permit.

B. Operating Limitations

1. Production Limitations

a. *The total material processed by each reclaim belt feeder (15-BF-100, 15-BF-105, 15-BF-200 and 15-BF-205) shall not exceed 1,500 tons per hour.*

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

[Material Permit Conditions are indicated by underline and italics]

- b. *The amount of lime loaded into the lime bin (60-BN-100) shall not exceed 44 tons per hour.* [A.A.C. R18-2-306.01 and -331.A.a]

[Material Permit Conditions are indicated by underline and italics]

- c. *The amount of lime transferred to conveyor (60-CV-103) from the lime bin (60-BN-100) shall not exceed 250 tons per day.*

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

[Material Permit Conditions are indicated by underline and italics]

- d. *The total material processed in the Dry Solids Lab Equipment that vents to Dust Collector (10-DC-200) shall not exceed 200 pounds per hour.*

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

[Material Permit Conditions are indicated by underline and italics]

- e. *The total material processed in the Molybdenum Concentrate Dryer (55-DY-130) shall not exceed 2.1 tons per hour.*

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

[Material Permit Conditions are indicated by underline and italics]

- f. *The total material processed in the Molybdenum Concentrate Load Out System Dryer (55-ZM-140) shall not exceed 3.1 tons per hour.*

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

[Material Permit Conditions are indicated by underline and italics]

2. Monitoring and Recordkeeping

- a. *The Permittee shall install, calibrate, maintain and operate monitoring devices, which can be used to determine hourly and daily material throughput to individual process units identified in Condition IV.B.1.*

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

[Material Permit Conditions are indicated by underline and italics]

- b. The Permittee shall record the hourly and daily throughputs for equipment identified in Condition IV.B.1.

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

C. Particulate Matter (PM/PM₁₀) and Opacity

1. Emission Limitations and Standards

- a. On and after the date on which the performance test required to be conducted by 40 CFR 60.8 is completed, 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)]

- b. *The Permittee shall not allow the emissions from the common stack of 15-DC-170/171 or 15-DC-270/271 to exceed 2.1 pounds per hour of PM or 1.2 pounds per hour of PM₁₀.*

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

[Material Permit Conditions are indicated by underline and italics]

- c. The Permittee shall not allow the emissions from the stack of 60-DC-100 to exceed 1.9 pounds per hour of PM or 1.3 pounds per hour of PM₁₀.
 [A.A.C. R18-2-306.01 and -331.A.3.a]
 [Material Permit Conditions are indicated by underline and italics]
- d. The Permittee shall not allow the emissions from the stack of 10-DC-200 to exceed 0.000069 pounds per hour of PM or 0.000039 pounds per hour of PM₁₀.
 [A.A.C. R18-2-306.01 and -331.A.3.a]
 [Material Permit Conditions are indicated by underline and italics]
- e. The Permittee shall not allow the emissions from the stack of 55-DC-170 to exceed 2.9 pounds per hour of PM or 2.5 pounds per hour of PM₁₀.
 [A.A.C. R18-2-306.01 and -331.A.3.a]
 [Material Permit Conditions are indicated by underline and italics]
- f. On and after the date on which the performance test required to be conducted by 40 CFR 60.8 is completed, the Permittee shall not cause to be discharged into the atmosphere from an affected facility any stack emissions that exhibit greater than 7 percent opacity, unless the stack emissions are discharged from an affected facility using a wet scrubbing emission control device.
 [40 CFR 60.382(a)(2) and A.A.C. R18-2-331.A.3.a]
 [Material Permit Conditions are indicated by underline and italics]
- g. On and after the sixtieth day after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup, 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.a]
 [Material Permit Conditions are indicated by underline and italics]

2. Air Pollution Control Requirements

- a. The Permittee shall, to the extent practicable, install, operate and maintain dust collectors to control particulate emissions from 15-BF-100, 15-BF-105, 15-BF-200, 15-BF-205, 15-CV-110, 15-CV-210, 60-BN-100 and the dry solids lab.
 [A.A.C. R18-2-306.01 and -331.A.3.d and .e]
 [Material Permit Conditions are indicated by underline and italics]
- b. The Permittee install, operate and maintain a monitor to measure the pressure change across the filter media on each dust collector identified in Condition IV.C.2.a.
 [A.A.C. R18-2-306.01 and -331.A.3.d and .e]
 [Material Permit Conditions are indicated by underline and italics]
- c. The Permittee shall, to the extent practicable, install, operate and maintain a wet scrubber to control particulate emissions from molybdenum concentrate dryer unit 55-DY-130.
 [A.A.C. R18-2-306.01 and -331.A.3.d and .e]
 [Material Permit Conditions are indicated by underline and italics]

3. Monitoring, Recordkeeping and Reporting Requirements

- a. Dust Collectors 15-DC-170, 15-DC-171, 15-DC-270 and 15-DC-271
- (1) The Permittee shall perform an annual inspection of each dust collector to verify suitable operational conditions in accordance with the O&M Plan.

[A.A.C. R18-2-306]
 - (2) The Permittee shall record the pressure drop (or gain) across the filter of each dust collector on a weekly basis. If the pressure drop (or gain) is in excess of that specified by O&M Plan or $\pm 30\%$ of the average obtained during the most recent performance test, the Permittee shall report the results to the Director in accordance with Condition XIV of "Attachment A".

[A.A.C. R18-2-306.A.3 & A.5]
- b. All emission units not subject to the requirements of 40 CFR 64 shall comply with the monitoring requirements of Section II.D.
- c. After the initial performance test of a wet scrubber, the owner or operator shall submit semiannual reports to the Director 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 submitted with the reports required by Condition VII.A of Attachment "A".

[40 CFR 60.385(c) and (d)]
- d. Compliance Assurance Monitoring (CAM)
- (1) Applicability

The equipment controlled by the venturi wet scrubber identified in Condition IV.C.2.b.

[40 CFR 64.2]
 - (2) Indicators

Scrubber liquid flow rate, scrubber air stream pressure drop and visible emission observations.

[40 CFR 64.3(a)(1)]
 - (3) Monitoring Approach
 - (a) Instrumentation

The scrubber liquid flow rate and air stream pressure drop monitors shall be in continuous operation and readings of each shall be recorded at least once per day.

[40 CFR 64.3(b)(4)(iii) and 40 CFR 60.385(b)]
 - (b) Visible Emissions

- (i) A certified Method 9 observer shall conduct a visual survey of the scrubber exhaust at least once per week to determine if there are visible emissions.
- (ii) If visible emissions are observed, the observer shall, if practical, take a six-minute Method 9 observation of the visible emission.

[40 CFR 64.3(b)(4)(iii)]

(4) QA/QC

Operate and maintain liquid flow and air pressure monitors in a manner consistent with good air pollution control practices. This includes an inspection of the monitors at least once per calendar year. Accuracy of the liquid flow rate monitor shall be within $\pm 5\%$ of the scale. Accuracy of the pressure drop monitor shall be within ± 250 pascals (1 inch water) of the scale. Only a certified Method 9 observer shall perform the observations of visible emissions.

[40 CFR 64.3(b)(3)]

(5) Indicator Range

(a) Instrumentation

For scrubber liquid flow rate and air stream pressure drop: ± 30 percent from the range obtained during the most recent performance test.

[40 CFR 64.3(a)(2) & (3)]

(b) Visible Emissions

Visible emissions below the baseline opacity established within 90 days of initial start up and documented in the O&M Plan.

[40 CFR 64.3(a)(2) & (3)]

(6) Excursions Determinations

(a) Instrumentation

An observed value of scrubber liquid flow rate or air stream pressure drop that differs by more than ± 30 percent from the range obtained during the most recent performance test.

[40 CFR 64.6(c)(2)]

(b) Visible Emissions

Opacity as measured by Reference Method 9, in excess of the baseline opacity established in Condition IV.C.3.d.5

[40 CFR 64.6(c)(2)]

4. Testing Requirements

- a. No later than 180 days after initial start-up of the operations identified in Section III.A, the Permittee shall conduct performance tests for PM and PM₁₀ on each of the common stacks for the paired SAG mill feed conveyor dust collectors (15-DC-170/15-DC-171 or 15-DC-270/15-DC-271) and 60-DC-100. Additional tests on each stack as described, shall be conducted during the third and fifth years of the term of the permit.
 - b. Performance testing shall be conducted using EPA Reference Methods 5 and 201A or 202. [A.A.C R18-2-312]
5. Permit Shield

Compliance with the conditions of this Section shall be deemed compliance with 40 CFR 60.382(a), 382(b), 385(b), 385(c), 385(d), 386(b), and 40 CFR 64. [A.A.C. R18-2-325]

V. PROCESS OPERATIONS – Solvent Extraction and Electro-winning (SX/EW) Operations

A. Applicability

The conditions of this Section apply to the solvent extraction tanks, electro-winning cells and MIBC storage tanks listed in "Attachment C" of this permit.

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

1. Emission Limitations and Standards

- a. The Permittee shall not cause or permit the emission of gaseous or odorous materials from equipment and operations associated with the SX/EW process in such quantities or concentrations as to cause air pollution. [A.A.C. R18-2-730.D]

- b. Materials including solvents or other volatile compounds, acids, and alkalis utilized in the SX/EW process shall be processed, stored, used, and transported in such a manner and by such means that they will not evaporate, leak, escape or otherwise be discharged into the ambient air so as to cause or contribute to air pollution. Where means are available to reduce effectively the contribution to air pollution from evaporation, leakage, or discharge, the installation and use of such control methods, devices, or equipment shall be mandatory. [A.A.C. R18-2-730.F]

- c. Where a stack, vent or other outlet is at such a level that fumes, gas, mist, odor, smoke, vapor, or any combination thereof constituting air pollution is discharged to adjoining property, the Director may require the installation of abatement equipment or the alteration of such stack, vent or other outlet by the Permittee thereof to a degree that will adequately dilute, reduce or eliminate the discharge of air pollution to the adjoining property. [A.A.C. R18-2-730.G]

2. Air Pollution Control Requirements

- a. *The Permittee shall, to the extent practicable, use a low vapor pressure diluent, or other effective means as approved by the Director, of controlling VOC emissions in the solvent extraction plant.*

[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 use at least one of the following in the electro-winning tankhouse:*

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

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

[Material Permit Conditions are indicated by underline and italics]

3. Monitoring, Record keeping and Reporting Requirements

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

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

4. Permit Shield

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

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

VI. PROCESS OPERATIONS - 4.0 MMBtu/hr Boiler

A. Applicability

This Section applies to the 4.0 MMBtu/hr boiler identified in "Attachment C" of this permit.

B. Operating Limitations

The Permittee shall only use liquefied petroleum gas (LPG) as fuel for the operation of the boiler identified in Section A.

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

C. Particulate Matter (PM/PM₁₀) and Opacity

1. Emission Limitations and Standards - Particulate Matter

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

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

Where:

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

Q = The heat input in million Btu per hour. For purposes of this condition, the heat input shall be the aggregate heat content of all fuels whose products of combustion pass through a stack or other outlet.

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

2. Emission Limitations and Standards - Opacity

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

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

3. Monitoring, Record keeping and Reporting Requirements

a. A certified EPA Reference Method 9 observer shall conduct an annual survey of visible emissions emanating from the stack of the boiler when in operation. If the opacity of the emissions observed appears to exceed the standard, the observer shall conduct a certified EPA Reference Method 9 observation. The Permittee shall keep records of the initial survey and any EPA Reference Method 9 observations performed. These records shall include the emission point observed, location of observer, name of observer, date and time of observation, and the results of the observation. If the observation shows a Method 9 opacity reading in excess of 15%, the Permittee shall initiate appropriate corrective action to reduce the opacity below 15%. The Permittee shall keep a record of the corrective action performed.

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

b. 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]

4. Permit Shield

Compliance with the terms of this Section shall be deemed compliance with the requirements of A.A.C. R18-2-702.C, A.A.C. R18-2-724.B, A.A.C. R18-2-724.C.1 and A.A.C. R18-2-724.J.

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

VII. FUGITIVE DUST REQUIREMENTS

A. Applicability

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

B. Operating Limitations

1. *Ore hauling operations shall be limited to 20 hours per day and shall not exceed a total of 90,000 vehicle miles per year.*

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

[Material Permit Conditions are indicated by underline and italics]

2. The Permittee shall maintain a daily record of ore hauling hours of operation.
[A.A.C.R18-2-306.A.3.c and 306.A.4]
3. The Permittee shall maintain, and update monthly, a rolling annual sum of the combined total miles traveled by all haul trucks.
[A.A.C. R18-2-306.A.3.c and 306.A.4]
4. *Ore blasting operations shall be limited to one blast event per day and a maximum of 9.3 tons ANFO per blast event.*
[A.A.C. R18-2-306.01 and 331.A.3.a]
[Material Permit Conditions are indicated by underline and italics]
5. The Permittee shall maintain records of the time, date and tons of ANFO used for each blast events.
[A.A.C.R18-2-306.A.3.c and 331.A.3.a]

C. Particulate Matter (PM/PM₁₀) and Opacity

1. Open Areas, Roadways & Streets, Storage Piles, Mineral Tailings and Material Handling
 - a. Emission Limitations and 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) No person shall cause, suffer, allow, or permit construction of mineral tailing piles without taking reasonable precautions to prevent excessive amounts of particulate matter from becoming airborne. Reasonable precautions shall mean wetting, chemical stabilization, revegetation or such other measures as are approved by the Director.

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

- (i) 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

Haul Roads and Storage Piles

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

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

[Material Permit Condition is indicated by underline and italics]

c. Monitoring and Recordkeeping Requirements

- (1) The Permittee shall maintain records of the dates on which any of the activities listed in Conditions VII.C.1.a(3)(a) through VII.C.1.a(3)(h) above were performed and the control measures that were adopted.

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

(2) Opacity Monitoring Requirements

- (a) A certified Method 9 observer shall conduct a twice per week visual survey of visible emissions from the fugitive dust sources. The Permittee shall keep a record of the name of the observer, the date and location on which the observation was made, and the results of the observation.
- (b) If the observer sees a visible emission from a fugitive dust source that on an instantaneous basis appears to exceed the applicable opacity standard, then the observer shall, if practicable, take a six-minute Method 9 observation of the plume.
 - i. If the six-minute opacity of the visible emission is less than or equal to the applicable opacity standard, the observer shall make a record of the following:
 - a) Location, date, and time of the observation; and
 - b) The results of the Method 9 observation.
 - ii. If the six-minute opacity of the visible emission exceeds the applicable opacity standard, then the Permittee shall do the following:
 - a) Adjust or repair the controls or equipment to reduce opacity to below the applicable opacity standard; and
 - b) Report it as an excess emission under Section XII.A of Attachment "A".

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

d. Permit Shield

Compliance with the conditions of this Section shall be deemed compliance with A.A.C. R18-2-604.A, A.A.C. R18-2-604.B, A.A.C. R18-2-605, A.A.C. R18-2-606, A.A.C. R18-2-607, A.A.C. R18-2-614 and A.A.C. R18-2-702.B.

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

2. Open Burning

a. Emission Limitations and Standards

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

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

b. Monitoring and Recordkeeping Requirement

Compliance with the requirements of Condition VI.B.2.a above may be demonstrated by maintaining copies of all open burning permits on file.

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

c. Permit Shield

Compliance with the conditions of this Section shall be deemed compliance with the requirements of A.A.C. R18-2-602.

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

VIII. GASOLINE STORAGE TANKS

A. Standards and Limitations

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

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

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 Permittee shall install, operate and maintain gasoline storage tanks in accordance with manufacturer's specifications.

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

[Material Permit Conditions are indicated by underline and italics]

B. Monitoring and Recordkeeping Requirements

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

The Permittee shall maintain a storage tank log showing the following:

1. The Permittee shall maintain a file of each type of petroleum liquid stored, the typical Reid vapor pressure of the petroleum liquid stored and the dates of storage. Dates on which the storage vessel is empty shall be shown.

2. The Permittee shall determine and record the average monthly storage temperature and true vapor pressure of the petroleum liquid stored at such temperature if either:

a. The petroleum liquid has a true vapor pressure, as stored, greater than 26 mm Hg (0.5 psia) but less than 78 mm Hg (1.5 psia) and is stored in a storage vessel other than one equipped with a floating roof, a vapor recovery system or their equivalents; or

b. The petroleum liquid has a true vapor pressure, as stored, greater than 470 mm Hg (9.1 psia) and is stored in a storage vessel other than one equipped with a vapor recovery system or its equivalent.

3. The average monthly storage temperature shall be an arithmetic average calculated for each calendar month, or portion thereof, if storage is for less than a month, from bulk liquid storage temperatures determined at least once every seven days.

4. The true vapor pressure shall be determined by the procedures in American Petroleum Institute Bulletin 2517, amended as of February 1980 (and no future editions), which is incorporated herein by reference and on file with the Office of the Secretary of State. This procedure is dependent upon determination of the storage temperature and the Reid vapor pressure, which requires sampling of the petroleum liquids in the storage vessels. Unless the Director requires in specific cases that the stored petroleum liquid be sampled, the true vapor pressure may be determined by using the average monthly storage temperature and the typical Reid vapor pressure. For those liquids for which certified specifications limiting the Reid vapor pressure exist, the Reid vapor pressure may be used. For other liquids, supporting analytical data must be made available upon request to the Director when typical Reid vapor pressure is used.

C. Permit Shield

Compliance with the conditions of this Part shall be deemed compliance with A.A.C. R18-2-710.B, D and E.

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

IX. GASOLINE DISPENSING FACILITIES

A. Applicability

1. This Section applies to each gasoline dispensing facility (GDF) that is located at the source. The affected source includes each gasoline cargo tank during the delivery of product to a GDF and also includes each storage tank.
[40 CFR 63.1111(a)]
2. This Section applies to gasoline storage tanks and associated equipment components in vapor or liquid gasoline service at new, reconstructed, or existing gasoline dispensing facilities located at an area source. Pressure/Vacuum vents on gasoline storage tanks and the equipment necessary to unload product from cargo tanks into the storage tanks at GDF are covered emission sources. The equipment used for the refueling of motor vehicles is not covered by this Section.
[40 CFR 63.1112(a)]
3. The Permittee shall comply with the standards in this Section no later than January 10, 2011.
[40 CFR 63.1113(b)]
4. *The Permittee shall not allow the throughput of gasoline to exceed 10,000 gallons per month.*
[A.A.C. R18-2-306.01 and 331.A.3.a]
[Material permit conditions are indicated by underline and italics]
5. The equipment associated with this Section is subject to the NESHAP General Provisions, as described in Table 3 to 40 CFR 63 Subpart CCCCCC.
[40 CFR 63.11130]

B. Emission Standards

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

[40 CFR 63.1116(a)]

- a. Minimize gasoline spills;
 - b. Clean up spills as expeditiously as practicable;
 - c. Cover all open gasoline containers and all gasoline storage tank fill-pipes with a gasketed seal when not in use;
 - d. Minimize gasoline sent to open waste collection systems that collect and transport gasoline to reclamation and recycling devices, such as oil/water separators.
2. The Permittee shall have records available within 24 hours of a request by the Administrator or Director to document the gasoline throughput. [40 CFR 63.11116(b)]
 3. The Permittee shall comply with the requirements of this Section by the applicable dates specified in Conditions IX.A.3. [40 CFR 63.11116(c)]

C. Recordkeeping Requirements

The Permittee shall maintain a monthly log of the throughput of the storage tank. [A.A.C. R18-2-306.A.3.c]

D. Permit Shield

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

Compliance with Section IX shall be deemed compliance with 40 CFR 63.11111(a), 40 CFR 63.11112(a), 40 CFR 63.11113(b), 40 CFR 63.11130, 40 CFR 63.11116(a), 40 CFR 63.11116(b), and 40 CFR 63.11116(c).

X. 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 are 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 (PM/PM₁₀) and Opacity

1. Emission Limitations and 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 the conditions of this Section shall be deemed compliance with the requirements of 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]

XI. OTHER PERIODIC ACTIVITY REQUIREMENTS

A. Abrasive Blasting

Particulate Matter and Opacity

1. Emission Limitations and Standards

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

(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 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 and Standards

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

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

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

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

- (a) Employ, apply, evaporate, or dry any architectural coating containing photochemically reactive solvents for industrial or commercial purposes; or
- (b) Thin or dilute any architectural coating with a photochemically reactive solvent.

(3) For the purposes of Condition IX.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 IX.B.1.a.(3)(a) through IX.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 IX.B.1.a.(3)(a) through IX.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 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 IX.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. Asbestos - Hazardous Air Pollutants

1. Emission Limitations and Standards

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. 44232
For
Mineral Park, Inc.

EQUIPMENT TYPE (ID)	MAX. CAPACITY	MAKE	MODEL	SERIAL NUMBER	DATE OF MFG.
Solvent Extraction (SX) and Electro-winning (EW) Operations: SX/EW Operations					
LPG Boiler (100)	4 MMBtu/hr	Raypeck, Inc.	H3-4001A-CDCRCDA	115456	1990
Solvent Extraction Tanks (300)	4 Tanks	Unknown	Unknown	Unknown	1990
Electro-winning Cells (400)	60 Cells	Unknown	Unknown	Unknown	1990
Quarry Cushing, Conveying and Material Handling Operations					
Dump Hopper (10-HO-100)	150 tons	Terra Nova Technologies	Unknown	Unknown	3/2008
Dump Hopper (10-HO-200)	150 tons	Terra Nova Technologies	Unknown	Unknown	3/2008
Apron Feeder (10-AF-110)	2,500 tons/hr	Stephens-Adamson	72-29	TBD	TBD
Apron Feeder (10-AF-210)	2,500 tons/hr	Stephens-Adamson	72-29	TBD	TBD
Vibrating Grizzly (10-SN-115)	3,250 tons/hr	Terex/ Simplicity	OA-160-D	TBD	TBD
Vibrating Grizzly (10-SN-215)	3,250 tons/hr	Terex/ Simplicity	OA-160-D	TBD	TBD
Double Toggle Jaw Crusher (10-CR-120)	1,691 tons/hr	Fuller Traylor	56-72	70-20619-721	TBD
Double Toggle Jaw Crusher (10-CR-220)	1,691 tons/hr	Fuller Traylor	56-72	70-20619-721	TBD
Primary Crusher Discharge Conveyer (10-CV-130)	3,500 tons/hr	Terra Nova Technologies	Unknown	Unknown	3/2008
Primary Crusher Discharge Conveyer (10-CV-230)	3,500 tons/hr	Terra Nova Technologies	Unknown	Unknown	3/2008
Combined Transfer Conveyer and Fixed Stacker (10-CV-160)	3,500 tons/hr	Terra Nova Technologies	Unknown	Unknown	3/2008
Combined Transfer Conveyer and Fixed Stacker (10-CV-260)	3,500 tons/hr	Terra Nova Technologies	Unknown	Unknown	3/2008

ATTACHMENT "C": EQUIPMENT LIST (Continued)

EQUIPMENT TYPE (ID)	MAX. CAPACITY	MAKE	MODEL	SERIAL NUMBER	DATE OF MFG.
Ore Reclaim and Mill Material Handling Operations					
Coarse Ore Reclaim Belt Feeder (15-BF-100)	1,500 tons/hr	Terra Nova Technologies	Unknown	Unknown	3/2008
Coarse Ore Reclaim Belt Feeder (15-BF-105)	1,500 tons/hr	Terra Nova Technologies	Unknown	Unknown	3/2008
Coarse Ore Reclaim Belt Feeder (15-BF-200)	1,500 tons/hr	Terra Nova Technologies	Unknown	Unknown	3/2008
Coarse Ore Reclaim Belt Feeder (15-BF-205)	1,500 tons/hr	Terra Nova Technologies	Unknown	Unknown	3/2008
SAG Feed Conveyer (15-CV-110)	2,313 tons/hr	Terra Nova Technologies	Unknown	Unknown	3/2008
SAG Feed Conveyer (15-CV-210)	2,313 tons/hr	Terra Nova Technologies	Unknown	Unknown	3/2008
Lime Bin (60-BN-100)	380 tons	Tank Connection	TBD	TBD	TBD
Lime Screw Conveyer (60-CV-103) **	10 tons/hr	TBD	TBD	TBD	TBD
Dry Solids Lab with Dust Collector (10-DC-200)	5,200 CFM	TBD	TBD	TBD	TBD
Copper Concentrate Operations					
Molybdenum Concentrate Screw Transfer Conveyer (55-CV-120) **	3.2 tons/hr (10% moisture)	TBD	TBD	TBD	TBD
Molybdenum Concentrate Electric Dryer (55-DY-130)	3.1 tons/hr	Holo-Flite Dryer	D1218-5	TBD	TBD
Molybdenum Concentrate Load Out System (55-ZM-140) **	3.1 tons/hr	Hapman Bulk Bag Filler Unit	TBD	TBD	TBD
Electric Oil Heater (55-HE-175) **	57.3 gal/min	Thermal Fluid	TBD	TBD	TBD
Copper Concentrate Filter Cake Conveyer (50-CV-120) **	35 tons/hr (8% moisture)	TBD	TBD	TBD	TBD
Copper Concentrate Storage (50-SB-150) **	2,100 tons	TBD	TBD	TBD	TBD

** Not emission units. Included for completeness.

ATTACHMENT "C": EQUIPMENT LIST (Continued)

EQUIPMENT TYPE (ID)	MAX. CAPACITY	MAKE	MODEL	SERIAL NUMBER	DATE OF MFG.
Copper Concentrate Operations (continued)					
60-TK-150	9,400 gallons	Unknown	Unknown	Unknown	1990
60-TK-155	2,000 gallons	Unknown	Unknown	Unknown	1990
60-TK-156	1,500 gallons	Unknown	Unknown	Unknown	1990