

**PIMA COUNTY DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR PROGRAM**

33 N. Stone Avenue, Suite 700 • Tucson, Arizona 85701 • Phone: (520) 243-7400

AIR QUALITY INSTALLATION

&

OPERATING PERMIT

(As required by Title 17.12, Article II, Pima County Code)

ISSUED TO

ORACLE RIDGE MINING, LLC

SAN MANUEL, ARIZONA 85631

This air quality operating permit does not relieve applicant of responsibility for meeting all air pollution regulations

THIS PERMIT ISSUED SUBJECT TO THE FOLLOWING: **Conditions contained in Parts A and B AND Attachments 1 and 2.**

PERMIT NUMBER **6134**

PERMIT CLASS **II**

ISSUED: _____

EXPIRES: _____

SIGNATURE

TITLE

Mukonde Chama, Air Permits Supervisor, PDEQ

SUMMARY

This permit is issued as an air quality installation and operating permit to Oracle Mining Corporation, Inc. dba Oracle Ridge Mining, LLC (ORM). Oracle Mining Corporation changed its name from Gold Hawk Resources Inc in August 2011. Oracle Ridge Mining is a subsidiary of Oracle Mining Corporation. The mine is an existing underground copper mine that is located approximately 7 miles from the Summerhaven community north of the Santa Catalina Mountains in Pima County inside Township 11 South, Range 16 East. ORM plans to re-open the mine which has been closed for over than 10 years. The mine is composed of two operations; the mine facilities and the tailings facility, separated from the mine facilities by a distance of approximately two miles. There is an estimated eight to ten million tons of ore reserves that are planned to be mined. The processing rate is anticipated to average 2,000 short tons per day (STPD) from the crusher. ORM has proposed a limit of 3,000 STPD (150 STPH) through the concentrator plant. Minor amounts of gold and silver will be recovered as well to minimize environmental impacts. ORM will consider magnetite processing in the future should it become economically feasible.

Emissions from the facility will consist primarily of fugitive and non fugitive particulate matter (PM) from ore transfer and drop points, unpaved roads, tailing operations and concentrator reagents. There are negligible emissions from the stationary combustion sources as they will only operate during emergencies. The facility plans to control fugitive emissions at the facility using a dust control program that will control emissions by a combination of methods including, but not limited to, retention of native vegetation, application of dust and erosion chemical suppressants, road watering etc. ORM is required to submit a Tailings and Dust Management Plan for approval by the Control Officer.

The facility plans to operate 20 hours per day, 365 days per year except during routine maintenance, shutdown or repair of equipment.

The following facility-wide emissions are for informational purposes only and are used to establish a “baseline” of emissions for the initial issuance of the permit. They are not intended to be enforceable emission limits unless otherwise noted in Part B of this permit.

The emission rates were obtained from information contained in the application submitted October 14, 2011 and updated through the permitting process.

Emission Source	Pollutant (tons/yr)							
	PM	PM ₁₀	NO _x	SO ₂	CO	VOC	H ₂ S	HAP _s (Total)
Facility Non-Fugitive Emissions	7.4	7.4	2.74	0.06	0.62	0.08		0.0034
Facility Process Fugitive Emissions	12.91	12.91						
Facility Fugitive Emissions (includes PM & PM₁₀ Unpaved Roads)	38.29	38.29				33.94	9.6	0.0211
Total Facility Emissions (Excludes True PM₁₀ Fugitive Emissions)	7.4	7.4	2.74	0.06	0.62	34.02	9.6	0.0245

ORM is a Class II, synthetic minor source for single HAPs (H₂S) and a true minor for all other pollutants including combined Hazardous Air Pollutants (HAPs). The facility is a Class II source due to the applicability of the New Source Performance Standards (NSPS) for Metallic Mineral Processing Plants and Stationary Internal Combustion Engines.

All terms and conditions of this permit are not Federally Enforceable by the Administrator of the United States Environmental Protection Agency (U.S.EPA) under the Clean Air Act, except as otherwise noted.

DRAFT PERMIT

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PART A: GENERAL PROVISIONS

(References to A.R.S. are references to the Arizona Revised Statutes, references to A.A.C. are references to the Arizona Administrative Code, and references to PCC are references to Title 17 of the Pima County Code)

I. PERMIT EXPIRATION AND RENEWAL

[PCC 17.12.165.C.2 & PCC 17.12.185.A.1]

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

II. COMPLIANCE WITH PERMIT CONDITIONS

[PCC 17.12.185.A.8.a & b]

- A. The Permittee shall comply with all conditions of this permit including all applicable requirements of Arizona air quality statutes A.R.S. Title 49, Chapter 3, and Pima County air quality rules. Any permit noncompliance is grounds for enforcement action; for permit termination, revocation and reissuance, or revision; or for denial of a permit renewal application. In addition, noncompliance with any federally enforceable requirement constitutes a violation of the Clean Air Act.
- B. It shall not be a defense for a Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

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

[PCC 17.12.185.A.7.c & PCC 17.12.270]

- 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, or 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 Act become applicable to a major source. Such reopening shall only occur if there are three or more years remaining in the permit term. The reopening shall be completed not later than 18 months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to PCC 17.12.280. Any permit reopening required pursuant to this paragraph shall comply with provisions in PCC 17.12.280 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 Control Officer 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 Control Officer 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 issue a permit, including appeal of any final action relating to a permit reopening, shall follow the same procedures as apply to initial permit issuance and shall 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 paragraph III.B.1 of Part A shall not result in the resetting of the five-year permit term.

IV. POSTING OF PERMIT

[PCC 17.12.080]

The Permittee shall maintain a complete copy of the complete permit shall be kept onsite. If it is not feasible to maintain a copy of the permit onsite the Permittee may request in writing, to maintain a copy of the permit at an alternate location. Upon written approval by the Control Officer, the Permittee must maintain a complete copy of the permit at the approved alternative location.

V. FEE PAYMENT

[PCC 17.12.185.A.8 & PCC 17.12.510]

The Permittee shall pay fees to the Control Officer pursuant to PCC 17.12.510.

VI. ANNUAL EMISSIONS INVENTORY QUESTIONNAIRE

[PCC 17.12.320]

- A. When requested by the Control Officer, the Permittee shall complete and submit an annual emissions inventory questionnaire. The questionnaire is due by March 31 or ninety days after the Control Officer makes the request and provides the inventory form 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 or approved by the Control Officer and shall include the information required by PCC 17.12.320.

VII. CERTIFICATION OF TRUTH, ACCURACY AND COMPLETENESS

[PCC 17.12.165.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 and any other certification required by this permit shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

VIII. INSPECTION AND ENTRY

[PCC 17.12.220.A.4]

The Permittee shall allow the Control Officer or the authorized representative of the Control Officer upon presentation of proper credentials to:

- A. Enter upon the Permittee's premises where a source is located or 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.

IX. PERMIT REVISION PURSUANT TO FEDERAL HAZARDOUS AIR POLLUTANT STANDARD [PCC 17.12.165.C.3]

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.

X EXCESS EMISSIONS, PERMIT DEVIATIONS, AND EMERGENCY REPORTING [PCC 17.12.040]

A. Excess Emissions Reporting [PCC 17.12.040]

1. Excess emissions shall be reported as follows:

a. The Permittee shall report to the Control Officer any emissions in excess of the limits established by this permit. The report shall be in 2 parts as specified below:

i. Notification by telephone or facsimile within 24 hours of the time the Permittee first learned of the occurrence of excess emission that includes all available information from 17.12.040.B. The number to call to report excess emissions is **520-243-7400**. The facsimile number to report excess emissions is **520-838-7432**.

ii. Detailed written notification by submission of an excess emissions report within 72 hours of the notification under X.A.1.a.i of Part A above.

Send to PDEQ Air Program, 33 N. Stone Avenue, Ste 700, Tucson, Arizona 85701.

b. The excess emission report shall contain the following information:

i. The identity of each stack or other emission point where the excess emission occurred;

ii. The magnitude of the excess emissions expressed in the units of the applicable emission limitation and the operating data and calculations used in determining the magnitude of the excess emissions;

iii. The time and duration or expected duration of the excess emissions;

iv. The identity of the equipment from which the excess emissions emanated;

- v. The nature and cause of the emissions;
- vi. The steps taken, if the excess emissions were the result of a malfunction, to remedy the malfunction and the steps taken or planned to prevent the recurrence of the malfunctions; and
- vii. The steps that were or are being taken to limit the excess emissions; If the source's permit contains procedures governing source operation during periods of startup or malfunction and the excess emissions resulted from startup or malfunction, 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 the 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 subsections XI.A.1.a & b of Part A.

B. Permit Deviations Reporting [PCC 17.12.185.A.5]

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. Notice in accordance with PCC 17.12.185.D.3.d shall be considered prompt for purposes of this permit.

C. Emergency Provision [PCC 17.12.185.D]

- 1. An "Emergency" means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, that requires 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 emission attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventive maintenance, careless or improper operation, or operator error.
- 2. An emergency constitutes an affirmative defense to an action brought for noncompliance with the technology-based emission limitations if the conditions of PCC 17.12.185.D.3 are 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 or causes of the emergency;
 - b. At the time of the emergency, the permitted facility was being properly operated;
 - 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 Control Officer by certified mail or hand delivery within two (2) 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 § 49-480.F.3 & 5]

For any excess emission or permit deviation that cannot be corrected with 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.

[PCC 17.12.035]

1. Applicability

This rule establishes affirmative defenses for certain emission in excess of a n 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. E.P.A., or
- d. Included in a permit to meet the requirements of PCC 17.16.590.A.5.

2. Affirmative Defense for Malfunctions

Emissions in excess of an applicable emission limitation due to malfunction shall constitute a violation. The owner or operator of a source with emissions in excess of an applicable emission limitation due to malfunction 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 owner or operator of the source has complied with the reporting requirements of XIII.B of this Part 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 operator;

- 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 owner or operator 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 PCC Chapter 17.08 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 X.E.3.b of Part A, 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. The owner or operator of a source with emissions in excess of an applicable emission limitation due to startup and shutdown 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 owner or operator of the source has complied with the reporting requirements of XII.B of Part A and has demonstrated all of the following:
 - i. The excess emissions could not have been prevented through careful and prudent planning and design;
 - ii. If the excess emissions were the result of a bypass of control equipment, the bypass was unavoidable to prevent loss of life, personal injury, or severe damage to air pollution control equipment, production equipment, or other property;

- iii. The source's air pollution control equipment, process equipment, or processes were at all times maintained and operated in a manner consistent with good practice for minimizing emissions;
 - iv. The amount and duration of the excess emissions (including any bypass operation) were minimized to the maximum extent practicable during periods of such emissions;
 - v. All reasonable steps were taken to minimize the impact of the excess emissions on ambient air quality;
 - vi. During the period of excess emissions there were no exceedances of the relevant ambient air quality standards established in PCC Chapter 17.08 that could be attributed to the emitting source;
 - vii. All emissions monitoring systems were kept in operation if at all practicable; and
 - viii. The Permittee's actions in response to the excess emissions were documented by contemporaneous records.
- 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 X.E.2 of Part A.
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 X.E.2 of Part A.
5. Demonstration of Reasonable and Practicable Measures

For an affirmative defense under X.E.2 or 3 of Part A, the Permittee of the source shall demonstrate, through submission of the data and information required by this Section and XII.B, that all reasonable and practicable measures within the owner or operator's control were implemented to prevent the occurrence of the excess emissions.

XI. RECORDKEEPING REQUIREMENTS

[PCC 17.12.185.A.4]

- A. The Permittee shall keep records of all required monitoring information including, where applicable, 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 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.

XII. REPORTING REQUIREMENTS

[PCC 17.12.185.A.5]

The Permittee shall comply with all of the reporting requirements of this permit. These include all of the following:

- A. Excess emissions; permit deviations, and emergency reports in accordance with X of Part A.
- B. Performance test results in accordance with XVI.F of Part A.
- C. Reporting requirements listed in Part B of this permit.

XIII. DUTY TO PROVIDE INFORMATION

[PCC 17.12.185.A.7.e & PCC 17.12.165.G]

- A. The Permittee shall furnish to the Control Officer, within a reasonable time, any information that the Control Officer 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 Control Officer copies of records required to be kept by the permit.
- B. If the Permittee has failed to submit any relevant facts or if the Permittee 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. In addition, an applicant shall provide additional information as necessary to address any requirements that become applicable to the source after the date it filed a complete application but prior to release of a proposed permit.

XIV. PERMIT AMENDMENT OR REVISION

[PCC 17.12.245, PCC 17.12.255 & PCC 17.12.260]

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 XVI, as follows:

- A. Administrative Permit Amendment (PCC 17.12.245.);
- B. Minor Permit Revision (PCC 17.12.255.);
- C. Significant Permit Revision (PCC 17.12.260.).

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

XV. FACILITY CHANGES WITHOUT A PERMIT REVISION

[PCC 17.12.240]

- A Except for a physical change or change in the method of operation at a Class II source requiring a permit revision under PCC 17.12.235, or a change subject to logging or notice requirements in subsection XV.B or C of Part A, a change at a Class II source shall not be subject to revision, notice, or logging requirements under this Chapter.
- B. Except as otherwise provided in the conditions applicable to an emissions cap created under PCC 17.12.195, the following changes may be made if the source keeps onsite records of the changes according to XV.I of Part A:
1. Implementing an alternative operating scenario, including raw material 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 PCC 17.04.340, Insignificant Activities definition; (a) through (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 Control Officer 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 PCC 17.12.195, 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: seven days. The Control Officer 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: seven 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 Control Officer 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: seven days. For purposes of this subsection, reconstruction of a source or an affected facility shall be presumed if the fixed capital cost of the new components exceeds 50% of the fixed

capital cost of a comparable entirely new source or affected facility and the changes to the components have occurred over the 12 consecutive months beginning with commencement of construction; and

6. A change that will result in the emissions of a new regulated air pollutant above an applicable regulatory threshold but that does not trigger a new applicable requirement for that 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 XV.C of Part A, the written notice shall be by certified mail or hand delivery and shall be received by the Control Officer 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 XV.C of Part A without the required notice by applying for a minor permit revision under PCC 17.12.255 and complying with PCC 17.12.255.D.2 and G.
- F. The permit shield described in PCC 17.12.310 shall not apply to any change made under this Section, other than implementation of an alternate operating scenario under XV.B.1 of Part A.
- G. Notwithstanding any other part of this Section, the Control Officer 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 PCC 17.12.235.A.
- H. If a source change is described under both XV.B and C of Part A, the source shall comply with XV.C of Part A. If a source change is described under both subsections XV.C of Part A and PCC 17.12.235.B, the source shall comply with PCC 17.12.235.B.
- I. A copy of all logs required under XV.B of Part A shall be filed with the Control Officer within 30 days after each anniversary of the permit issue date. If no changes were made at the source requiring logging, a statement to that effect shall be filed instead.
- J. Logging Requirements
1. Each log entry required by a change under PCC 17.12.240.B shall include at least the following information:
 - a. A description of the change, including:
 - i. A description of any process change.

- ii. A description of any equipment change, including both old and new equipment descriptions, model numbers and serial numbers, or any other unique equipment number.
 - iii. A description of any process material change.
- b. The date and time that the change occurred.
 - c. The provision of PCC 17.12.240.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 five years from the date created. Logging shall be performed in indelible ink in a bound log book with sequentially numbered pages, or in any other form, including electronic format, approved by the Control Officer.

XVI. TESTING REQUIREMENTS

[PCC 17.12.050]

A. Operational Conditions during Testing

Performance tests shall be conducted while the unit is operating at full load under representative operational conditions unless other conditions are required by the applicable test method or in this permit. With prior written approval from the Control Officer, testing may be performed at a lower rate. Operations during start-up, shutdown, and malfunction (as defined in PCC 17.04.340.A.) shall not constitute representative operational conditions unless otherwise specified in the applicable requirement.

- B.** Tests shall be conducted and data reduced in accordance with the test methods and procedures contained in the Arizona Testing Manual, 40 CFR 52; Appendices D and E, 40 CFR 60; Appendices A through F; and 40 CFR 61, Appendices B and C unless modified by the Control Officer pursuant to PCC 17.12.050.B. by the Director pursuant to A.A.C. R18-2-312.B.

C. Test Plan

At least 14 calendar days prior to performing a test, the Permittee shall submit a test plan to the Control Officer, in accordance with PCC 17.12.050.D. and the Arizona Testing Manual.

D. 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.

E. 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 means of 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 Control Officer's approval, be determined using the arithmetic mean of the results of the other two runs. If the Control Officer or the Control Officer's designee is present, tests may only be stopped with the Control Officer's or such designee's approval. If the Control Officer or the Control Officer'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.

F. Report of Final Test Results

A written report of the results of all performance tests shall be submitted to the Control Officer within 30 days after the test is performed. The report shall be submitted in accordance with the Arizona Testing Manual and PCC 17.12.050.A.

XVII. PROPERTY RIGHTS

[PCC 17.12.185.A.7.d]

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

XIII. SEVERABILITY CLAUSE

[PCC 17.12.185.A.6]

The provisions of this permit are severable. If any provision of this permit is held invalid, the remainder of this permit shall not be affected thereby.

XIX. ACCIDENT PREVENTION REQUIREMENTS UNDER THE CLEAN AIR ACT (CAA Section 112(r))

Should this stationary source, as defined in 40 CFR Section 68.3, become subject to the accidental release prevention regulations in Part 68, then the Permittee shall submit a risk management plan (RMP) by the date specified in Section 68.10 and shall certify compliance with the requirements of Part 68.

XX. ASBESTOS REQUIREMENTS (Demolition/ Renovation)

Should this stationary source, pursuant to 40 CFR 61, Subpart M become subject to the National Emission Standards for Hazardous Air Pollutants - Asbestos for asbestos regulations when conducting any renovation or demolition at this premises, then the Permittee shall submit proper notification as described in 40 CFR Subpart M and shall comply with all other applicable requirements of subpart M. The Permittee shall keep a record of all relevant paperwork on file. [40 CFR 61, Subpart M]

XXI. STRATOSPHERIC OZONE DEPLETING SUBSTANCES

The Permittee shall not use, sell, or offer for sale any fluid as a substitute material for use in any motor vehicle, residential, commercial, or industrial air conditioning system, refrigerator or freezer unit, or other cooling or heating device designed to use a chlorofluorocarbon (CFC) or hydrochlorofluorocarbon (HCFC) compound as a working fluid, unless such fluid has been approved for sale and such use by the Administrator. The Permittee shall keep a record of all paperwork relevant to the applicable requirements of 40 CFR 82, Subpart F onsite. [40 CFR 82 & PCC 17.16.710]

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PART B: SPECIFIC PROVISIONS

[References are to Title 17 of the Pima County Code unless otherwise noted]

I. APPLICABILITY

Affected Emission Source or Process: **Class II; True Minor Source for all pollutants.**

This source is a new source and is required to operate and maintain all air pollution control equipment and dust control plans as part of its operational design. The limits on the Air Pollution Control (APC) equipment are federally enforceable limitations. The affected emission sources are grouped by process type in each section. A table precedes each section's conditions outlining the equipment, processes or APC that are subject to the conditions contained in the respective section.

All equipment, APC and facilities located underground are not subject to any air quality permitting requirements. As such they are exempted from any provisions of any New Source Performance Standard (NSPS), National Emission Standards for Hazardous Air Pollutants (NESHAP) Part 61, National Emission Standards for Hazardous Air Pollutants for Source Categories (MACTs) Part 63 or Pima County Code (PCC).

For a more complete description of the resulting conditions and limitations, please refer to the technical support document, the application and updates submitted for the permit.

DRAFT PERMIT

Part B

Section 1

Coarse Ore Storage & SAG Mill Crushing System

The conditions in this Section apply to the processes and units in the Emission Groups identified in the table below.

Emission Group	Process/Unit Description	Emission Unit ID	Maximum Capacity
A	Conveyor to Surface (NSPS)	100-CV-02	54"
	Crushed Ore Bin Feed/ Tripper Conveyor(NSPS)	100-CV-03	36"
	Reclaim Tunnel Conveyor (NSPS)	100-CV-05	36"
	SAG Mill Feed Conveyor (NSPS)	200-CV-01	36"
	SAG Mill Crushing System	200-SG-01	3,000 STPD
B	<u>Air Pollution Control Devices</u> Dust Suppression System (Non-NSPS)		N/A
C	<u>Materials Handling</u> Crushed Ore Storage Bins (NSPS)	100-BK-01, 02 & 03	4,000 ST
	Apron Feeders with Hoppers(NSPS)	100-FE-01, 02 & 03	36"
	SAG Mill Discharge Trommel	200-CV-01	36"
	SAG Mill Trash Bin	200-BN-01	2m ³

I. Emission Limitations and Standards

[PCC 17.12.185.A.2]

A. Emission Group A

[Federally Enforceable & Material Permit Conditions]

1. On and after the sixtieth day after achieving the maximum production rate at which Emission Group A will be operated, but not later than 180 days after initial startup, the Permittee shall not cause to be discharged into the atmosphere any process fugitive emissions that exhibit greater than 10 percent opacity. [40 CFR 60.382(b)]
2. At all times, including periods of startup, shutdown, and malfunction, the Permittee shall, to the extent practicable, maintain and operate any affected facility in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Control Officer which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source. [40 CFR 60.11(d)]

B. Emission Group B

1. The Permittee shall install, maintain and operate a Dust Suppression System at all times that any equipment in Emission Group A or C are operating. [PCC 17.12.190.B.2]
[Federally Enforceable & Material Permit Condition]

2. The Permittee shall not cause, or permit the opacity of an emission from any equipment or process controlled by the Dust Suppression System identified in this Section to exceed 10% for NSPS affected equipment or processes. [PCC 17.12.190.B.2]

[Federally Enforceable & Material Permit Condition]

3. The Permittee shall not cause, or permit the opacity of an emission from any Non-NSPS equipment or process controlled by the Dust Suppression System identified in this Section to exceed 20 percent as measured in accordance with the Arizona Testing Manual, Reference Method 9. [PCC 17.16.050.B]

C. Emission Group C

1. Opacity Limitation

- a. 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 NSPS facility (or process) any process fugitive emissions that exhibit greater than 10 percent opacity. Process fugitive emissions are emissions from an affected facility that are not collected by a capture system. [40 CFR 60.382(b)]

[Federally Enforceable & Material Permit Condition]

- b. The Permittee shall not cause, or permit the opacity of an emission from any Non-NSPS non-point source as measured in accordance with the Arizona Testing Manual, Reference Method 9, to exceed 20 percent. [PCC 17.16.050.B]

2. Material Handling

The Permittee shall not cause, suffer, allow or permit crushing, screening, handling, transporting or conveying of materials or other operations likely to result in significant amounts of airborne dust without taking reasonable precautions, such as the use of spray bars, wetting agents, dust suppressants, covering the load, and hoods to prevent excessive amounts of particulate matter from becoming airborne. [PCC 17.16.100.A]

3. Ore Storage

- a. The Permittee shall not cause, suffer, allow or permit operations or activities likely to result in excessive amounts of airborne dust without taking reasonable precautions to prevent excessive amounts of particulate matter from becoming airborne. [PCC 17.16.050.A]

- b. The Permittee shall not cause, suffer, allow, or permit diffusion of visible emissions, including fugitive dust, beyond the property boundary line within which the emissions become airborne, without taking reasonably necessary and feasible precautions to control generation of airborne particulate matter. The Permittee may be required to cease temporarily the activity or operation which is causing or contributing to the emissions until reasonably necessary and feasible precautions are taken. [PCC 17.16.050.D]

- i. The Permittee may request to have the actions constituting reasonably necessary and feasible precautions approved and included as permit conditions. Compliance with such permit conditions shall be considered compliance with this provision. [PCC 17.16.050.D.1]

- ii. This subsection (I.C.3.b) shall not apply when wind speeds exceed twenty-five (25) miles per hour (using the Beaufort Scale of Wind-Speed Equivalents, or as recorded by the National Weather Service). This exception does not apply if control measures have not been taken or were not commensurate with the size or scope of the emission source. [PCC 17.16.050.D.2]
- iii. This Condition shall not apply to the generation of airborne particulate matter from undisturbed land. [PCC 17.16.050.D.3]
- c. The Permittee shall not cause, suffer, allow, or permit organic or inorganic dust producing material to be stacked, piled or otherwise stored without taking reasonable precautions such as chemical stabilization, wetting, or covering to prevent excessive amounts of particulate matter from becoming airborne. [PCC 17.16.110.A]
- d. Stacking and reclaiming machinery utilized at storage piles shall be operated at all times with a minimum fall of material and in such manner, or with the use of spray bars and wetting agents, as to minimize and control to ensure compliance with I.C.1.b & I.C.3 of this Section. [PCC 17.16.110.B]

II. Monitoring Requirements

[PCC 17.12.185.A.3]

A. Emission Group A

[Federally Enforceable Conditions]

- 1. The Permittee shall demonstrate compliance with the opacity limitation in I.A.1 of this Section by daily monitoring the emissions while operating equipment/ processes in Emission Group A. [PCC 17.12.185.A.3.c]
- 2. If the observer sees emissions from Emission Group A, that on an instantaneous basis, appear to exceed 10 percent opacity, then the Permittee shall take a six-minute Method 9 observation of the emissions. If the emissions are 10 percent opacity or more this shall be recorded and reported as an excess emission and permit deviation. [PCC 17.12.185.A.3.c]
- 3. If during the visual survey, the Permittee does not see any emissions from Emission Group A that, on an instantaneous basis, appear to exceed 10 percent opacity, then the Permittee shall keep a record of the name of the observer, the date on which the visual survey was made, the location, and the results of the visual survey and whether the equipment was operating. [PCC 17.12.185.A.3.c]
- 4. If the six-minute opacity of the plume is less than the 20 percent, then the observer shall make a record of the following: [PCC 17.12.185.A.3.c]
 - a. Location, date, and time of the observation; and
 - b. The results of the Method 9 observation.
- 5. If the six-minute opacity of the emissions exceeds 10 percent then the Permittee shall investigate the cause of the exceedance and if necessary modify the operating and maintenance procedures of the process to reduce the opacity to below 10 percent. The Permittee shall record the results and conclusions of this investigation. [PCC 17.12.185.A.3.c]

B. Emission Group B

[Federally Enforceable Conditions]

The Permittee shall maintain the Dust Suppression System according to an Operations and Maintenance Plan approved by the Control Officer.

C. Emission Group C

[Federally Enforceable Conditions]

1. Opacity Limitation & Materials Handling

The Permittee shall demonstrate compliance with the opacity limitations in I.C.1 and 2 of this Section by monitoring the fugitive and process fugitive emissions from the affected facilities biweekly (every two weeks) when equipment and/or processes are in normal operating mode.

[PCC 17.12.185.A.3.c]

2. Ore Storage & Materials Handling

a. If the Permittee sees any fugitive or process fugitive emissions from an NSPS affected facility that, on an instantaneous basis, appear to exceed 10 percent opacity, then the Permittee shall take a six-minute Method 9 observation of the emissions. If the emissions are 10 percent opacity or more this shall be recorded and reported as an excess emission and permit deviation.

[PCC 17.12.185.A.3.c]

b. If during the visual survey, the Permittee does not see any fugitive or process fugitive emissions from an NSPS affected facility that, on an instantaneous basis, appear to exceed 10 percent opacity, then the Permittee shall keep a record of the name of the observer, the date and time that the visual survey was made, the location, the results of the visual survey and whether the observed operation was operating.

[PCC 17.12.185.A.3.c]

3. If the six-minute opacity observation of any NSPS affected facility is less than 10 percent, then the Permittee shall make a record of the following:

[PCC 17.12.185.A.3.c]

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

b. the results of the Method 9 observation.

4. If the six-minute opacity observation exceeds 120 percent then the Permittee shall investigate the cause of the exceedance and if necessary modify the operating and maintenance procedures of the process to reduce the opacity to below the opacity standard. The Permittee shall record the results and conclusions of this investigation.

[PCC 17.12.185.A.3.c]

III. Recordkeeping Requirements

[PCC 17.12.185.A.4]

A. Emission Group A

[Federally Enforceable Condition]

The Permittee shall follow the recordkeeping requirements outlined in the Monitoring Requirements for Emission Group A in II.A.2 – 5 of this Section.

B. Emission Group B

[Federally Enforceable Condition]

The Permittee shall maintain all records as required and approved in the Operations and Maintenance Plan for the Dust Suppression System.

C. Emission Group C

The Permittee shall follow the recordkeeping requirements outlined in the Monitoring Requirements for Emission Group C in II.C.2 – 4 of this Section.

IV. Reporting Requirements

[PCC 17.12.185.A.5]

A. Emission Group A **[Federally Enforceable Condition]**

1. The Permittee shall submit initial performance test results as required in V.A.1 of this Section.

B. Emission Group B **[Federally Enforceable Condition]**

There are no initial performance test results required to be submitted for this Emission Group however, the Permittee shall submit an Operations and Maintenance Plan for the Dust Suppression System. The plan shall contain a procedure(s) for initially verifying that the system is in good working order. The plan shall also contain procedures for periodic verification that the Dust Suppression System is in good working order.

C. Emission Group C

The Permittee shall follow the general reporting requirements in IV.D of this Section.

D. All Emission Groups

1. The Permittee shall promptly report and submit reports of excess emissions and permit deviations as described in XI.A & B of Part A.

2. Emissions Inventory Reporting [PCC 17.12.320]

When requested, the Permittee shall complete and submit to the Control Officer an annual emissions inventory questionnaire pursuant to 17.12.320 of the Pima County Code. (See VI of Part A of this permit).

V. Testing Requirements

[PCC 17.12.185.A.3]

For purposes of demonstrating compliance, these test methods shall be used, provided that for the purpose of establishing whether or not the facility has violated or is in violation of any provision of this permit, nothing in this permit shall preclude the use, including the exclusive use, of any credible evidence or information relevant to whether a facility would have been in compliance with applicable federal requirements if the appropriate performance or compliance procedures or methods had been performed. [PCC 17.20.010]

[Locally Enforceable Condition]

A. Emission Group A **[Federally Enforceable Conditions]**

1. In conducting the performance tests required in 40 CFR 60.8, the Permittee shall use as reference methods and procedures the test methods in Appendix A of 40 CFR 60 or other methods and procedures as specified in this Section, except as provided in 40 CFR 60.8(b). [40 CFR 60.386]

2. The Permittee shall conduct a performance test and submit to the Control Officer a written report of the results of the test as specified in 40 CFR 60.8(a). [40 CFR 60.385(a)]

3. 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)]

DRAFT PERMIT

Part B

Section 2

Copper Concentrate Thickening & Filtration

The conditions in this Section apply to the processes and units in the Emission Groups identified in the table below.

Emission Group	Process/Unit Description	Emission Unit ID
	<u>Copper Concentrate Material Handling (NSPS)</u>	
	Copper Dewatering Filter Press (Membrane Style)	440-FL-01
	Copper Concentrate Storage Bin	440-BK-01
	Copper Concentrate Truck Station	

I. Emission Limitations and Standards

[PCC 17.12.185.A.2]

A. Copper Concentrate Material Handling

[Federally Enforceable Conditions]

1. At all times, including periods of startup, shutdown, and malfunction, the Permittee shall, to the extent practicable, maintain and operate any NSPS affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Control Officer which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source. [40 CFR 60.11(d)]

[Federally Enforceable & Material Permit Condition]

2. The Permittee shall limit crushed ore processing throughput to the Concentrator Plant Process Equipment to 3,000 standard tons per day (STPD). The Permittee shall install and operate a belt scale at all times to record throughput records. [PCC 17.12.190.B]

[Federally Enforceable & Material Permit Condition]

3. **Opacity Limitation**

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 NSPS facility any process fugitive emissions that exhibit greater than 10 percent opacity. Process fugitive emissions are emissions from an affected facility that are not collected by a capture system. [40 CFR 60.382(b)]

[Federally Enforceable & Material Permit Condition]

4. **Material Handling**

The Permittee shall not cause, suffer, allow or permit crushing, screening, handling, transporting or conveying of materials or other operations likely to result in significant amounts of airborne dust without taking reasonable precautions, such as the use of spray bars, wetting agents, dust

suppressants, covering the load, and hoods to prevent excessive amounts of particulate matter from becoming airborne. [PCC 17.16.100.A]

5. Ore Storage

- a. The Permittee shall not cause, suffer, allow or permit operations or activities likely to result in excessive amounts of airborne dust without taking reasonable precautions to prevent excessive amounts of particulate matter from becoming airborne. [PCC 17.16.050.A]
- b. The Permittee shall not cause, suffer, allow, or permit diffusion of visible emissions, including fugitive dust, beyond the property boundary line within which the emissions become airborne, without taking reasonably necessary and feasible precautions to control generation of airborne particulate matter. The Permittee may be required to cease temporarily the activity or operation which is causing or contributing to the emissions until reasonably necessary and feasible precautions are taken. [PCC 17.16.050.D]
- i. The Permittee may request to have the actions constituting reasonably necessary and feasible precautions approved and included as permit conditions. Compliance with such permit conditions shall be considered compliance with this provision. [PCC 17.16.050.D.1]
- ii. This subsection (I.A.5.b) shall not apply when wind speeds exceed twenty-five (25) miles per hour (using the Beaufort Scale of Wind-Speed Equivalents, or as recorded by the National Weather Service). This exception does not apply if control measures have not been taken or were not commensurate with the size or scope of the emission source. [PCC 17.16.050.D.2]
- iii. This Condition shall not apply to the generation of airborne particulate matter from undisturbed land. [PCC 17.16.050.D.3]
- c. The Permittee shall not cause, suffer, allow, or permit organic or inorganic dust producing material to be stacked, piled or otherwise stored without taking reasonable precautions such as chemical stabilization, wetting, or covering to prevent excessive amounts of particulate matter from becoming airborne. [PCC 17.16.110.A]
- d. Stacking and reclaiming machinery utilized at storage piles shall be operated at all times with a minimum fall of material and in such manner, or with the use of spray bars and wetting agents, as to minimize and control to ensure compliance with I.A.3 & I.A.5 of this Section. [PCC 17.16.110.B]

II. Monitoring Requirements

[PCC 17.12.185.A.3]

A. Copper Concentrate Material Handling

1. When operated as a wet process, the Permittee is not required to monitor emissions from the Filter Press (440-FI-01). The Permittee shall monitor emissions from these processes if operated without sufficient moisture to categorize operations as clean, wet ore and/ or wet processes.
2. The Permittee shall demonstrate compliance with the opacity limitations in I.A.3 of this Section by monitoring the fugitive emissions from the Copper Concentrate Thickener and Filtration Circuits (CCTFCs) biweekly (every two weeks) during all normal thickener and filtering operations.

[PCC 17.12.185.A.3.c]

3. If the Permittee sees any fugitive emissions from the CCTFCs that, on an instantaneous basis, appear to exceed 10 percent opacity, then the Permittee shall take a six-minute Method 9 observation of the emissions. If the emissions are 10 percent opacity or more this shall be recorded and reported as an excess emission and permit deviation. [PCC 17.12.185.A.3.c]
4. If during the visual survey, the Permittee does not see any fugitive emissions from the CCTFCs that, on an instantaneous basis, appear to exceed 10 percent opacity, then the Permittee shall keep a record of the name of the observer, the date and time that the visual survey was made, the location, and the results of the visual survey. [PCC 17.12.185.A.3.c]
5. If the six-minute opacity observation of any NSPS affected facility is less than 10 percent, then the Permittee shall make a record of the following: [PCC 17.12.185.A.3.c]
 - a. location, date, and time of the observation; and
 - b. the results of the Method 9 observation.
6. If the six-minute opacity observation exceeds 10 percent then the Permittee shall investigate the cause of the exceedance and if necessary modify the operating and maintenance procedures of the CCTFCs and surrounding processes to reduce the opacity to below the opacity standard. The Permittee shall record the results and conclusions of this investigation. [PCC 17.12.185.A.3.c]

III. Recordkeeping Requirements

[PCC 17.12.185.A.4]

A. Copper Concentrate Material Handling

[Federally Enforceable Conditions]

1. The Permittee shall follow the recordkeeping described in the Monitoring Requirements for Copper Concentrate Material Handling in II.A.3 – 6 of this Section.
2. The Permittee shall use the belt scale to record the monthly crushed ore processed through the Concentrator Plant Process Equipment and recalculate a rolling twelve (12) month total within 14 calendar days of the end of the month.

IV. Reporting Requirements

[PCC 17.12.185.A.5]

A. All Emission Groups

1. The Permittee shall promptly report and submit reports of excess emissions, throughput exceedances and permit deviations as described in XI.A & B of Part A.
2. Emissions Inventory Reporting [PCC 17.12.320]

The Permittee shall complete and submit to the Control Officer, when requested, an annual emissions inventory questionnaire pursuant to PCC 17.12.320 of the Pima County Code. (See VI of Part A of this permit).

V. Testing Requirements

[PCC 17.12.185.A.3]

For purposes of demonstrating compliance, these test methods shall be used, provided that for the purpose of establishing whether or not the facility has violated or is in violation of any provision of this permit, nothing

in this permit shall preclude the use, including the exclusive use, of any credible evidence or information relevant to whether a facility would have been in compliance with applicable federal requirements if the appropriate performance or compliance procedures or methods had been performed. [PCC 17.20.010]

[Locally Enforceable Condition]

A Copper Concentrate Material Handling

[Federally Enforceable Conditions]

1. In conducting the performance tests required in 40 CFR 60.8, the Permittee shall use as reference methods and procedures the test methods in Appendix A of 40 CFR 60 or other methods and procedures as specified in this Section, except as provided in 40 CFR 60.8(b). [40 CFR 60.386]
2. The Permittee shall conduct a performance test and submit to the Control Officer a written report of the results of the test as specified in 40 CFR 60.8(a). [40 CFR 60.385(a)]

DRAFT PERMIT

Part B

Section 3

Hydrated Lime & Reagent Distribution Systems

Emission Group	Process/Unit Description	Products/ Equipment – ID/ Emission Number
A	Hydrated Lime System (900-MS-01) (Including Griffin Fabric Filter System)	Storage Warehouse Bulk Bag Unloader – 900-BU-01 Hydrated Lime Screw Conveyor – 900-CV-01 Mix Tank – 900-TK-01 Other ancillary equipment
B	Reagent Distribution Systems (Includes Bag Breaker & Silo Fabric Filter Vent System(s))	<u>Reagents</u> Potassium Amyl Xanthate (PAX) Sodium Isopropyl Xanthate (SIPX) Sodium Hydrosulfide (NaHS) Flocculant Reagent Products

I. Emission Limitations and Standards

[PCC 17.12.185.A.2]

A. Emission Group A & B

1. The Permittee shall not cause or permit the emission of particulate matter discharged into the atmosphere at rates greater than the following: [PCC 17.16.430.A]

- a. For process sources having a process weight rate of sixty thousand pounds per hour (thirty tons per hour) or less, the maximum allowable emissions shall be determined by the following equation:

$$E = 3.59P^{0.62}$$

where:

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

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

- b. For process weight rate greater than sixty thousand pounds per hour (thirty tons per hour), the maximum allowable emissions shall be determined by the following equation:

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

where "E" and "P" are defined as indicated in I.A.1.a of this Section.

- c. For purposes of I.A.1.a & b of this Section, the total process weight from all similar units employing a similar type process shall be used in determining the maximum allowable emission of particulate matter. [PCC 17.16.430.B]

- d. The actual values shall be calculated from the applicable equations and rounded off to two decimal places. [PCC 17.16.430.C]
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 are discharged to adjoining property, the control officer may require the installation of abatement equipment or the alteration of such stack, vent or other outlet by the owner or operator thereof to a degree that will adequately dilute, reduce or eliminate the discharge of air pollution to adjoining property. [PCC 17.16.430.G]
3. The Permittee shall not cause, or permit the opacity of an emission from any non-point source as measured in accordance with the Arizona Testing Manual, Reference Method 9, to exceed 20 percent. [PCC 17.16.050.B]
4. Material Handling
- The Permittee shall not cause, suffer, allow or permit handling, transporting or conveying of materials or other operations in Emission Group A & B likely to result in significant amounts of airborne dust without taking reasonable precautions, such as the use of spray bars, wetting agents, dust suppressants, covering the load, and hoods to prevent excessive amounts of particulate matter from becoming airborne. [PCC 17.16.100.A]
5. Hydrated Lime Storage (Emission Group A)
- a. The Permittee shall not cause, suffer, allow or permit operations or activities likely to result in excessive amounts of airborne dust without taking reasonable precautions to prevent excessive amounts of particulate matter from becoming airborne. [PCC 17.16.050.A]
- b. The Permittee shall not cause, suffer, allow, or permit diffusion of visible emissions, including fugitive dust, beyond the property boundary line within which the emissions become airborne, without taking reasonably necessary and feasible precautions to control generation of airborne particulate matter. The Permittee may be required to cease temporarily the activity or operation which is causing or contributing to the emissions until reasonably necessary and feasible precautions are taken. [PCC 17.16.050.D]
- i. The Permittee may request to have the actions constituting reasonably necessary and feasible precautions approved and included as permit conditions. Compliance with such permit conditions shall be considered compliance with this provision. [PCC 17.16.050.D.1]
- ii. This subsection (I.C.3.b) shall not apply when wind speeds exceed twenty-five (25) miles per hour (using the Beaufort Scale of Wind-Speed Equivalents, or as recorded by the National Weather Service). This exception does not apply if control measures have not been taken or were not commensurate with the size or scope of the emission source. [PCC 17.16.050.D.2]
6. The Permittee shall ensure that the Hydrated Lime & Reagent Distribution systems contain a fabric filter housing that achieves a 99% capture and collection efficiency for control of particulate matter. [PCC 17.12.190.B.2]

[Federally Enforceable & Material Permit Condition]

7. a. The Permittee shall limit Sodium Hydrosulfide (NaHS) throughput to the Concentrator Plant and Scavenger Flotation Cells to 219,000 lbs/ year. The Permittee shall use material usage records to record monthly throughput. [PCC 17.12.190.B]
[Federally Enforceable & Material Permit Condition]
- b. Alternatively, the Permittee may choose to limit Hydrogen Sulfide (H₂S) emissions from the Concentrator Plant and Scavenger Flotation Cells to 9.6 tons per year (tpy) by calculating monthly H₂S emissions. [PCC 17.12.190.B]
[Federally Enforceable & Material Permit Condition]
8. The Permittee shall operate and maintain all equipment identified in Emission Group A & B in accordance with manufacturer's specifications or operation which conform with good air pollution control practices. In addition, Emission Group A shall be operated at all times that Hydrated Lime is unloaded from the Lime Silo and Emission Group B shall be operated at all times that the Reagents listed are in use.
9. The Permittee shall submit for approval by the Control Officer, Manufacturer's maintenance procedures or Operation and Maintenance Plan(s) (O&M Plan) for the Hydrated Lime System and the Reagent Distribution System. These procedure(s)/ Plan(s) shall include maintenance of the fabric filter systems. The submittal shall be received by the Control Officer within 60 days of initial start-up.

II. Monitoring, Recordkeeping and Reporting Requirements

[PCC 17.12.185.A.3, A.4 & A.5]

A. Emission Group A & B

1. The Permittee shall demonstrate compliance with the opacity limitations in I.A.3 of this Section by monitoring the fugitive and process fugitive emissions from Emission Group A biweekly (every two weeks).
2. If the Permittee sees emissions that, on an instantaneous basis, appear to exceed 20 percent opacity, then the Permittee shall take a six-minute Method 9 observation of the emissions. If the emissions are 20 percent opacity or more this shall be recorded and reported as an excess emission and permit deviation.
3. If during the visual survey, the Permittee does not see any emissions from Emission Group A that, on an instantaneous basis, appear to exceed 20 percent opacity, then the Permittee shall keep a record of the name of the observer, the date on which the visual survey was made, the location, and the results of the visual survey.
4. If the six-minute opacity of the emissions is less than 20 percent, then 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.
5. If the six-minute opacity of the plume exceeds 20 percent then the Permittee shall investigate the cause of the exceedance and if necessary modify the operating and maintenance procedures of the process to reduce the opacity to below the opacity standard. The Permittee shall record the results and conclusions of this investigation.

6. The Permittee shall maintain a record of all control measures used to limit emissions from the Reagent Distribution System(s). [PCC 17.12.185.A.4]
7. a. The Permittee shall use material usage records to record the monthly NaHS processed through the Concentrator Plant and Scavenger Flotation Cells and recalculate a rolling twelve (12) month total within 14 calendar days of the end of the month. [PCC 17.12.185.A.4]
- b. Alternatively, the Permittee may calculate the monthly H₂S emissions from the Concentrator Plant and Scavenger Flotation Cells and recalculate a rolling twelve (12) month total within 14 calendar days of the end of the month. [PCC 17.12.185.A.4]
8. The Permittee shall maintain the Reagent Distribution System(s) by following the prescribed Manufacturer's maintenance procedures or approved written O & M Plan(s). The Permittee shall revise the plan in use as required to ensure that it is operating according to best management practices.
9. The Permittee shall promptly report and submit reports of excess emissions, throughput exceedances and permit deviations as described in XI.A & B of Part A. [PCC 17.12.185.A.5]
10. Emissions Inventory Reporting [PCC 17.12.320]

The Permittee shall complete and submit to the Control Officer, when requested, an annual emissions inventory questionnaire pursuant to PCC 17.12.320 of the Pima County Code. (See VI of Part A of this permit).

V. Testing Requirements

For purposes of demonstrating compliance, these test methods shall be used, provided that for the purpose of establishing whether or not the facility has violated or is in violation of any provision of this permit, nothing in this permit shall preclude the use, including the exclusive use, of any credible evidence or information relevant to whether a facility would have been in compliance with applicable federal requirements if the appropriate performance or compliance procedures or methods had been performed. [PCC 17.20.010]

A. Opacity

When required, the Permittee shall perform EPA Method 9 visible emissions observations on the facility operations to demonstrate compliance with the opacity standard. [PCC 17.20.010]

Part B

Section 4

Mining Operations

The conditions in this Section apply to the processes and units in the Emission Groups identified in the table below.

Emission Group	Process/Unit Description	Emission Point(s)
A	Dry Stack Mineral Tailings	Tailings
	Vehicles on Unpaved Surfaces Loading & Unloading of Ore and Waste Rock	Various
	All Other Fugitive Sources/ Processes	Various
	Demolition/ Renovation	Various

I. Emission Limitations and Standards **[Locally Enforceable Conditions]**

A. Upon approval by the Control Officer of the Dry Stack Tailings Management Plan (DSTMP) and the Fugitive Dust Management Plan (FDMP) required below, the Permittee shall implement the plans to control fugitive dust from mine operations. [PCC 17.12.185.A.2]

1. The Permittee shall submit the DSTMP & FDMP within 180 calendar days of permit issuance, for approval by the Control Officer. [PCC 17.12.185.A.2 & 17.12.185.A.4]

a. The DSTMP shall address the following operational requirements:

- i. Dry Stack Tailings dust control during normal non-berm building mine tailing operations;
- ii. Dry Stack Tailings dust control during berm building;

b. The FDMP shall address the following operational requirements:

- i. Dust Control for vehicles on unpaved surfaces;
- ii. Dust Control during all other fugitive emissions operations, (e.g. Drilling & Blasting, truck dumping).

B. Mineral Tailings

1. The Control Officer may require that the Permittee make changes to the Dust Management Plan should the Control Officer find that the plan fails to provide adequate air pollution control or that the air pollution control techniques are no longer effective in controlling fugitive emissions as identified in I.D of this Section. [PCC 17.12.185.A.2]

2. Should the Permittee determine that revisions to the approved Dust Management Plan are necessary; such revisions shall not become effective until the Permittee submits a description of the changes and a revised plan to the Control Officer for approval. The revised plan shall become effective upon review and approval by the Control Officer. [PCC 17.12.185.A.2]
3. The Permittee shall not 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, re-vegetation or such other measures as are approved by the Control Officer. [PCC 17.16.120.A]
4. The Permittee shall not cause, suffer, allow, or permit construction of mineral tailings piles without taking reasonable precautions (i.e. wetting, chemical stabilization, application of wet tailings or re-vegetation) to minimize and control to ensure compliance with I.D.1.c, I.D.1.d and I.D.2 of this Section. [PCC 17.16.120.B]

C. Vehicles on Unpaved Surfaces

1. The Permittee shall not construct a new unpaved service road or unpaved haul road unless dust will be suppressed after construction by intermittently watering, limiting access, or applying chemical dust suppressants to the road, in such a way that visible dust emissions caused by vehicular traffic on the road do not violate PCC 17.16.050 (I.D.1.c, I.D.1.d and I.D.2 of this Section). The surfacing of roadways with asbestos tailings is prohibited. [PCC 17.16.090.D & F]
2. The Permittee shall effectively control dust emissions from the transportation of materials by covering stock loads in open-bodied trucks, limiting vehicular speeds, or other equivalently effective controls. [PCC 17.16.100.C]

D. General Non-Point Fugitive Standards

1. The Permittee is responsible for controlling windblown dust, dust from haul roads, and dust emitted from land clearing, earthmoving, demolition, trenching, blasting, road construction, mining, and other activities, as applicable. [PCC 17.16.060.A]
- a. Until the area becomes permanently stabilized by paving, landscaping or otherwise, dust emissions shall be controlled by applying adequate amounts of water, chemical stabilizer, or other effective dust suppressant. [PCC 17.16.060.A.1]
- b. The Permittee shall not leave land in such a state that fugitive dust emissions (including windblown dust or dust caused by vehicular traffic on the area) would violate PCC 17.16.050 (I.D.1.c, I.D.1.d and I.D.2 of this Section). [PCC 17.16.060.A.2]
- c. The Permittee shall not cause, suffer, allow or permit operations or activities likely to result in excessive amounts of airborne dust without taking reasonable precautions to prevent excessive amounts of particulate matter from becoming airborne. [PCC 17.16.050]
- d. The opacity of an emission from any non-point source, as measured in accordance with EPA Reference Method 9, shall not exceed 20 percent. [PCC 17.16.050.B.1]
2. The Permittee shall not cause, suffer, allow, or permit diffusion of visible emissions, including fugitive dust, beyond the property boundary line within which the emissions become airborne, without taking reasonably necessary and feasible precautions to control generation of airborne

particulate matter. Sources may be required to cease temporarily the activity or operation which is causing or contributing to the emissions until reasonably necessary and feasible precautions are taken. [PCC 17.16.050.D]

- a. Sources required to obtain an air quality permit under ARS § 49-426, § 49-480 or Rule 17.12.470 may request to have the actions constituting reasonably necessary and feasible precautions approved and included as permit conditions. Compliance with such permit conditions shall be considered compliance with I.D.2 of this Section. [PCC 17.16.050.D.1]
 - b. I.D.1.c, I.D.1.d and I.D.2 of this Section shall not apply when wind speeds exceed twenty-five (25) miles per hour (using the Beaufort Scale of Wind-Speed Equivalents, or as recorded by the National Weather Service). This exception does not apply if control measures have not been taken or were not commensurate with the size or scope of the emission source. [PCC 17.16.050.D.2]
 - c. I.D.1.c, I.D.1.d and I.D.2 of this Section shall not apply to the generation of airborne particulate matter from undisturbed land. [PCC 17.16.050.D.3]
3. The Permittee shall not cause, suffer, allow, or permit organic or inorganic dust producing material to be stacked, piled or otherwise stored without taking reasonable precautions such as chemical stabilization, wetting, or covering to prevent excessive amounts of particulate matter from becoming airborne. [PCC 17.16.110.A]
 4. Stacking and reclaiming machinery utilized at storage piles shall be operated at all times with a minimum fall of material and in such manner, or with the use of spray bars and wetting agents, as to minimize and control to ensure compliance with I.C.1.c, I.C.1.d and I.C.2 of this Section. [PCC 17.16.110.B]

E. Demolition/ Renovation

The Permittee shall comply with all of the requirements of 40 CFR 61, Subpart M (National Emissions Standards for Hazardous Air Pollutants) - Asbestos. See also Part A XXI. [PCC 17.16.530.A.8]

II. Monitoring Requirements

[PCC 17.12.185.A.3]

[Locally Enforceable Conditions]

A. Mineral Tailings

1. The Permittee shall follow all the monitoring provisions identified in the approved DSTMP.
2. The Permittee shall review the DSTMP annually for its effectiveness in controlling fugitive emissions. The review shall be submitted to the Control Officer by January 31 of each year (covering the period January 1st through December 31st of the previous year). If review of the plan shows ineffectiveness in controlling emissions, (more than two violations per year) the Permittee shall submit a revised Plan for approval by April 1 following the annual review. The revised DSTMP plan shall show improved methods/ techniques for reducing emissions in order to minimize or prevent further violations. The annual review shall take into account past compliance issues, resolved/ unresolved including validated complaints reported to PDEQ and propose how those issues can be avoided in the future. Recommendations or stricter requirements will be prescribed by PDEQ should ORM's annual review show that changes are required but not proposed by ORM.

B. General Non-Point Fugitive Emissions (including Mineral Tailings)

To demonstrate compliance with the emission limitations and standards in I.D.1.d and I.D.2 of this Section, the Permittee shall:

1. Conduct regular visible emissions checks on each process/unit in this Section. The checks shall be no less than twice daily at or near berm building locations with construction equipment in actual normal operating mode on the berm and no more than weekly at all other non berm building locations and times). The checks shall be conducted from strategic locations to be identified and submitted to the Control Officer. The locations shall be identified as an attachment titled Fugitive Lookout Points.
2. For the purposes of this permit, a visible emissions check is verification that abnormal emissions are not present at each process/unit source of this Section. The frequency of 'regular' emissions checks shall be dependent on the fugitive dust generating process or activity, the existing and forecasted meteorological conditions and the tailing dam surface characteristics. If excessive amounts of particulate matter are present and/or foreseeable or there is a lack of dust suppressant material on the tailing dam surfaces or preparation of tailing dam surface for ground works is on-going), the Permittee shall increase the frequency of visible emissions checks and application of dust controls that are commensurate with the size and scope of the emission(s) to assure and demonstrate compliance with the emission limitations in I.D.1 and I.D.2. The results of these visible emissions checks shall be used to determine the need for additional dust control measures.
3. The Permittee shall physically inspect tailings which are dry, undergoing berm building, or are drying frequently for easily eroded areas, loose soils, weakened areas of the surface crust of the tailings dam, and or cracks in the crust. Results of the inspection(s) including but not limited to any control measures used or corrective actions taken shall be noted on a schematic of the tailings dam (need not be to scale) with approximate locations of physical points and other distinguishing features, such as dividers, etc.
4. If during any tailings inspection, the Permittee sees visible emissions that, on an instantaneous basis, appear to exceed 20% opacity, then the Permittee shall, if practicable, take six-minute Method 9 observation of the emission source. If the emissions are observed to be more than the opacity limitation and standards within this Section, then this occurrence shall be recorded and reported as an excess emission and permit deviation.
5. If the observer sees visible emissions from any process/unit sources identified in this Section, that, on an instantaneous basis, appear to exceed 20% opacity, then the Permittee shall, if practicable, take six-minute Method 9 observation of the emission source. If the emissions are more than the opacity limitation and standards within this Section, then this occurrence shall be recorded and reported as an excess emission and permit deviation.
6. When required the Permittee shall perform visible emission observations in accordance with EPA Method 9, Appendix A in 40 CFR 60, to demonstrate compliance with the visibility limiting standards. [PCC 17.16.040.A.1]

III. Recordkeeping Requirement

[PCC 17.12.185.A.4]

[Locally Enforceable Conditions]

1. The Permittee shall record the results of the required monitoring as detailed in the approved DSTMP & FDMP.
2. The Permittee shall maintain a record of all tailing inspections, control measures used and corrective actions taken to demonstrate compliance with the emission limitations in I.D.1 and I.D.2 of this Section. [PCC 17.12.185.A.4]
3. The Permittee shall record the date and time of all visible emission checks, the name of the person conducting the check, the results of the check and the type of corrective action taken (if required). All records shall be maintained for five years.
4. A copy of watering schedules, if developed and implemented to control the generation of airborne particulate matter shall be maintained at the facility on a per shift basis. All records shall be maintained for five years.

IV. Reporting Requirements

- A. The Permittee shall promptly report and submit reports of excess emissions and permit deviations as described in XI.A & B of Part B.
- B. Emissions Inventory Reporting [PCC 17.12.320]

The Permittee shall complete and submit to the Control Officer, when requested, an annual emissions inventory questionnaire pursuant to PCC 17.12.320 of the Pima County Code. (See VI of Part A of this permit).

V. Testing Requirements

For purposes of demonstrating compliance, these test methods shall be used, provided that for the purpose of establishing whether or not the facility has violated or is in violation of any provision of this permit, nothing in this permit shall preclude the use, including the exclusive use, of any credible evidence or information relevant to whether a facility would have been in compliance with applicable federal requirements if the appropriate performance or compliance procedures or methods had been performed. [PCC 17.20.010]

- A. Opacity

When required, the Permittee shall perform EPA Method 9 visible emissions observations on the facility operations to demonstrate compliance with the opacity standard. [PCC 17.20.010]

- B. Alternative Test Method

The Permittee may submit an alternate and equivalent test method(s) that is listed in 40 CFR Subpart 60, Appendix A, to the Control Officer in a test plan, for approval by the Control Officer. [PCC 17.12.045.D]

Part B

Section 5

Combustion Processes

The conditions in this Section apply to the processes and units in the Emission Groups identified in the table below.

Emission Group	Process/Unit Description	Equipment ID	Unit ID	NSPS Engine Designation	Compliance Date for Federal Regulations*
A	Emergency Standby Generator	170-GE-01	FB02	Emergency	Upon Start-up
	Emergency Fire Pump	800-PP-07	FB07	Emergency Water Pump	Upon Start-up

I. Operational, Emission Limitations and Standards

[PCC 17.12.185.A.2]

A. Emission Group A

[Federally Enforceable Conditions]

1. Certified Emission Limits (CI ICE)

[40 CFR 60.4203, 40 CFR 60.4202(a) & 40 CFR 4205(b)]

The following standards apply to the emergency stationary compression ignition engines (CI ICE) that are not certified National Fire Protection Association (NFPA) fire pump engines.

- a. New CI ICE in Emission Group A identified as emergency engines shall be certified by the manufacturer at or below the applicable emission standards and shall continue to meet them for the useful life of the engine.
- b. Applicable emission standards and the useful life of the engine are identified below.

Maximum Engine Power	Model Year	NMHC+ NO_x (g/hphr)	CO (g/hphr)	PM (g/hphr)
HP ≥750	≥2007	4.8	2.6	0.15
Useful life = 8,000 hours or 10 years, whichever comes first				

- c. The Permittee must operate and maintain applicable units according to the manufacturer's written instructions or procedures developed by the Permittee that are approved by the engine manufacturer, over the entire life of the engine. [40 CFR 60.4206]

2. Certified Emission Limits (Fire Pump CI ICE)

The following standards apply to the stationary compression ignition engines that are certified as National Fire Protection Association (NFPA) fire pump engines.

- a. New CI ICE in Emission Group A identified as emergency water pump engines must be certified by the manufacturer at or below the applicable emission standards and shall continue to meet them for the useful life of the engine. Applicable emission standards and the useful life of the engine are identified below. [40 CFR 60.4203, 4205(c), & Table 4 of Subpart IIII]

Maximum Engine Power	Model Year	NMHC+ NO _x (g/hphr)	CO (g/hphr)	PM (g/hphr)
100 ≤ HP ≤ 175	≥2011	3.0		0.22
Useful life = 8,000 hours or 10 years, whichever comes first				

3. Opacity Standards

- a. Except for constant-speed engines, opacity shall not exceed:
[40 CFR 60.4202(a)(1) & (a)(2), 40 CFR 89.113 & 40 CFR 1039.105]
- i. 20 percent during the acceleration mode;
 - ii. 15 percent during the lugging mode; and
 - iii. 50 percent during the peaks in either the acceleration or lugging modes.
- b. The Permittee shall not cause or permit the effluent from a single emission point or multiple emission point to have an average optical density equal to or greater than 20 percent. Cold diesel engines are exempt for the first 10 minutes. [PCC 17.16.040]
- c. The Permittee shall not cause or permit the effluent from a single emission point, multiple emission point, or a fugitive emissions source to have an average optical density equal to or greater than 60 percent when a cold diesel engine is started or when a diesel engine is accelerated under load as measured in accordance with EPA Method 9. [PCC 17.16.040]

4. Fuel Requirements

[40 CFR 60.4207]

[Material Permit Condition]

The Permittee must use diesel fuel that meets the following requirements on a per-gallon basis:

[40 CFR 60.4207(a) & 80.510(a)]

- a. Sulfur content: 15 parts per million (ppm) maximum;
- b. Cetane index or aromatic content, as follows:
 - i. A minimum cetane index of 40; or
 - ii. A maximum aromatic content of 35 volume percent.

5. Emergency Designation

[40 CFR 60.4211(e)]

Emergency stationary ICE may be operated for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by Federal, State, or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours per year. There is no time limit on the use of emergency stationary ICE in emergency situations. The Permittee may petition the Control Officer for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the Permittee maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency ICE beyond 100 hours per year. Any operation other than emergency operation, and maintenance and testing as permitted in this Attachment, is prohibited.

6. Compliance [40 CFR 60.4211]
- a. The Permittee must operate and maintain the applicable stationary CI ICE according to the manufacturer's written instructions or procedures developed by the Permittee that are approved by the engine manufacturer. In addition, the Permittee may only change those settings that are permitted by the manufacturer. [40 CFR 60.4211(a)]
 - b. The Permittee shall demonstrate compliance with the emission standards specified Emission Group A by purchasing an engine certified to those standards. The engine must be installed and configured according to the manufacturer's specifications. [40 CFR 60.4211(c)]

II. Monitoring Requirements

[PCC 17.12.185.A.3]

A. Emission Group A

[40 CFR 60.4209(a)]

[Federally Enforceable Conditions]

- 1. The Permittee must install a non-resettable hour meter on each applicable stationary CI ICE prior to startup of each engine. [PCC 17.12.185.A.3.d]
- 2. Opacity [40 CFR 89.113(b)]
 - a. Opacity levels in I.A.2 of this Section are to be measured and calculated as set forth in 40 CFR part 86, subpart I. Notwithstanding the provisions of 40 CFR part 86, subpart I, two-cylinder nonroad engines may be tested using an exhaust muffler that is representative of exhaust mufflers used with the engines in use.
 - b. The following engines are exempt from the requirements of II.A.2.a above of this Section. [40 CFR 89.113 (c)(1) & (3)]
 - i. Single-cylinder engines;
 - ii. Constant-speed engines.
 - c. The Permittee shall conduct a visible emissions check on the exhaust stack of each generator at least quarterly while the generator is operating. For the purposes of this permit, a visible emission check is verification that abnormal emissions are not present at the generator stack. The Permittee shall record the date and time of the check, the name of the person conducting the check, the results of the check, and the type of corrective action taken (if required). All records shall be maintained for five years.

III. Recordkeeping Requirements

[PCC 17.12.185.A.4]

A. Emission Group A

[Federally Enforceable Conditions]

- 1. Hourly Operational Records [40 CFR 60.4214(b)]

If the engine(s) does not meet the standards for a non-emergency unit for the same model year and maximum horsepower, the Permittee shall keep records of the operation of the engine in emergency and non-emergency service that are recorded through the non-resettable hour meter. The Permittee shall also record the time of operation of the engine and the reason the engine was in operation during that time. All records shall be maintained for five years

2. Diesel Fuel Recordkeeping

The Permittee shall maintain records that verify compliance with the diesel fuel requirements in I.A.4 of this Section.

3. Opacity

The Permittee shall keep all records generated to show compliance with the opacity level measurement requirements of II.A.2 of this Section.

4. All records required by, or generated to verify compliance with this attachment shall be maintained for five years.

IV. Reporting Requirements

The Permittee shall promptly report and submit reports of excess emissions and permit deviations as described in XI.A & B of Part B.

V. Testing Requirements

[40 CFR 60.4212 & PCC 17.12.185.A.3.a]

Should the Permittee elect to or be required to conduct performance testing to demonstrate compliance with the applicable standards of this Attachment, the Permittee shall do so in accordance with 40 CFR 60.4212.

VI. Additional Requirements

[40 CFR 60.4218 & 60.4214(b)]

The General Provisions of 40 CFR 60.1 through 19 apply to applicable sources as indicated in Table 8 of 40 CFR Subpart IIII except that the Permittee is not required to submit an initial notification.

Part B

Section 6

Storage Tanks

The conditions in this Section apply to the storage tanks identified below.

Tank Description	Product Stored	Unit ID	Maximum Capacity
Fuel Tank	Gasoline	800-TK-02	10,000 gallons
Fuel Storage	Diesel	800-TK-01	10,000 gallons

I. Emission Limitations and Standards

[PCC 17.12.185.A.2]

The Permittee shall only store products in the respective tanks that are similar in vapor pressure.

A. Gasoline Storage Tank

1. The Permittee shall not allow gasoline to be handled in a manner that would result in vapor releases to the atmosphere for extended periods of time. Measures to be taken include, but are not limited to, the following: [40 CFR 63.11116(a)]

[Federally Enforceable & Material Permit Condition]

- 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. Portable gasoline containers that meet the requirement of 40 CFR 59, subpart F, are considered acceptable for compliance; [40 CFR 63.11116(d)]
 - d. Minimize gasoline sent to open waste collection systems that collect and transport gasoline to reclamation and recycling devices, such as oil/waste separators.
2. The Permittee shall equip the gasoline storage tank with a submerged filling device or acceptable equivalent, for the control of hydrocarbon emissions. [PCC 17.16.230.B]
 3. Portable gasoline tanks, filled from a fixed storage tank at a GDF and used to dispense into on-site motor vehicles or other gasoline-fueled engines within the area source, are subject to II.B.1 of the Specific Conditions. [40 CFR 63.11111(j)]

[Federally Enforceable & Material Permit Condition]

B. Diesel Storage Tank

1. The Permittee shall not emit gaseous or odorous materials from the diesel storage tanks in such quantities or concentrations as to cause air pollution. [PCC 17.16.430.D]
2. Materials including solvents or other volatile compounds, paints, acids, alkalis, pesticides, fertilizers and manure 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 equipment shall be mandatory. [PCC 17.16.430.F]

3. Where a stack, vent or other outlet is at such a level that fumes, gas mist, odor, smoke, vapor or any combination thereof constituting air pollution is discharged to adjoining property, the Director may require the installation of abatement equipment or the alteration of such stack, vent or other outlet by the Permittee to a degree that will adequately dilute, reduce or eliminate the discharge of air pollution to adjoining property. [PCC 17.16.430.G]

II. Monitoring & Recordkeeping

The Permittee shall keep a record of the tank ID and product stored. If the tank's product is replaced with one not similar in vapor pressure, the Permittee shall notify the Control Officer and submit a permit revision and recalculate emissions if necessary.

A. Gasoline Storage Tank

1. The Permittee shall provide proof of throughput upon request by the Control Officer. [40 CFR 63.11111(e)]
[Federally Enforceable Condition]
2. Yearly throughput shall be a 365-day rolling total, calculated by summing the volume of gasoline loaded into, or dispensed from, all gasoline storage tanks at each GDF during the current day, plus the total volume of gasoline loaded into, or dispensed from, all gasoline storage tanks at each GDF during the previous 364 days. Monthly throughput shall be calculated using the yearly throughput and dividing that sum by 12. [40 CFR 63.11132]
[Federally Enforceable & Material Permit Condition]
3. The Permittee shall annually inspect the gasoline storage tanks' submerged fill devices. The inspections shall be used to determine whether all of the submerged fill devices are in good working order, according to good modern practices and any available industry practices or recommendations. [PCC 17.12.185.A.3.c]
[Material Permit Condition]
4. Recordkeeping to document throughput must begin upon startup for a new or reconstructed source and should date back to January 10, 2008 for existing sources. These records shall be kept for a period of five (5) years. [40 CFR 63.11111(e)]
5. The Permittee shall record the results of inspections in II.A.3 in a log showing the following information: [PCC 17.12.185.A.3.c]
[Material Permit Condition]
 - a. Identification of the device inspected;
 - b. The date of the inspection;
 - c. The results of the inspection;
 - d. Any corrective action taken as a result of the inspection.

6. All other records required by this permit shall be maintained for a minimum of five (5) years including all records that may be necessary to demonstrate compliance with Pima County Code Title 17. [PCC 17.12.185.A.4.b]

IV. Reporting Requirements

- A. The Permittee shall promptly report and submit reports of excess emissions and permit deviations as described in XI.A & B of Part B.
- B. Annual Emissions Inventory Reporting

When requested by the Control Officer, the Permittee shall complete and submit an annual emissions inventory questionnaire. The questionnaire is due 90 days after the Control Officer makes a written request and shall include emission information for the previous calendar year. The questionnaire shall be on a form provided by, or approved by, the Control Officer and shall include the information required by PCC 17.12.320. [PCC 17.12.320]

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Part B

Section 7

Mobile Sources

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 PCC 17.04.340.

I. Emission Limitations/ Standards

A. Off Road Machinery

1. The Permittee shall not cause, allow or permit to be emitted into the atmosphere from any off-road machinery (**mobile source**), visible emissions for any period greater than ten consecutive seconds, the opacity of which exceeds forty percent. Visible emissions when starting cold equipment shall be exempt from this requirement for the first ten minutes. [PCC 17.16.450.A]
2. Off-road machinery shall include trucks, graders, scrapers, rollers, locomotives and other construction and mining machinery not normally driven on a completed public roadway. [PCC 17.16.450.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. [PCC 17.16.470.A]
2. In addition to complying with I.B.1, the Permittee shall not cause, allow or permit the cleaning of any site, roadway or alley without taking reasonable precautions to prevent particulate matter from becoming airborne. Reasonable precautions may include applying dust suppressants. 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. [PCC 17.16.470.B]

Attachment 1

Applicable Regulations

Requirements Specifically Identified as Applicable:

Code of Federal Regulations Chapter 40:

Part 60 Subpart LL New Source Performance Standards (NSPS) for Metallic Mineral Processing Plants
Part 60 Subpart IIII New Source Performance Standards (NSPS) for Stationary Internal Combustion engines

Part 63 Subpart CCCCC National Emission Standards for Hazardous Air Pollutants for Source Categories: Gasoline Dispensing Facilities

Pima County Code (PCC) Title 17, Chapter 17.16:

17.16.010 Local Rules and Standards – Applicability of More than One Standard
17.16.020 Noncompliance with Applicable Standards
17.16.040 Visible Emission Standards: Standards and applicability (Include NESHAP)
17.16.050 Visibility Limiting Standards
17.16.060 Fugitive Dust Producing Activities
17.16.090 Roads and Streets
17.16.100 Particulate Materials
17.16.110 Storage Piles
17.16.120 Mineral Tailings
17.16.165 Standards of Performance for Fossil-Fuel Fired Industrial and Commercial Equipment
17.16.230.B Standards of Performance for Storage Vessels for Petroleum Liquids
17.16.430 Standards of Performance for Unclassified Sources
17.16.450 Off-Road Machinery
17.16.470 Roadway and Site Cleaning Machinery
17.16.490 Standards of Performance for New Stationary Sources

Attachment 2

Equipment List

Table 1 – Coarse Ore Storage & SAG Mill Crushing System								
Name	Emission Unit ID	Description/ Type	Make	Model	Serial Number	Date of Manufacture	Maximum Size OR Capacity	NSPS Applicable
Conveyor To Surface	100-CV-02	1500'L x 36"W	Simplex	TBD	N/A	TBD	666 STPH	Y
Crushed Ore Bin Feed/ Tripper Conveyor	100-CV-03	380'L x 36"W	Simplex	TBD	N/A	TBD	500 STPH	Y
Crushed Ore Storage Bin #1	100-BK-01	50'W x 50'L x 65'H	N/A	TBD	N/A	TBD	10,000 Tons	Y
Crushed Ore Storage Bin #2	100-BK-02	50'W x 50'L x 65'H	N/A	TBD	N/A	TBD	10,000 Tons	Y
Crushed Ore Storage Bin #3	100-BK-03	50'W x 50'L x 65'H	N/A	TBD	N/A	TBD	10,000 Tons	Y
Apron Feeder #1	100-FE-01	20'L x 36"W	Simplex	TBD	N/A	TBD	200 STPH	Y
Apron Feeder #2	100-FE-02	20'L x 36"W	Simplex	TBD	N/A	TBD	200 STPH	Y
Apron Feeder #3	100-FE-03	20'L x 36"W	Simplex	TBD	N/A	TBD	200 STPH	Y
Reclaim Tunnel Conveyor	100-CV-05	160'L x 36"W	Simplex	TBD	N/A	TBD	405 STPH	Y
SAG Mill Feed Conveyor	200-CV-01	36"W x 80'L	Simplex	TBD	N/A	TBD	405 STPH	Y

Table 2 – Copper Concentrate Thickening & Filtration								
Name/ Process (Equipment ID)	Emission Point ID	Description/ Type	Make	Model	Serial Number	Date of Manufacture	Maximum Size OR Capacity	NSPS Applicable
Copper Dewatering Filter Press	440-FL-01	Membrane Style	Micronics	TBD	N/A	TBD	20 ft ³	Y
Copper Concentrate Storage Bin	440-BK-01	Storage Bin	N/A	TBD	N/A	TBD	5,200 ft ³	Y
Copper Concentrate Truck Station	TBD	Loading/ Unloading		N/A	N/A	N/A	N/A	Y
	440-WS-01	Wash Station Entrance	Neptune	N/A	N/A	TBD	N/A	Y
	440-WS-02	Wash Station Exit	Neptune	N/A	N/A	TBD	N/A	Y
	440-PP-12	Wash Area Sump Pump	Metso	N/A	N/A	TBD	N/A	Y

Table 3 – Hydrated Lime & Reagent Distribution Systems							
Name (Equipment ID)	Emission Point ID	Description/ Type	Make/ Model	Serial Number	Date of Manufacture	Maximum Size OR Capacity	NSPS
Hydrated Lime System	900-MS-01	Storage	Merrick	TBD	TBD	1,800 lbs/day	N
Fabric Filter Dust Collector		Baghouse	Merrick	TBD	TBD	99% Collection efficiency	N
Hydrated Lime Screw Conveyor	900-CV-01	Conveyor	Merrick	N/A	N/A	1,800 lbs/day	N
Bulk Bag Unloader	900-BU-01	Process Equipment	Merrick	N/A	N/A	1,800 lbs/day	N
Milk-of-Lime Mix Tank	900-TK-01	Storage	Merrick	N/A	N/A	1,800 lbs/day	N
Silo Filter Vents		Pollution Control Device	Griffin Environmental	TBD	TBD	TBD	N
Bag Breaker System & minor processes	This equipment includes various sized mix tanks, agitators and pumps. They are not required to be listed individually as they are insignificant equipment.						

Table 5 – Combustion Processes								
Name (Equipment ID)	Emission Unit ID	Description Type	Make	Model	Serial Number	Date of Manufacture	Maximum Capacity	NSPS Applicable
Diesel Generator	170-GE-01	Emergency	Caterpillar	3512C	TBD	TBD	1,500 kW	Y
Fire Pump Diesel Generator	800-PP-07	Emergency	Clarke	JU4H-UF34	TBD	TBD	86 kW	Y

Table 7 – Storage Tanks					
Name (Equipment ID)	Emission Unit ID	Description/ Type	Date of Manufacture	Maximum Capacity	NSPS Applicable
Gasoline Fuel Tank	800-TK-01	Storage	TBD	10,000 gallons	Y
Diesel Fuel Tank	800-TK-02	Storage	TBD	10,000 gallons	No

Attachment 3

Insignificant Equipment/ List

1. Gasoline Storage tanks with a capacity of ten thousand gallons or less

The EPA has promulgated a standard for gasoline storage tanks at this capacity. According to PCC 17.04.340, there therefore is an applicable requirement that nullifies the insignificant designation.

2. Diesel and fuel oil storage tanks with capacity of forty thousand gallons or less.
3. Batch mixers with rated capacity of five cubic feet or less.
4. Various plant maintenance and upkeep activities not related to the manufacturing process and allowed by PCC 17.04.340.
5. Various sized mixed tanks, distribution tanks, agitators etc.
6. General Vehicle Refueling (Excludes activities prior to refueling of vehicles.
7. Hand-held or manually operated equipment used for buffering, polishing, carving, cutting, drilling, machining, routing, sanding, sawing, surface grinding, or turning and associated venting hoods.
8. HVAC vents.
9. Lab equipment used exclusively for chemical and physical analyses.
10. Trivial activities that meet the definition of trivial activities in Pima County Code excluding those activities that are subject to any federal regulations or have an applicable requirement in Pima County Code unless those activities have been exempted from the requirement to obtain a permit.