

CLASS I AIR QUALITY PERMIT

DRAFT PERMIT No. 96653

PERMITTEE: South32 Hermosa Inc.
FACILITY: South32 Hermosa Inc.
PLACE ID: 142145
DATE ISSUED: Date Pending
EXPIRY DATE: Date Pending

SUMMARY

This Class I air quality permit is issued to South32 Hermosa Inc., the Permittee, for the construction and operation of the South32 Hermosa Project. The facility is located at 749 Harshaw Road, Patagonia, Santa Cruz, AZ 85624.

South32 Hermosa Inc. (South32 Hermosa) is a mineral exploration and development company focused on the exploration and potential development of the Hermosa Project near Patagonia, Arizona, in Santa Cruz County. The South32 Hermosa Project includes underground mining of the following two deposits:

- Taylor sulfide deposit (Taylor), a high-grade zinc-lead-silver deposit.
- Clark oxide deposit (Clark), a high-grade manganese-zinc-silver deposit.

The facility's potential to emit for nitrogen oxides, carbon monoxide, single hazardous air pollutant (acetaldehyde, acrolein, formaldehyde, and methanol), and hazardous air pollutants is greater than major source thresholds. Therefore, this facility is classified as a major source as defined in Arizona Administrative Code (A.A.C.) R18-2-101.75 and therefore requires a Class I permit pursuant to A.A.C. R18-302.B.1.a.

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

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Table of Contents

ATTACHMENT “A” : GENERAL PROVISIONS.....	4
I. PERMIT EXPIRATION AND RENEWAL.....	4
II. COMPLIANCE WITH PERMIT CONDITIONS	4
III. PERMIT REVISION, REOPENING, REVOCATION AND REISSUANCE, OR TERMINATION FOR CAUSE.....	4
IV. POSTING OF PERMIT	5
V. FEE PAYMENT	5
VI. EMISSIONS INVENTORY QUESTIONNAIRE	5
VII. COMPLIANCE CERTIFICATION	6
VIII. CERTIFICATION OF TRUTH, ACCURACY AND COMPLETENESS	7
IX. INSPECTION AND ENTRY	7
X. ACCIDENTAL RELEASE PROGRAM.....	8
XI. EXCESS EMISSIONS, PERMIT DEVIATIONS, AND EMERGENCY REPORTING	8
XII. RECORDKEEPING REQUIREMENTS	14
XIII. REPORTING REQUIREMENTS	14
XIV. DUTY TO PROVIDE INFORMATION.....	14
XV. PERMIT AMENDMENT OR REVISION.....	15
XVI. FACILITY CHANGES ALLOWED WITHOUT A PERMIT REVISION	15
XVII. TESTING REQUIREMENTS	17
XVIII. PROPERTY RIGHTS.....	19
XIX. SEVERABILITY CLAUSE	19
XX. PERMIT SHIELD.....	19
XXI. PROTECTION OF STRATOSPHERIC OZONE	19
XXII. APPLICABILITY OF NSPS/NESHAP GENERAL PROVISIONS	19
ATTACHMENT “B” : SPECIFIC CONDITIONS	21
I. GENERAL CONDITIONS	21
II. FACILITY-WIDE REQUIREMENTS.....	22
III. METALLIC MINERAL PROCESSING OPERATIONS	26
IV. INTERNAL COMBUSTION ENGINES (ICES).....	44
V. STORAGE TANKS AND DISPENSING	70
VI. CONCRETE BATCH PLANT	76
VII. UNCLASSIFIED SOURCES	77
VIII. FUGITIVE DUST REQUIREMENTS	80
IX. OTHER PERIODIC ACTIVITIES.....	83
X. PUBLIC ACCESS RESTRICTIONS PLAN.....	87
XI. AMBIENT MONITORING REQUIREMENTS	87
ATTACHMENT “C” : EQUIPMENT LIST.....	91
ATTACHMENT “D” : DUST CONTROL PLAN.....	105
ATTACHMENT “E” : TAILINGS MANAGEMENT PLAN	106

ATTACHMENT "A": GENERAL PROVISIONS

I. PERMIT EXPIRATION AND RENEWAL

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

II. COMPLIANCE WITH PERMIT CONDITIONS

- A.** The Permittee shall comply with all conditions of this permit including all applicable requirements of the Arizona Revised Statutes (A.R.S.) Title 49, Chapter 3, and the air quality rules under Title 18, Chapter 2 of the Arizona Administrative Code. Any permit noncompliance is grounds for enforcement action; for permit termination, revocation and reissuance, revision; or for denial of a permit renewal application. In addition, noncompliance with any federally enforceable requirement constitutes a violation of the Clean Air Act.
[A.A.C. R18-2-306.A.8.a]
- B.** It shall not be a defense for a Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
[A.A.C. R18-2-306.A.8.b]

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

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

IV. POSTING OF PERMIT

2. Additional requirements, including excess emissions requirements, become applicable to an affected source under the acid rain program. Upon approval by the EPA Administrator, excess emissions offset plans shall be deemed to be incorporated into the Class I permit;
[A.A.C. R18-2-321.A.1.b]
 3. The Director or the EPA Administrator determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit; and
[A.A.C. R18-2-321.A.1.c]
 4. The Director or the EPA Administrator determines that the permit needs to be revised or revoked to assure compliance with the applicable requirements.
[A.A.C. R18-2-321.A.1.d]
- C. Proceedings to reopen and issue a permit, including appeal of any final action relating to a permit reopening, shall follow the same procedures as apply to initial permit issuance and shall, except for reopenings under Condition III.B.1 above, affect only those parts of the permit for which cause to reopen exists. Such reopening shall be made as expeditiously as practicable. Permit reopenings for reasons other than those stated in Condition III.B.1 above shall not result in a resetting of the five-year permit term.
[A.A.C. R18-2-321.A.2]

IV. POSTING OF PERMIT

- A. The Permittee shall post this permit or a certificate of permit issuance at the facility in such a manner as to be clearly visible and accessible. All equipment covered by this permit shall be clearly marked with one of the following:
[A.A.C. R18-2-315.A]
1. Current permit number; or
 2. Serial number or other equipment identification number (equipment ID number) that is also listed in the permit to identify that piece of equipment.
- B. A copy of the complete permit shall be kept on site.
[A.A.C. R18-2-315.B]

V. FEE PAYMENT

The Permittee shall pay fees to the Director pursuant to A.R.S. § 49-426(E) and A.A.C. R18-2-326.
[A.A.C. R18-2-306.A.9 and -326]

VI. EMISSIONS INVENTORY QUESTIONNAIRE

- A. The Permittee shall complete and submit to the Director an emissions inventory questionnaire no later than June 1 of each year.
[A.A.C. R18-2-327.A.1.a]

- B.** The emissions inventory questionnaire shall be on an electronic or paper form provided by the Director and shall include the information required by A.A.C. R18-2-327.A.3 for the previous calendar year.

[A.A.C. R18-2-327.A.3]

- C.** The Permittee shall submit to the Director an amendment to an emissions inventory questionnaire, containing the documentation required by A.A.C. R18-2-327.A.3, whenever the Permittee discovers or receives notice, within two years of the original submittal, that incorrect or insufficient information was submitted to the Director by a previous emissions inventory questionnaire. The amendment shall be submitted to the Director within 30 days of discovery or receipt of notice. If the incorrect or insufficient information resulted in an incorrect annual emissions fee, the Director shall require that additional payment be made or shall apply an amount as a credit to a future annual emissions fee. The submittal of an amendment shall not subject the Permittee to an enforcement action or a civil or criminal penalty if the original submittal of incorrect or insufficient information was not due to willful neglect.

[A.A.C. R18-2-327.A.4]

VII. COMPLIANCE CERTIFICATION

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

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

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

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

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

2. Identification of the methods or other means used by the Permittee for determining the compliance status with each term and condition during the certification period. The methods and other means shall include, at a minimum, the methods and means required under R18-2-306.A.3. If necessary, the Permittee also shall identify any other material information that shall be included in the certification to comply with section 113(c)(2) of the Clean Air Act, which prohibits knowingly making a false certification or omitting material information;

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

3. Status of compliance with the terms and conditions of the permit for the period covered by the certification, including whether compliance during the period was continuous or intermittent. The certification shall be based on the methods or means designated in Condition VII.B.2 above. The certifications shall identify each deviation (including any deviations reported pursuant to Condition XI.B of

this Attachment) during the period covered by the certification and take it into account for consideration in the compliance certification;

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

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

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

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

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

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

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

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

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

VIII. CERTIFICATION OF TRUTH, ACCURACY AND COMPLETENESS

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

[A.A.C. R18-2-309.3]

IX. INSPECTION AND ENTRY

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

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

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

- B. Have access to and copy, at reasonable times, any records that are required to be kept under the conditions of the permit;

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

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

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

- D. Sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with the permit or other applicable requirements; and

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

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

X. ACCIDENTAL RELEASE PROGRAM

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

[40 CFR Part 68]

XI. EXCESS EMISSIONS, PERMIT DEVIATIONS, AND EMERGENCY REPORTING

A. Excess Emissions Reporting

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

1. Excess emissions shall be reported as follows:

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

(1) Notification by myDEQ, telephone, or facsimile within 24 hours of the time when the Permittee first learned of the occurrence of excess emissions including all available information from Condition XI.A.1.b below.

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

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

b. The report shall contain the following information:

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

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

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

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

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

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

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

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

(5) Nature and cause of such emissions;

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

- (6) If the excess emissions were the result of a malfunction, the steps taken to remedy the malfunction and the steps taken or planned to prevent the recurrence of such malfunctions;
[A.A.C. R18-2-310.01.B.6]
 - (7) Steps that were or are being taken to limit the excess emissions; and
[A.A.C. R18-2-310.01.B.7]
 - (8) If the excess emissions resulted from startup or malfunction, the report shall contain a list of the steps taken to comply with any permit procedures governing source operation during periods of startup or malfunction.
[A.A.C. R18-2-310.01.B.8]
2. In the case of continuous or recurring excess emissions, the notification requirements shall be satisfied if the source provides the required notification after excess emissions are first detected and includes in such notification an estimate of the time the excess emissions will continue. Excess emissions occurring after the estimated time period, or changes in the nature of the emissions as originally reported, shall require additional notification pursuant to Condition XI.A.1 above.
[A.A.C. R18-2-310.01.C]

B. Permit Deviations Reporting

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

1. Notice that complies with Condition XI.A.1 above is prompt for deviations that constitute excess emissions;
[A.A.C. R18-2-306.A.5.b.i]
2. Notice that is submitted within two (2) working days of discovery of the deviation is prompt for deviations of permit conditions identified by Condition II.C.2 of Attachment “B”;
[A.A.C. R18-2-306.A.5.b.ii]
3. Except as provided in Conditions XI.B.1 and 2 above, prompt notification of all other types of deviations shall be every 6 months, concurrent with the semiannual compliance certifications required in Section VII, and can be submitted via myDEQ, the Arizona Department of Environmental Quality’s online portal.
[A.A.C. R18-2-306.A.5.b.ii]

C. Emergency Provision

1. An “emergency” means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, that require immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.

[A.A.C. R18-2-306.E.1]
2. An emergency constitutes an affirmative defense to an action brought for noncompliance with technology-based emission limitations if Condition XI.C.3 below is met.

[A.A.C. R18-2-306.E.2]
3. The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:

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

 - a. An emergency occurred and that the Permittee can identify the cause(s) of the emergency;

[A.A.C. R18-2-306.E.3.a]
 - b. The permitted facility was being properly operated at the time of the emergency;

[A.A.C. R18-2-306.E.3.b]
 - c. During the period of the emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards or other requirements in the permit; and

[A.A.C. R18-2-306.E.3.c]
 - d. The Permittee submitted notice of the emergency to the Director by certified mail, facsimile, or hand delivery within two working days of the time when emission limitations were exceeded due to the emergency. This notice shall contain a description of the emergency, any steps taken to mitigate emissions, and corrective action taken.

[A.A.C. R18-2-306.E.3.d]
4. In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.

[A.A.C. R18-2-306.E.4]
5. This provision is in addition to any emergency or upset provision contained in any applicable requirement.

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

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

1. Applicability

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

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

2. Affirmative Defense for Malfunctions

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

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

- a. The excess emissions resulted from a sudden and unavoidable breakdown of process equipment or air pollution control equipment beyond the reasonable control of the Permittee;
[A.A.C. R18-2-310.B.1]
- b. The air pollution control equipment, process equipment, or processes were at all times maintained and operated in a manner consistent with good practice for minimizing emissions;
[A.A.C. R18-2-310.B.2]
- c. If repairs were required, the repairs were made in an expeditious fashion when the applicable emission limitations were being exceeded. Off-shift labor and overtime were utilized where practicable to ensure that the repairs were made as expeditiously as possible. If off-shift labor and overtime were not utilized, the Permittee satisfactorily demonstrated that the measures were impracticable;
[A.A.C. R18-2-310.B.3]

- d. The amount and duration of the excess emissions (including any bypass operation) were minimized to the maximum extent practicable during periods of such emissions;
[A.A.C. R18-2-310.B.4]
- e. All reasonable steps were taken to minimize the impact of the excess emissions on ambient air quality;
[A.A.C. R18-2-310.B.5]
- f. The excess emissions were not part of a recurring pattern indicative of inadequate design, operation, or maintenance;
[A.A.C. R18-2-310.B.6]
- g. During the period of excess emissions there were no exceedances of the relevant ambient air quality standards established in Title 18, Chapter 2, Article 2 of the Arizona Administrative Code that could be attributed to the emitting source;
[A.A.C. R18-2-310.B.7]
- h. The excess emissions did not stem from any activity or event that could have been foreseen and avoided, or planned, and could not have been avoided by better operations and maintenance practices;
[A.A.C. R18-2-310.B.8]
- i. All emissions monitoring systems were kept in operation if at all practicable; and
[A.A.C. R18-2-310.B.9]
- j. The Permittee's actions in response to the excess emissions were documented by contemporaneous records.
[A.A.C. R18-2-310.B.10]

3. Affirmative Defense for Startup and Shutdown

- a. Except as provided in Condition XI.D.3.b below, and unless otherwise provided for in the applicable requirement, emissions in excess of an applicable emission limitation due to startup and shutdown shall constitute a violation. When emissions in excess of an applicable emission limitation are due to startup and shutdown, the Permittee has an affirmative defense to a civil or administrative enforcement proceeding based on that violation, other than a judicial action seeking injunctive relief, if the Permittee has complied with the reporting requirements of A.A.C. R18-2-310.01 and has demonstrated all of the following:
[A.A.C. R18-2-310.C.1]
 - (1) The excess emissions could not have been prevented through careful and prudent planning and design;
[A.A.C. R18-2-310.C.1.a]
 - (2) If the excess emissions were the result of a bypass of control equipment, the bypass was unavoidable to prevent loss of life,

personal injury, or severe damage to air pollution control equipment, production equipment, or other property;
[A.A.C. R18-2-310.C.1.b]

(3) The air pollution control equipment, process equipment, or processes were at all times maintained and operated in a manner consistent with good practice for minimizing emissions;
[A.A.C. R18-2-310.C.1.c]

(4) The amount and duration of the excess emissions (including any bypass operation) were minimized to the maximum extent practicable during periods of such emissions;
[A.A.C. R18-2-310.C.1.d]

(5) All reasonable steps were taken to minimize the impact of the excess emissions on ambient air quality;
[A.A.C. R18-2-310.C.1.e]

(6) During the period of excess emissions there were no exceedances of the relevant ambient air quality standards established in Title 18, Chapter 2, Article 2 of the Arizona Administrative Code that could be attributed to the emitting source;
[A.A.C. R18-2-310.C.1.f]

(7) All emissions monitoring systems were kept in operation if at all practicable; and
[A.A.C. R18-2-310.C.1.g]

(8) Contemporaneous records documented the Permittee's actions in response to the excess emissions.
[A.A.C. R18-2-310.C.1.h]

b. If excess emissions occur due to a malfunction during routine startup and shutdown, then those instances shall be treated as other malfunctions subject to Condition XI.D.2 above.
[A.A.C. R18-2-310.C.2]

4. Affirmative Defense for Malfunctions during Scheduled Maintenance

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

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

5. Demonstration of Reasonable and Practicable Measures

For an affirmative defense under Condition XI.D.2 or XI.D.3, the Permittee shall demonstrate, through submission of the data and information required by this Condition XI.D and Condition XI.A.1 above, that all reasonable and practicable measures within the Permittee's control were implemented to prevent the occurrence of the excess emissions.

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

XII. RECORDKEEPING REQUIREMENTS

- A.** The Permittee shall keep records of all required monitoring information including, but not limited to, the following:
- [A.A.C. R18-2-306.A.4.a]
1. The date, place as defined in the permit, and time of sampling or measurements;
[A.A.C. R18-2-306.A.4.a.i]
 2. The date(s) any analyses were performed;
[A.A.C. R18-2-306.A.4.a.ii]
 3. The name of the company or entity that performed the analyses;
[A.A.C. R18-2-306.A.4.a.iii]
 4. A description of the analytical techniques or methods used;
[A.A.C. R18-2-306.A.4.a.iv]
 5. The results of analyses; and
[A.A.C. R18-2-306.A.4.a.v]
 6. The operating conditions as existing at the time of sampling or measurement.
[A.A.C. R18-2-306.A.4.a.vi]
- B.** The Permittee shall retain records of all required monitoring data and support information for a period of at least five (5) years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings or other data recordings for continuous monitoring instrumentation, and copies of all reports required by the permit.
[A.A.C. R18-2-306.A.4.b]

XIII. REPORTING REQUIREMENTS

- A.** The Permittee shall submit the following reports:
- B.** Compliance certifications in accordance with Section VII above.
[A.A.C. R18-2-306.A.5.a]
- C.** Excess emission; permit deviation, and emergency reports in accordance with Section XI above.
[A.A.C. R18-2-306.A.5.b]
- D.** Other reports required by any condition of Attachment "B".
[A.A.C. R18-2-306.A.5.a]

XIV. DUTY TO PROVIDE INFORMATION

- A.** The Permittee shall furnish to the Director, within a reasonable time, any information that the Director may request in writing to determine whether cause exists for revising, revoking and reissuing, or terminating the permit, or to determine compliance with the permit. Upon

request, the Permittee shall also furnish to the Director copies of records required to be kept by the permit. For information claimed to be confidential, the Permittee shall furnish an additional copy of such records directly to the EPA Administrator along with a claim of confidentiality.

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

- B.** If the Permittee has failed to submit any relevant facts or has submitted incorrect information in the permit application, the Permittee shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary facts or corrected information.

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

XV. PERMIT AMENDMENT OR REVISION

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

- A.** Administrative Permit Amendment; [A.A.C. R18-2-318]
- B.** Minor Permit Revision; and [A.A.C. R18-2-319]
- C.** Significant Permit Revision. [A.A.C. R18-2-320]
- D.** The applicability and requirements for such action are defined in the above referenced regulations.

XVI. FACILITY CHANGES ALLOWED WITHOUT A PERMIT REVISION

- A.** The Permittee may make changes that contravene an express permit term without a permit revision if all of the following apply:
1. The changes are not modifications under any provision of Title I of the Act or under ARS § 49-401.01(24); [A.A.C. R18-2-317.A.1]
 2. The changes do not exceed the emissions allowable under the permit whether expressed therein as a rate of emissions or in terms of total emissions; [A.A.C. R18-2-317.A.2]
 3. The changes do not violate any applicable requirements or trigger any additional applicable requirements; [A.A.C. R18-2-317.A.3]
 4. The changes satisfy all requirements for a minor permit revision under A.A.C. R18-2-319.A; [A.A.C. R18-2-317.A.4]

5. The changes do not contravene federally enforceable permit terms and conditions that are monitoring (including test methods), record keeping, reporting, or compliance certification requirements; and
[A.A.C. R18-2-317.A.5]
6. The changes do not constitute a minor NSR modification.
[A.A.C. R18-2-317.A.6]
- B.** The substitution of an item of process or pollution control equipment for an identical or substantially similar item of process or pollution control equipment shall qualify as a change that does not require a permit revision, if it meets all of the requirements of Conditions XVI.A above and XVI.C and D below.
[A.A.C. R18-2-317.B]
- C.** For each change under Conditions XVI.A and XVI.B above, a written notice by certified mail or hand delivery shall be received by the Director and the EPA Administrator a minimum of 7 working days in advance of the change. Notifications of changes associated with emergency conditions, such as malfunctions necessitating the replacement of equipment, may be provided less than 7 working days in advance of the change, but must be provided as far in advance of the change as possible or, if advance notification is not practicable, as soon after the change as possible.
[A.A.C. R18-2-317.D]
- D.** Each notification shall include:
1. When the proposed change will occur;
[A.A.C. R18-2-317.E.1]
 2. A description of the change;
[A.A.C. R18-2-317.E.2]
 3. Any change in emissions of regulated air pollutants; and
[A.A.C. R18-2-317.E.3]
 4. Any permit term or condition that is no longer applicable as a result of the change.
[A.A.C. R18-2-317.E.7]
- E.** The permit shield described in A.A.C. R18-2-325 shall not apply to any change made under this Section XVI.
[A.A.C. R18-2-317.F]
- F.** Except as otherwise provided for in the permit, making a change from one alternative operating scenario to another as provided under A.A.C. R18-2-306.A.11 shall not require any prior notice under this Section XVI.
[A.A.C. R18-2-317.G]
- G.** Notwithstanding any other part of Section 0, the Director may require a permit to be revised for any change that, when considered together with any other changes submitted by the same source under Section 0 over the term of the permit, do not satisfy Condition XVI.A above.
[A.A.C. R18-2-317.H]

XVII. TESTING REQUIREMENTS

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

- B.** Operational Conditions during Performance Testing

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

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

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

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

- D.** Test Plan

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

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

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

- E.** Stack Sampling Facilities

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

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

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

- F.** Interpretation of Final Results

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

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

G. Report of Final Test Results

A written report of the results of performance tests conducted pursuant to 40 CFR 63, shall be submitted to the Director within 60 days after the test is performed. A written report of the results of all other performance tests shall be submitted within 4 weeks after the completion of the testing as specified in the Arizona Testing Manual. All performance testing reports shall be submitted in accordance with the Arizona Testing Manual and A.A.C. R18-2-312.A.

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

H. Extension of Performance Test Deadline

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

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

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

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

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

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

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

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

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

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

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

[A.A.C. R18-2-312.J.5]

XVIII. PROPERTY RIGHTS

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

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

XIX. SEVERABILITY CLAUSE

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

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

XX. PERMIT SHIELD

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

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

XXI. PROTECTION OF STRATOSPHERIC OZONE

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

[40 CFR Part 82]

XXII. APPLICABILITY OF NSPS/NESHAP GENERAL PROVISIONS

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

[40 CFR Part 60 Subpart A and Part 63 Subpart A]

ATTACHMENT “B”: SPECIFIC CONDITIONS

I. GENERAL CONDITIONS

A. Relationship Between Exploration and Permitted Operations

1. The Hermosa Project consists of two separate projects that will be brought together in this permit: The Hermosa Exploration and Voluntary Remediation Project (E&VRP) and the Hermosa Mine.

[A.A.C. R18-2-302 and -306.01. A]

- a. The Hermosa E&VRP consists of the following facilities and activities operating under an ADEQ “no permit or registration required” determination dated January 26, 2018: management of legacy tailings/soils and exploration materials in the existing tailings storage facility (TSF1), water treatment plants 1 and 2, exploration concrete batch plant, exploration shaft and decline construction and associated ventilation and safety activities, fuel tanks and ancillary chemical handling, drilling (both exploratory and water management), emergency generators , non-emergency engines, access and haul road construction and use, and ancillary exploration and administrative buildings.

- b. The Hermosa Mine consists of the permitted equipment and activities set forth in Attachment “C” of this permit.

2. Until this permit becomes final as described in Condition I.A.4, the Hermosa E&VRP may continue to operate pursuant to the “no permit or registration required” determination dated January 26, 2018 and shall limit total emissions from the Hermosa E&VRP to less than the permitting exemption threshold.

[A.A.C. R18-2-302 and 306.01.A]

3. *The Permittee shall maintain records demonstrating that the Hermosa E&VRP remains below permitting exemption thresholds. These records shall be made available to the Department upon request.*

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

[Material Permit Conditions are indicated with underline and italic]

4. The Permittee shall provide notification when any of the activities/facilities listed in Condition I.A.1 have completed their exploration use and the date that they will be retired or transferred to the Hermosa Mine and covered under the relevant provisions of this permit.

[A.A.C. R18-2-306.01.A.]

B. Initial Startup

1. Hermosa Mine Equipment

- a. Initial startup of the Taylor underground crusher system shall occur when rock or ore is first processed through the crusher and hoisted to the surface in the skip.

II. FACILITY-WIDE REQUIREMENTS

- b. Initial startup of the Taylor above ground mill shall occur when ore is first processed through the mill circuit to produce concentrate other than for pre-production commissioning.
- c. Initial startup of the Clark above ground crusher system shall occur when ore is first processed through the crusher system, other than for pre-production commissioning, and placed into a transport container or storage silo.
- d. Initial startup of internal combustion engines for testing purposes shall occur upon first start-up of each engine on-site.
- e. Initial startup of the Hermosa Mine for ambient monitoring purposes shall occur upon the earlier of concentrate production from Taylor or crushed ore placement in a transport container or silo at Clark.

2. Recordkeeping and reporting.

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

- a. The Permittee shall keep records of temporary activities authorized under Condition I.A.4, the reasonable precautions implemented, and the date any roads were converted to permanent and added to the Dust Control Plan.
- b. The Permittee shall keep records of the startup date of each group of equipment in Condition I.B.1.a through c, each engine in Condition I.B.1.d, and the start date for the ambient monitoring in Condition I.B.1.e.
- c. All records shall be made available to the Department upon request.

II. FACILITY-WIDE REQUIREMENTS

A. Applicability

This Section is applicable to facility-wide operations.

B. Opacity

1. Instantaneous Surveys and Six-Minute Observations

- a. Any instantaneous survey or six-minute observation required by this permit shall be conducted by an EPA Reference Method 9 certified observer.

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

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

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

3. Monitoring, Recordkeeping, and Reporting Requirements

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

II. FACILITY-WIDE REQUIREMENTS

- a. At the frequency specified in the following sections of this permit, the Permittee shall conduct an instantaneous survey of visible emissions from both process stack sources, when in operation, and fugitive dust sources.
- b. If the visible emissions on an instantaneous basis appears less than or equal to the applicable opacity standard, then the Permittee shall keep a record of the name of the observer, the date on which the instantaneous survey was made, and the results of the instantaneous survey.
- c. If the visible emissions on an instantaneous basis appears greater than the applicable opacity standard, then the Permittee shall immediately conduct a six-minute observation of the visible emissions.
 - (1) If the six-minute observation of the visible emissions is less than or equal to the applicable opacity standard, then the Permittee shall record the name of the observer, the date on which the six-minute observation was made, and the results of the six-minute observation.
 - (2) If the six-minute observation of the visible emissions is greater than the applicable opacity standard, then the Permittee shall do the following:
 - (a) Adjust or repair the controls or equipment to reduce opacity to less than or equal to the opacity standard;
 - (b) Record the name of the observer, the date on which the six-minute observation was made, the results of the six-minute observation, and all corrective action taken; and
 - (c) Report the event as an excess emission for opacity in accordance with Condition XI.A of Attachment "A".
 - (d) Conduct another six-minute observation to document the effectiveness of the adjustments or repairs completed.

C. Reporting Requirements

1. At the time the compliance certifications required by Section VII of Attachment "A" are submitted, the Permittee shall submit summary reports of all monitoring activities required by this Attachment performed in the same six-month period as applied to the compliance certification period. All instances of deviations from permit requirements shall be clearly identified in the reports.

[A.A.C. R18-2-306.A.5]
2. Deviations from the following Attachment "B" permit conditions shall be promptly reported in accordance with Condition XI.B.2 of Attachment "A":

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

 - a. Condition I;

II. FACILITY-WIDE REQUIREMENTS

- b. Condition III.A.3, III.A.6, III.B.4, III.B.5.a, III.B.5.b, , and III.B.7;
- c. Condition IV.A.2, IV.A.6, IV.A.7, IV.B.2, and IV.C.6;
- d. Condition V.B.2.a;
- e. Condition VI.C, and VI.E;
- f. Condition VII.C.1, VII.C.2, VII.D, and VII.E.2;
- g. Condition VIII, and VIII.B.3.b;
- h. Condition IX.A.2.a, IX.B.2.b.

D. Operational Limitations

1. At the Taylor site:

- a. *The Permittee shall limit the blasting activity to no more than one blast per hour.*
 [A.A.C. R18-2-306.01 and -331.A.3.a]
 [Material Permit Conditions are indicated with underline and italic]
- b. *The Permittee shall limit the blasting activity to no more than two blasts per day.*
 [A.A.C. R18-2-306.01 and -331.A.3.a]
 [Material Permit Conditions are indicated with underline and italic]
- c. *The Permittee shall limit the maximum emulsion agent usage during blasting to no more than 17.42 tons per hour.*
 [A.A.C. R18-2-306.01 and -331.A.3.a]
 [Material Permit Conditions are indicated with underline and italic]
- d. *The Permittee shall limit the maximum emulsion agent usage during blasting to no more than 4,500 tons per year based on 12-month rolling total.*
 [A.A.C. R18-2-306.01 and -331.A.3.a]
 [Material Permit Conditions are indicated with underline and italic]
- e. *The Permittee shall limit the amount of total Development Ore mined to no more than 413,389 tons per year based on 12-month rolling total.*
 [A.A.C. R18-2-306.01 and -331.A.3.a]
 [Material Permit Conditions are indicated with underline and italic]
- f. *The Permittee shall limit the amount of total Stope Ore mined to no more than 4,618,867 tons per year based on 12-month rolling total.*
 [A.A.C. R18-2-306.01 and -331.A.3.a]
 [Material Permit Conditions are indicated with underline and italic]
- g. *The Permittee shall limit the amount of total rock processed by the Primary Crusher to no more than 37,032 tons per day.*
 [A.A.C. R18-2-306.01 and -331.A.3.a]

II. FACILITY-WIDE REQUIREMENTS

[Material Permit Conditions are indicated with underline and italic]

- h. *The Permittee shall limit the amount of total rock processed by the Primary Crusher to no more than 4,665,131 tons per year based on 12-month rolling total.*

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

[Material Permit Conditions are indicated with underline and italic]

- i. *The Permittee shall limit the amount of total rock processed by the Pebble Crusher to no more than 5,280 tons per day.*

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

[Material Permit Conditions are indicated with underline and italic]

2. At the Clark site:

- a. *The Permittee shall limit the blasting activity to no more than one blast per hour.*

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

[Material Permit Conditions are indicated with underline and italic]

- b. *The Permittee shall limit the blasting activity to no more than two blasts per day.*

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

[Material Permit Conditions are indicated with underline and italic]

- c. *The Permittee shall limit the maximum emulsion agent usage during blasting to no more than 4.60 tons per hour.*

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

[Material Permit Conditions are indicated with underline and italic]

- d. *The Permittee shall limit the maximum emulsion agent usage during blasting to no more than 562 tons per year based on 12-month rolling total.*

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

[Material Permit Conditions are indicated with underline and italic]

- e. *The Permittee shall limit the amount of total rock processed by the Rock Breaker to no more than 47,131 tons per year based on 12-month rolling total.*

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

[Material Permit Conditions are indicated with underline and italic]

- f. *The Permittee shall limit the amount of total ore mined to no more than 733,798 tons per year based on 12-month rolling total.*

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

[Material Permit Conditions are indicated with underline and italic]

- g. *The Permittee shall limit the amount of total rock processed by the Primary Crusher to no more than 2,904 tons per day.*

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

[Material Permit Conditions are indicated with underline and italic]

3. Nothing in this Attachment (Attachment “B”) shall be so construed as to prevent the utilization of measurements from emissions monitoring devices or techniques not designated as performance tests as evidence of compliance with applicable good maintenance and operating requirements.
[A.A.C. R18-2-312.I]
4. Monitoring, Recordkeeping, and Reporting Requirements
- a. The Permittee shall keep records of dates and times when blasting is conducted and the amount of emulsion agent in tons used during each blast. The records of each day’s blasting activity shall be available in a central log no later than 5:00 pm the following business day.
[A.A.C. R18-2-306.A.3.c]
- b. The Permittee shall record the total tons of daily rock mined (including ore and waste rock). The records of each day’s mined rock total shall be available in a central log no later than 5:00 pm the following business day.
[A.A.C. R18-2-306.A.3.c]
- c. The Permittee shall maintain, on-site, records of the manufacturer's specifications or O&M plan for all equipment listed in Attachment “C” of this permit.
[A.A.C. R18-2-306.A.4]
- d. All records, analyses, and reports required by this permit shall be retained for a minimum of five years from the date of generation. The most recent two years of data shall be kept on-site. All records shall be made available for inspection by authorized Department personnel during normal working hours.
[A.A.C. R18-2-306.A.4]
- e. The Permittee shall notify the Director in writing within 30 days of initial startup (as defined in Condition I.B) of the equipment listed in Attachment “C”. Equipment purchases within a specified period may be grouped and reported together. This notification shall contain any available information required to complete Attachment “C”.
[A.A.C.R18-2-304.H]

III. METALLIC MINERAL PROCESSING OPERATIONS

This Section applies to equipment and operations associated with metallic mineral processing operations.

- A.** Facilities Subject to the Standards of Performance for Existing Nonferrous Metals Industry Sources Under A.A.C. R18-2-721
1. Applicability

The facilities subject to the requirements of this Condition III.A are identified in the last column of the Equipment List in Attachment “C”.

2. Emission Limitations and Standard

a. Particulate Matter

- (1) The Permittee shall not cause, allow, or permit the discharge of particulate matter into the atmosphere in any one hour from any process source in total quantities in excess of the amounts calculated by one of the following equations and actual values shall be calculated from the applicable equations and rounded off to two decimal places:

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

- (a) For process sources having a process weight rate of 60,000 pounds per hour (30 tons per hour) or less, the maximum allowable emissions shall be determined by the following equation:

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

Where:

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

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

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

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

Where “ E ” and “ P ” are defined as indicated in Condition III.A.2.a(1)(a) above.

- (2) For purposes of Condition III.A.2.a(1) above, the total process weight from all similar units employing a similar type process shall be used in determining the maximum allowable emission of particulate matter.

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

b. Opacity

- (1) The opacity of any plume or effluent from any existing, stationary, point source shall not be greater than 20%.

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

- (2) If the presence of uncombined water is the only reason for an exceedance of the visible emissions requirement in Condition

III.A.2.b(1) above, the exceedance shall not constitute a violation of the applicable opacity limit.

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

3. Air Pollution Control Requirements

- a. *At all times, the Permittee shall, to the extent practicable, utilize wet suppression on the following emission units to minimize particulate matter emissions and comply with the applicable emission limitations and standards of Condition III.A.2 above. Wet suppression options include water sprays, surfactant use, water jets, foggers, inherent moisture content (including moisture from upstream water sprays), or other equivalent control methods.* For purposes of this condition, "to the extent practicable" for purposes of wet suppression does not require addition of water to the extent that the controlled material adheres to conveyor belts or feeders or clogs transfer points.

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

[Material Permit Conditions are indicated with underline and italic]

- (1) *Drop from 21710-CV-00001 Primary Mill Feed Conveyor to 22100-CH-00001 Primary Mill Feed Chute (Process # DP-18);*
- (2) *Transfer of Development Ore from Face to Loader (Process # DP-40);*
- (3) *Transfer of Development Ore from Loader to Stockpile (Process # DP-41);*
- (4) *Transfer of Development Ore from Stockpile to Loader (Process # DP-42);*
- (5) *Transfer of Development Ore from Stockpile to Loader (Process # DP-43);*
- (6) *Transfer of Development Ore Mined from Haul Truck to Coarse Ore Bin (Process # DP-49);*
- (7) *Transfer of Development Ore Mined from Crushed Ore Bin to Shaft Loadout Conveyor (Process # DP-54);*
- (8) *Transfer of Development Ore Mined from Shaft Loadout Conveyor to Measurement Flask (Process # DP-55);*
- (9) *Transfer of Development Ore Mined from Measurement Flask to Skip (Process # DP-56);*
- (10) *Transfer of Development Waste Mined from Face to Loader (Process # DP-57);*

- (11) Transfer of Development Waste Mined from Loader to Stockpile (Process # DP-58);
- (12) Transfer of Development Waste Mined from Stockpile to Loader (Process # DP-59);
- (13) Transfer of Development Waste Mined from Loader to Haul Truck (Process # DP-60);
- (14) Transfer of Development Waste Mined from Haul Truck to Waste Pass Grizzly (Process # DP-61);
- (15) Transfer of Development Waste Mined from Waste Pass Grizzly to Shaft Loadout Conveyor (Process # DP-62);
- (16) Transfer of Development Waste Mined from Shaft Loadout Conveyor to Measurement Flask (Process # DP-63);
- (17) Transfer of Development Waste Mined from Measurement Flask to Skip (Process # DP-64);
- (18) Transfer of Stope Ore from Stope to Loader (Process # DP-65);
- (19) Transfer of Stope Ore from Loader to Orepass 1 (Process # DP-70);
- (20) Transfer of Stope Ore from Orepass 1 to Haul Truck (Process # DP-71);
- (21) Transfer of Stope Ore from Haul Truck to Orepass 2 (Process # DP-72);
- (22) Transfer of Stope Ore from Orepass 2 to Haul Truck (Process # DP-73);
- (23) Transfer of Stope Ore from Haul Truck to Coarse Ore Bin (Process # DP-74);
- (24) Transfer of Stope Ore from Coarse Ore Bin to Crusher Feeder Belt/Hopper (Process # DP-75);
- (25) Transfer of Stope Ore from Crusher Feeder Belt/Hopper to Transfer Conveyor (Process # DP-76);
- (26) Transfer of Stope Ore from Transfer Conveyor to Reversing Conveyor (Process # DP-77);
- (27) Transfer of Stope Ore from Reversing Conveyor to Crushed Ore Bin (Process # DP-78);

- (28) Transfer of Stope Ore from Crushed Ore Bin to Shaft Loadout Conveyor (Process # DP-79);
- (29) Transfer of Stope Ore from Shaft Loadout Conveyor to Measurement Flask (Process # DP-80);
- (30) Transfer of Stope Ore from Measuring Flask to Skip (Process # DP-81);
- (31) Transfer of Development Ore from Face to Loader (Process # DP-124);
- (32) Transfer of Development Ore from Loader to Stockpile (Process # DP-125);
- (33) Transfer of Development Ore from Stockpile to Loader (Process # DP-126);
- (34) Transfer of Development Ore Mined from Loader to Haul Truck (Process # DP-127);
- (35) Transfer of Development Waste Mined from Face to Loader (Process # DP-129);
- (36) Transfer of Development Waste Mined from Loader to Stockpile (Process # DP-130);
- (37) Transfer of Development Waste Mined from Stockpile to Loader (Process # DP-131);
- (38) Transfer of Development Waste Mined from Loader to Haul Truck (Process # DP-132);
- (39) Transfer of Stope Ore from Stope to Loader (Process # DP-134);
- (40) Transfer of Stope Ore from Loader to Stockpile (Process # DP-135);
- (41) Transfer of Stope Ore from Stockpile to Loader (Process # DP-136); and
- (42) Transfer of Stope Ore from Loader to Haul Truck (Process # DP-137).

- b. At all times, the Permittee shall, to the extent practicable, utilize wet suppression on the following emission units to minimize particulate matter emissions and keep the processes completely wet and saturated to comply with the applicable emission limitations and standards of Condition III.A.2 above. For purposes of this condition, "to the extent practicable" for purposes of wet suppression does not require addition of water to the

extent that the controlled material adheres to conveyor belts or feeders or clogs transfer points.

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

[Material Permit Conditions are indicated with underline and italic]

- (1) Drop from 22110-ML-00001 Primary Mill to 22110-SN-00002 Primary Mill Discharge Screen (Process # DP-19); and
- (2) Drop from 22110-SN-00002 Primary Mill Discharge Screen to 22210-CV-00002 Primary Screen Discharge Conveyor (Process # DP-20).

c. At all times, including periods of startup, shutdown, and malfunction, the Permittee shall, install, maintain, and operate the 21300-DCD-006 Silo Discharge Dust Collection System (DC-6), and to the extent practicable, to control the particulate matter emissions from the following processes:

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

[Material Permit Conditions are indicated with underline and italic]

- (1) Drop from 21700-SCB-002 Discharge Feeder Belt Scale No. 1 to 21700-CVR-008 Primary Mill Feed Conveyor (Process # DP-15);
- (2) Drop from 21700-SCB-004 Discharge Feeder Belt Scale No. 2 to 21700-CVR-008 Primary Mill Feed Conveyor (Process # DP-16); and
- (3) Drop from 21700-SCB-006 Discharge Feeder Belt Scale No.3 to 21700-CVR-008 Primary Mill Feed Conveyor (Process # DP-17).

d. At all times, including periods of startup, shutdown, and malfunction, the Permittee shall, install, maintain, and operate the Coarse Ore Dust Collection System, 23100-FAN-0001 (DC-7) and Coarse Ore Dust Collection System, 23100-FAN-0002 (DC-8), and to the extent practicable, to control the particulate matter emissions from the Primary Mill at the Clark site.

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

[Material Permit Conditions are indicated with underline and italic]

e. At all times, including periods of startup, shutdown, and malfunction, the Permittee shall, to the extent practicable, maintain, and operate 21300-DCD-006 Silo Discharge Dust Collection System (DC-6), Coarse Ore Dust Collection System, 23100-FAN-0001 (DC-7), and Coarse Ore Dust Collection System, 23100-FAN-0002 (DC-8) in a manner consistent with good air pollution control practices for minimizing particulate matter emissions.

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

[Material Permit Conditions are indicated with underline and italic]

f. The Permittee shall use pneumatic conveying for material transfer of cement from truck to silos at the paste plants.

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

[Material permit conditions are indicated by underline and italics]

- g. *At all times, including periods of startup, shutdown, and malfunction, the Permittee shall, to the extent practicable, maintain, and operate DC-PPBS1, DC-CPPBS1, DC-PPBS2, DC-CPPBS2, DC-PPBS3, DC-CPPBS3, DC-PPBS4, DC-CPPBS4, DC-PPM1M, DC-CPPM1M, DC-PPM2M, and DC-CPPM2M, in a manner consistent with good air pollution control practices for minimizing particulate matter emissions.*

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

[Material permit conditions are indicated by underline and italics]

- h. *At all times, including periods of startup, shutdown, and malfunction, the Permittee shall, install, maintain, and operate the Dust Collectors DC-PPBS1 and DC-CPPBS1, and to the extent practicable, to control the particulate matter emissions from the Paste Plant Binder Silo 1.*

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

[Material Permit Conditions are indicated with underline and italics]

- i. *At all times, including periods of startup, shutdown, and malfunction, the Permittee shall, install, maintain, and operate the Dust Collectors DC-PPBS2 and DC-CPPBS2, and to the extent practicable, to control the particulate matter emissions from the Paste Plant Binder Silo 2.*

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

[Material Permit Conditions are indicated with underline and italics]

- j. *At all times, including periods of startup, shutdown, and malfunction, the Permittee shall, install, maintain, and operate the Dust Collectors DC-PPBS3 and DC-CPPBS3, and to the extent practicable, to control the particulate matter emissions from the Paste Plant Binder Silo 3.*

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

[Material Permit Conditions are indicated with underline and italics]

- k. *At all times, including periods of startup, shutdown, and malfunction, the Permittee shall, install, maintain, and operate the Dust Collectors DC-PPBS4 and DC-CPPBS4, and to the extent practicable, to control the particulate matter emissions from the Paste Plant Binder Silo 4.*

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

[Material Permit Conditions are indicated with underline and italics]

- l. *At all times, including periods of startup, shutdown, and malfunction, the Permittee shall, install, maintain, and operate the Dust Collectors DC-PPM1M and DC-CPPM1M, and to the extent practicable, to control the particulate matter emissions from the Paste Plant Module 1 Mixer.*

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

[Material Permit Conditions are indicated with underline and italics]

- m. *At all times, including periods of startup, shutdown, and malfunction, the Permittee shall, install, maintain, and operate the Dust Collectors DC-PPM2M and DC-CPPM2M, and to the extent practicable, to control the particulate matter emissions from the Paste Plant Module 2 Mixer.*

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

[Material Permit Conditions are indicated with underline and italics]

4. Monitoring, Recordkeeping, and Reporting Requirements

a. The Permittee shall record the daily process rates and hours of operation of all material handling facilities.

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

b. The Permittee shall conduct the periodic opacity monitoring method specified in Condition II.B above on a weekly basis for all emission units subject to Condition III.A. For underground units, compliance with the opacity limit shall be determined at the vent raise, shaft, or decline.

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

c. The Permittee shall keep the records of the operating hours of the evaporator units.

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

5. Dust Collectors Voluntary Emission Limitations

a. *The Permittee shall not allow the emissions of PM₁₀ from the following processes to exceed 0.002 gr/dscf, as measured at the emission exhaust point to the atmosphere:*

[A.A.C. R 18-2-306.01.A and -331.A.3.a]

[Material Permit Conditions are indicated with underline and italic]

Emission Point Number	Description
DC-6	21300-DCD-006 Silo Discharge Dust Collection System

b. *The Permittee shall not allow the emissions of PM₁₀ from the following processes to exceed 0.001 gr/dscf, as measured at the emission exhaust point to the atmosphere:*

[A.A.C. R 18-2-306.01.A and -331.A.3.a]

[Material Permit Conditions are indicated with underline and italic]

Emission Point Number	Description
DC-7	Coarse Ore Dust Collection System, 23100-FAN-0001
DC-8	Coarse Ore Dust Collection System, 23100-FAN-0002

6. Performance Testing Requirements

a. The Permittee shall, within 60 days of achieving the maximum production rate but no later than 180 days of the initial startup, conduct performance tests for PM₁₀ on the stacks of all the pollution control devices in Condition III.A.5 above to demonstrate initial compliance with the emission limits in Condition III.A.5.

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

b. To demonstrate continuous compliance with the emission limits in Condition III.A.5, the Permittee shall conduct performance tests for PM₁₀ on the stacks of the pollution control devices in Condition III.A.5 a minimum of once per year.

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

- c. The Permittee shall use EPA Reference Method 201A in Appendix M to 40 CFR Part 51 to determine the PM₁₀ concentration. In lieu of Method 201A and with prior approval from ADEQ, EPA Reference Method 5 in Appendix A to 40 CFR Part 60 can be used. The Permittee may elect to assume all PM emissions measured by Method 5 are PM₁₀ to demonstrate compliance with the PM₁₀ emission limits in Condition III.A.5.

[A.A.C. R-18-306.A.3.d and -312]

- d. Each performance test shall consist of three separate runs. Each run shall be conducted for at least one hour, and the minimum sample volume shall be 30 dscf. The average of the three runs shall be used to determine compliance.

[A.A.C. R-18-306.A.3.d and -312]

- e. If the pollution control devices is in both Condition III.A.5 and Condition III.B.6, it may be tested a minimum of once per year.

[A.A.C. R-18-306.A.3]

7. Permit Shield

Compliance with the requirements of Condition III.A shall be deemed compliance with A.A.C. R18-2-702.B.3, 702.C, 721.B, 721.D, and 721.F.

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

B. Facilities Subject to the NSPS Requirements for Metallic Mineral Processing Plant Affected Facilities Under 40 CFR 60 Subpart LL

1. Applicability

The facilities subject to the requirements of this Condition III.B are identified in the last column of the Equipment List in Attachment "C".

2. Emission Limitations and Standards

a. Particulate Matter

On and after the date on which the performance test required to be conducted by 40 CFR 60.8 is completed, the Permittee shall not cause to be discharged into the atmosphere from an affected facility any stack emissions that contain particulate matter in excess of 0.05 grams per dry standard cubic meter (0.05 g/dscm).

[40 CFR 60.382(a)(1)]

b. Opacity

- (1) On and after the date on which the performance test required to be conducted by 40 CFR 60.8 is completed, the Permittee shall not cause to be discharged into the atmosphere from an affected facility any stack emissions that exhibit greater than 7% opacity.

unless the stack emissions are discharged from an affected facility using a wet scrubbing emission control device.

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

[Material Permit Conditions are indicated with underline and italic]

- (2) On and after the sixtieth day after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup, the Permittee shall not cause to be discharged into the atmosphere from an affected facility any process fugitive emissions that exhibit greater than 10% opacity.

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

[Material Permit Conditions are indicated with underline and italic]

3. Operational Limitations

At all times, including periods of startup, shutdown, and malfunction, the Permittee shall, to the extent practicable, maintain and operate any 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 Director 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)]

4. Air Pollution Control Requirements

- a. At all times, the Permittee shall, to the extent practicable, utilize wet suppression on the following emission units to minimize particulate matter emissions and comply with the applicable emission limitations and standards of Condition III.B.2 above. Wet suppression options include water sprays, surfactant use, water jets, foggers, inherent moisture content (including moisture from upstream water sprays), or other equivalent control methods. For purposes of this condition, "to the extent practicable" for purposes of wet suppression does not require addition of water to the extent that the controlled material adheres to conveyor belts or feeders or clogs transfer points.

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

[Material Permit Conditions are indicated with underline and italic]

- (1) Drop from 22210-CV-00002 Primary Screen Discharge Conveyor to 22210-CV-0001 Pebble Crusher Feed Conveyor (Process # DP-21);
- (2) Drop from 22210-CV-00001 Pebble Crusher Feed Conveyor to 22210-CH-00001 Pebble Crusher Feed/Bypass Chute (Process # DP-22);
- (3) Drop from 22210-CH-00001 Pebble Crusher Feed/Bypass Chute to 22210-BN-00001 Pebble Crusher Feed Bin (Process # DP-23);

- (4) Drop from 22210-BN-0001 Pebble Crusher Feed Bin to 22210-FE-00001 Pebble Crusher Feeder (Process # DP-24);
- (5) Drop from 22210-FE-00001 Pebble Crusher Feeder to 22210-CR-00001 Pebble Crusher (Process # DP-25);
- (6) Drop from 22210-CR-00001 Pebble Crusher to 22210-BN-00002 Pebble Crusher Product Surge Bin (Process # DP-26);
- (7) Drop from 22210-BN-00002 Pebble Crusher Product Surge Bin to 22210-FE-00002 Pebble Crusher Product Return Feeder (Process # DP-27);
- (8) Drop from 22210-FE-00002 Pebble Crusher Product Return Feeder to 21710-CV-00001 Primary Mill Feed Conveyor (Process # DP-28);
- (9) Transfer of Ore from Ore Stockpile to Loader (Process # DP-105);
- (10) Transfer of Ore Mined from Loader to Haul Truck (Process # DP-106);
- (11) Transfer from ROM Stockpile to Loader (Process # DP-107);
- (12) Ore Stockpile Drops (Process # DP-114); and
- (13) Run-of-mine (ROM) Stockpile Drops (Process # DP-115).

- b. At all times, the Permittee shall, to the extent practicable, utilize wet suppression on the following emission units and keep them partially enclosed to minimize particulate matter emissions and comply with the applicable emission limitations and standards of Condition III.B.2 above. Wet suppression options include water sprays, surfactant use, water jets, foggers, inherent moisture content (including moisture from upstream water sprays), or other equivalent control methods. For purposes of this condition, "to the extent practicable" for purposes of wet suppression does not require addition of water to the extent that the controlled material adheres to conveyor belts or feeders or clogs transfer points.

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

[Material Permit Conditions are indicated with underline and italic]

- (1) Drop of the crushed ore from the mine to the 21200-BIN-001 Mine Shaft Ore Bin (Process # DP-1);
- (2) Drop from 21200-BIN-001 Mine Shaft Ore Bin to 21200-FOR-001 Mine Shaft Ore Discharge Feeder (Process # DP-2);
- (3) Dump into Primary Crusher Feed Hopper (Process # DP-103).

c. At all times, the Permittee shall, to the extent practicable, keep the following emission unit partially enclosed to minimize particulate matter emissions and comply with the applicable emission limitations and standards of Condition III.B.2 above.

[A.A.C. R18-2-306.01.A]

(1) Drop from Coarse Ore Feed Conveyor to the SAG Mill Feed Chute (23200-CHU-0002) (Process # DP-104).

d. At all times, including periods of startup, shutdown, and malfunction, the Permittee shall, install, maintain, and operate the 21200-DCD-001 Coarse Ore Dust Collection System (DC-1), and to the extent practicable, to control the particulate matter emissions from 21210-CV-0003 Main Shaft Outfeed Conveyor and the following processes:

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

[Material Permit Conditions are indicated with underline and italics]

(1) Drop from 21200-FOR-001 Mine Shaft Ore Discharge Feeder to 21200-GAT-001 Mine Shaft Diverter Gate (Process # DP-3);

(2) Drop from 21200-GAT-001 Mine Shaft Discharge Gate to 21200-CVR-001 Coarse Ore Overland Conveyor (Process # DP-4); and

(3) Drop from 21200-CVR-001 Coarse Ore Overland Conveyor to 21300-CHU-001 3-Way Shuttle Chute (Process # DP-6).

e. At all times, including periods of startup, shutdown, and malfunction, the Permittee shall, install, maintain, and operate the 21210-CX-00001 Coarse Ore Overland Dust Collector (DC-2), and to the extent practicable, to control the particulate matter emissions from 21210-CV-00001 Coarse Ore Overland Conveyor.

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

[Material Permit Conditions are indicated with underline and italics]

f. At all times, including periods of startup, shutdown, and malfunction, the Permittee shall, install, maintain, and operate the 21300-DCD-003 Coarse Ore Silo Collection System (DC-3), and to the extent practicable, to control the particulate matter emissions from the following process:

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

[Material Permit Conditions are indicated with underline and italics]

(1) Drop from 21300-CVB-005 Coarse Ore Silo No. 1 Feed Conveyor to 21500-SLO-001 Coarse Ore Silo No. 1 (Process # DP-9).

g. At all times, including periods of startup, shutdown, and malfunction, the Permittee shall, install, maintain, and operate the 21300-DCD-004 Coarse Ore Silo Collection System (DC-4), and to the extent practicable, to control the particulate matter emissions from the following processes:

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

[Material Permit Conditions are indicated with underline and italics]

- (1) Drop from 21300-CHU-001 3-Way Shuttle Chute to 21300-CVB-005 Coarse Ore Silo No. 1 Feed Conveyor (Process # DP-7);
- (2) Drop from 21300-CVB-006 Coarse Ore Silo No. 2 Feed Conveyor to 21500-SLO-002 Coarse Ore Silo No. 2 (Process # DP-10).
- h. At all times, including periods of startup, shutdown, and malfunction, the Permittee shall, install, maintain, and operate the 21300-DCD-005 Coarse Ore Silo Collection System (DC-5), and to the extent practicable, to control the particulate matter emissions from the following processes:
 [A.A.C. R18-2-306.01.A and -331.A.3.d and e]
 [Material Permit Conditions are indicated with underline and italics]
- (1) Drop from 21300-CHU-001 3-Way Shuttle Chute to 21300-CVB-006 Coarse Ore Silo No. 2 Feed Conveyor (Process # DP-8); and
- (2) Drop from 21300-CHU-001 3-Way Shuttle Chute to 21500-SLO-003 Coarse Ore Silo No. 3 (Process # DP-11).
- i. At all times, including periods of startup, shutdown, and malfunction, the Permittee shall, install, maintain, and operate the 21300-DCD-005 Coarse Ore Silo Collection System (DC-11), and to the extent practicable, to control the particulate matter emissions from the entrance to 21500-SLO-004 Coarse Ore Silo No. 4.
 [A.A.C. R18-2-306.01.A and -331.A.3.d and e]
 [Material Permit Conditions are indicated with underline and italics]
- j. At all times, including periods of startup, shutdown, and malfunction, the Permittee shall, install, maintain, and operate the 21300-DCD-006 Silo Discharge Dust Collection System (DC-6), and to the extent practicable, to control the particulate matter emissions from the following processes:
 [A.A.C. R18-2-306.01.A and -331.A.3.d and e]
 [Material Permit Conditions are indicated with underline and italics]
- (1) Drop from 21700-FOR-002 Coarse Ore Silo Discharge Feeder No. 1 to 21700-SCB-002 Discharge Feeder Belt Scale No. 1 (Process # DP-12);
- (2) Drop from 21700-FOR-004 Coarse Ore Silo Discharge Feeder No. 2 to 21700-SCB-004 Discharge Feeder Belt Scale No. 2 (Process # DP-13); and
- (3) Drop from 21700-FOR-006 Coarse Ore Silo Discharge Feeder No. 3 to 21700-SCB-006 Discharge Feeder Belt Scale No. 3 (Process # DP-14).
- k. At all times, including periods of startup, shutdown, and malfunction, the Permittee shall, install, maintain, and operate the Coarse Ore Dust Collection System, 23100-FAN-0001 (DC-7) and Coarse Ore Dust Collection System, 23100-FAN-0002 (DC-8), and to the extent

practicable, to control the particulate matter emissions from the Crusher, Screen, and Coarse Ore Silo at the Clark Site.

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

[Material Permit Conditions are indicated with underline and italics]

- l. At all times, including periods of startup, shutdown, and malfunction, the Permittee shall, install, maintain, and operate the 23100-DCD-0005 Coarse Ore Dust Collection System (DC-10), and to the extent practicable, to control the particulate matter emissions from the Coarse Ore Silo at the Clark Site.

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

[Material Permit Conditions are indicated with underline and italics]

- m. At all times, including periods of startup, shutdown, and malfunction, the Permittee shall, to the extent practicable, maintain, and operate the following pollution control devices in a manner consistent with good air pollution control practices for minimizing particulate matter emissions:

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

[Material permit conditions are indicated by underline and italics]

- (1) 21200-DCD-001 Coarse Ore Dust Collection System (DC-1);
- (2) 21300-DCD-002 Coarse Ore Silo Collection System (DC-2);
- (3) 21300-DCD-003 Coarse Ore Silo Collection System (DC-3);
- (4) 21300-DCD-004 Coarse Ore Silo Collection System (DC-4);
- (5) 21300-DCD-005 Coarse Ore Silo Collection System (DC-5);
- (6) 21300-DCD-006 Silo Discharge Dust Collection System (DC-6);
- (7) Coarse Ore Dust Collection System, 23100-FAN-0001 (DC-7);
- (8) Coarse Ore Dust Collection System, 23100-FAN-0002 (DC-8);
- (9) 23100-DCD-0005 Coarse Ore Dust Collection System (DC-10);
and
- (10) 21300-DCD-005 Coarse Ore Silo Collection System (DC-11).

5. Monitoring, Recordkeeping, and Reporting Requirements

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

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

[Material permit conditions are indicated by underline and italics]

- b. *The Permittee shall install, calibrate, maintain, and operate a monitoring device for the continuous measurement of the scrubbing liquid flow rate to a wet scrubber for any affected facility using any type of wet scrubbing emission control device. The monitoring device shall be certified by the manufacturer to be accurate within ±5% of design scrubbing liquid flow rate and shall be calibrated on at least an annual basis in accordance with manufacturer's instructions.*

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

[Material permit conditions are indicated by underline and italics]

- c. During the initial performance test of a wet scrubber, and at least weekly thereafter, the Permittee shall record the measurements of both the change in pressure of the gas stream across the scrubber and the scrubbing liquid flow rate.

[40 CFR 60.385(b)]

- d. After the initial performance test of a wet scrubber, the Permittee shall submit semiannual reports to the Director of occurrences when the measurements of the scrubber pressure loss (or gain) or liquid flow rate differ by more than ±30 percent from the average obtained during the most recent performance test.

[40 CFR 60.385(c)]

- e. The reports required under Condition III.B.5.d shall be postmarked within 30 days following the end of the second and fourth calendar quarters.

[40 CFR 60.385(d)]

- f. The Permittee shall conduct the periodic opacity monitoring method specified in Condition II.B above on a weekly basis for all emission units subject to an opacity standard in Condition III.B.

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

6. Dust Collectors Voluntary Emission Limitations

- a. *The Permittee shall not allow the emissions of PM₁₀ from the following processes to exceed 0.002 gr/dscf, as measured at the emission exhaust point to the atmosphere:*

[A.A.C. R 18-2-306.01.A and -331.A.3.a]

[Material permit conditions are indicated by underline and italics]

Emission Point Number	Description
DC-1	21210-CX-00002 Main Shaft Ore Discharge Dust Collector
DC-2	21210-CX-00001 Coarse Ore Overland Dust Collector
DC-3	21210-CX-00004 Silo No. 1 Feed Conveyor Dust Collector
DC-4	21300-DCD-004 Coarse Ore Silo Collection System collecting dust from entrance to 21500-SLO-002 Coarse Ore Silo No. 2
DC-5	21300-DCD-005 Coarse Ore Silo Collection System
DC-6	21300-DCD-006 Silo Discharge Dust Collection System

DC-11	21300-DCD-005 Coarse Ore Silo Collection System
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- b. *The Permittee shall not allow the emissions of PM₁₀ from the following processes to exceed 0.001 gr/dscf, as measured at the emission exhaust point to the atmosphere:*

[A.A.C. R 18-2-306.01.A and -331.A.3.a]

[Material permit conditions are indicated by underline and italics]

Emission Point Number	Description
DC-7	Coarse Ore Dust Collection System, 23100-FAN-0001
DC-8	Coarse Ore Dust Collection System, 23100-FAN-0002
DC-10	Coarse Ore Dust Collection System, 23100-DCD-0005

7. Performance Testing Requirements

- a. To demonstrate compliance with Condition III.B.2.a:

- (1) Within 60 days after achieving the maximum production rate but not later than 180 days after initial startup, the Permittee shall conduct initial performance tests for all new affected facilities as specified in Condition III.B.7.a(2) through Condition III.B.7.a(6) below.

[40 CFR 60.8, 60.11]

- (2) For the purpose of demonstrating initial compliance with Condition III.B.2.a, the Permittee shall conduct a performance test and submit to the Director a written report of the results of the test as specified in 40 CFR 60.8(a).

[40 CFR 60.8, 60.385(a)]

- (3) For the purpose of demonstrating initial compliance with Condition III.B.2.b(1), opacity observations shall be conducted concurrently with the performance tests required in Condition III.B.7.a(2) except as allowed in 40 CFR 60.11(e)(1). The minimum total time of observations shall be 3 hours (30 6-minute averages). The Permittee shall report to the Director the opacity results along with the results of the initial performance test required by Condition III.B.7.a(2).

[40 CFR 60.11]

- (4) For the purpose of demonstrating initial compliance with Condition III.B.2.b(2), opacity observations shall be conducted within 60 days after achieving the maximum production rate at which the affected facility will be operated but no later than 180 days after initial startup of the facility. The minimum total time of observations shall be 3 hours (30 6-minute averages). The Permittee shall report to the Director the opacity results as specified in 40 CFR 60.8(a).

[40 CFR 60.8, 60.11]

- (5) 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 40 CFR 60 Subpart LL, except as provided in 40 CFR 60.8(b).
[40 CFR 60.386(a)]
- (6) The Permittee shall determine compliance with the particulate matter standards in Condition III.B.2 as follows:
[40 CFR 60.386(b)]
- (a) Method 5 or 17 shall be used to determine the particulate matter concentration. The sample volume for each run shall be at least 1.70 dscm (60 dscf). The sampling probe and filter holder of Method 5 may be operated without heaters if the gas stream being sampled is at ambient temperature. For gas streams above ambient temperature, the Method 5 sampling train shall be operated with a probe and filter temperature slightly above the effluent temperature (up to a maximum filter temperature of 121 °C (250 °F)) in order to prevent water condensation on the filter.
- (b) 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. A single visible emission observer may conduct visible emission observations for up to three fugitive, stack, or vent emission points within a 15-second interval. This option is subject to the following limitations:
- (i) No more than three emission points are read concurrently;
- (ii) All three emission points must be within a 70° viewing sector or angle in front of the observer such that the proper sun position can be maintained for all three points; and
- (iii) If an opacity reading for any one of the three emission points is within 5 percent opacity of the application standard, then the observer must stop taking readings for the other two points and continue reading just that single point.
- (7) To demonstrate continued compliance with the emission limitation in Condition III.B.2.a, the Permittee shall conduct

annual performance tests according to III.B.7.a(6) a minimum of once per year.

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

- (8) To comply with Condition III.B.5.d, the Permittee shall use the monitoring devices in Condition III.B.5.a and Condition III.B.5.b to determine the pressure loss of the gas stream through the scrubber and scrubbing liquid flow rate at any time during each particulate matter performance test run, and the average of the three determinations shall be computed.

[40 CFR 60.386(c)]

b. To demonstrate compliance with Condition III.B.6:

- (1) The Permittee shall, within 60 days of achieving the maximum production rate but no later than 180 days of initial startup, conduct performance tests for PM₁₀ on the stacks of all the pollution control devices in Condition III.B.6 above to demonstrate initial compliance with the emission limits in Condition III.B.6.

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

- (2) To demonstrate continuous compliance with the emission limits in Condition III.B.6, the Permittee shall conduct performance tests for PM₁₀ on the stacks of the pollution control devices in Condition III.B.6 a minimum of once per year.

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

- (3) The Permittee shall use EPA Reference Method 201A in Appendix M to 40 CFR Part 51 to determine the PM₁₀ concentration. In lieu of Method 201A and with prior approval from ADEQ, EPA Reference Method 5 in Appendix A to 40 CFR Part 60 can be used. The Permittee may elect to assume all PM emissions measured by Method 5 are PM₁₀ to demonstrate compliance with the PM₁₀ emission limits in Condition III.A.5.

[A.A.C. R-18-306.A.3.c]

- (4) Each performance test shall consist of three separate runs. Each run shall be conducted for at least one hour, and the minimum sample volume shall be 30 dscf. The average of the three runs shall be used to determine compliance.

[A.A.C. R-18-306.A.3.c]

- (5) If the pollution control devices is in both Condition III.A.5 and Condition III.B.6, it may be tested a minimum of once per year.

[A.A.C. R-18-306.A.3.c]

8. Permit Shield

Compliance with the requirements of Condition III.B shall be deemed compliance with A.A.C. R18-2-312, 40 CFR 60.8, 60.11, 60.382(a)(1), 60.382(a)(2),

60.382(b), 60.384(a), 60.384(b), 60.385(a), 60.385(b), 60.385(c), 60.385(d),
60.386(a), 60.386(b), and 60.386(c).

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

IV. INTERNAL COMBUSTION ENGINES (ICES)

A. New Non-Emergency Diesel Engines Subject to New Source Performance Standards (NSPS) Subpart III Requirements

1. Applicability

This Section applies to the new non-emergency compression ignition (CI) internal combustion engines (ICES) as identified in the last column of the Equipment List in Attachment “C”.

2. General Requirement

[A.A.C. R18-2-306.01.A]

a. The Permittee shall, for engines indicated in Attachment “C”, only use Tier 4 diesel ICES.

b. The following engines shall only operate 500 hours per year, and operate intermittently the same as traditional emergency engines and only for backup or emergency:

(1) Each CAT C175 engine rated 3,000 ekW.

3. Fuel Requirements

The Permittee shall use diesel fuel that meets the following requirements of 40 CFR 1090.305 for nonroad diesel fuel:

[40 CFR 60.4207(b) and 40 CFR 1090.305]

a. Maximum sulfur content of 15 ppm; and

b. A minimum cetane index of 40 or a maximum aromatic content of 35 volume percent.

4. Emission Limitations and Standards

a. For non-emergency stationary CI ICE with a maximum engine power less than or equal to 2,237 kilowatt (KW) (3,000 horsepower (HP)) and a displacement of less than 10 liters per cylinder, the Permittee shall comply with the certification emission standards for new nonroad CI engines in 40 CFR 1039.101, 1039.102, 1039.104, 1039.105, 1039.107, and 1039.115 and 40 CFR part 1039, appendix I, as applicable, for all pollutants, for the same model year and maximum engine power.

[40 CFR 60.4201(a) and 60.4204(b)]

b. For non-emergency stationary CI ICES with a displacement of less than 30 liters per cylinder, when conducting performance tests in-use the Permittee

shall meet the not-to-exceed (NTE) standards as indicated in Condition IV.A.7.a of this section.

[40 CFR 60.4204(d)]

5. Operating Requirements

a. The Permittee shall operate and maintain the stationary CI ICEs that achieve the emission standards as required in this Section over the entire life of the engine.

[40 CFR 60.4206]

b. For a stationary CI ICE equipped with a diesel particulate filter to comply with the emission standards in Condition IV.A.4, the diesel particulate filter shall be installed with a backpressure monitor that notifies the Permittee when the high backpressure limit of the engine is approached.

[40 CFR 60.4209(b)]

c. Except as permitted under Condition IV.A.6.b, the Permittee shall:

[40 CFR 60.4211(a)]

(1) Operate and maintain the stationary CI ICEs and control device according to the manufacturer's emission-related written instructions;

(2) Change only those emission-related settings that are permitted by the manufacturer; and

(3) Meet the requirements of 40 CFR Part 1068, as they apply.

6. Compliance Requirements

a. For non-emergency stationary CI ICEs with a displacement of less than 30 liters per cylinder, the Permittee shall comply with the emissions standards in Condition IV.A.4.a by purchasing an engine certified to the emission standards in Condition IV.A.4.a. Except as permitted under Condition IV.A.6.b, the stationary CI ICEs shall be installed and configured according to the manufacturer's emission-related specifications.

[40 CFR 60.4211(c)]

b. If the Permittee does not install, configure, operate, and maintain the stationary CI ICEs and control device according to the manufacturer's emission-related written instructions, or if the Permittee changes emission-related settings in a way that is not permitted by the manufacturer, the Permittee shall demonstrate compliance as follows:

[40 CFR 60.4211(g)]

(1) For the stationary CI ICEs with maximum engine power less than 100 HP, the Permittee shall keep a maintenance plan and records of conducted maintenance to demonstrate compliance and shall, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for

minimizing emissions. In addition, if the Permittee does not install and configure the engine and control device according to the manufacturer's emission-related written instructions, or if the Permittee changes the emission-related settings in a way that is not permitted by the manufacturer, the Permittee shall conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of such action.

[40 CFR 60.4211(g)(1)]

- (2) For the stationary CI ICES greater than or equal to 100 HP and less than or equal to 500 HP, the Permittee shall keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, the Permittee shall conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of startup, or within 1 year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within 1 year after the Permittee changes emission-related settings in a way that is not permitted by the manufacturer.

[40 CFR 60.4211(g)(2)]

- (3) For the stationary CI ICES greater than 500 HP, the Permittee shall keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, the Permittee shall conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of startup, or within 1 year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within 1 year after you change emission-related settings in a way that is not permitted by the manufacturer. The Permittee shall conduct subsequent performance testing every 8,760 hours of engine operation or 3 years, whichever comes first, thereafter to demonstrate compliance with the applicable emission standards.

[40 CFR 60.4211(g)(3)]

7. Testing Requirements

- a. Unless the Permittee demonstrates compliance via Condition IV.A.6.a, the Permittee shall demonstrate compliance for stationary CI ICES with a displacement of less than 30 liters per cylinder by conducting performance testing as follows:

[40 CFR 60.4212]

- (1) The performance test shall be conducted according to the in-use testing procedures in 40 CFR part 1039, subpart F, for stationary CI ICEs with a displacement of less than 10 liters per cylinder, and according to 40 CFR part 1042, subpart F, for stationary CI ICEs with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder. Alternatively, stationary CI ICEs that are complying with Tier 2 or Tier 3 emission standards as described in 40 CFR part 1039, appendix I, or with Tier 2 emission standards as described in 40 CFR part 1042, appendix I, may follow the testing procedures specified in 40 CFR 60.4213, as appropriate.

[40 CFR 60.4212(a)]

- (2) Exhaust emissions from stationary CI ICEs that are complying with the emission standards for new CI engines in 40 CFR part 1039 shall not exceed the NTE standards for the same model year and maximum engine power as required in 40 CFR 1039.101(e) and 40 CFR 1039.102(g)(1), except as specified in 40 CFR 1039.104(d). This requirement starts when NTE requirements take effect for nonroad diesel engines under 40 CFR part 1039.

[40 CFR 60.4212(b)]

- (3) Exhaust emissions from stationary CI ICEs subject to Tier 2 or Tier 3 emission standards as described in 40 CFR part 1039, appendix I, or Tier 2 emission standards as described in 40 CFR part 1042, appendix I, shall not exceed the NTE numerical requirements, rounded to the same number of decimal places as the applicable standard, determined from the following equation:

$$NTE \text{ requirement for each pollutant} = (1.25) \times (STD)$$

Where:

STD = The standard specified for that pollutant in 40 CFR part 1039 or 1042, as applicable.

[40 CFR 60.4212(c)]

- (4) Exhaust emissions from stationary CI ICEs that are complying with the emission standards for new CI ICEs in 40 CFR part 1042 shall not exceed the NTE standards for the same model year and maximum engine power as required in 40 CFR 1042.101(c).

[40 CFR 60.4212(e)]

8. Notification, Reporting, and Recordkeeping Requirements

- a. For the non-emergency stationary CI ICEs that are greater than 2,237 KW (3,000 HP), or with a displacement of greater than or equal to 10 liters per cylinder, the Permittee shall:

[40 CFR 60.4214(a)]

- (1) Submit an initial notification as required in 40 CFR 60.7(a)(1). The notification must include the following information:
[40 CFR 60.4214(a)(1)]
 - (a) Name and address of the owner or operator;
 - (b) The address of the affected source;
 - (c) Engine information including make, model, engine family, serial number, model year, maximum engine power, and engine displacement;
 - (d) Emission control equipment; and
 - (e) Fuel used.

 - (2) Keep records of the following information:
[40 CFR 60.4214(a)(2)]
 - (a) All notifications submitted to comply with this subpart and all documentation supporting any notification.
 - (b) Maintenance conducted on the engine.
 - (c) If the stationary CI ICE is a certified engine, documentation from the manufacturer that the engine is certified to meet the emission standards.
 - (d) If the stationary CI ICE is not a certified engine, documentation that the engine meets the emission standards.
- b. If the stationary CI ICE is equipped with a diesel particulate filter, the Permittee shall keep records of any corrective action taken after the backpressure monitor has notified the Permittee that the high backpressure limit of the engine is approached.

[40 CFR 60.4214(c)]

9. Permit Shield

Compliance with the requirements of Condition IV.A shall be deemed compliance with 40 CFR 60.4207(b), 40 CFR 60.4201(a), 40 CFR 60.4204(b), 40 CFR 60.4204(c)(3, 4), 40 CFR 60.4204(d), 40 CFR 60.4206, 40 CFR 60.4209(b), 40 CFR 60.4211(a, c, d), 40 CFR 60.4211(g), 40 CFR 60.4212, 40 CFR 60.4213, and 40 CFR 60.4214(a, c).

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

B. New Non-Emergency Natural Gas Engines Subject to New Source Performance Standards (NSPS) Subpart JJJJ Requirements

1. Applicability

This Section applies to the natural gas spark ignition (SI) internal combustion engines (ICEs) as identified in the last column of the Equipment List in Attachment “C”.

2. General Requirements

- a. The Permittee shall install selective catalytic reduction (SCR) and oxidation catalysts (OxCat) on the natural gas engines and interlock all engines to ensure that the associated SCR and OxCat will operate at all times the engines are above the operating temperature specified for each control device by the engine vendor, including periods of startup, shutdown and malfunction.

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

[Material Permit Conditions are indicated with underline and italics]

- b. Except during startup and shutdown, the Permittee shall operate the natural gas engines only from 75% and up to 100% load, including 100% load.

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

[Material Permit Conditions are indicated with underline and italics]

3. Emission Standards

The Permittee shall comply with the following emission standards over the entire life of the engine:

[40 CFR 60.4233(e), 40 CFR 60.4234 and Table 1 to 40 CFR Part 60 Subpart JJJJ]

Pollutants	Emission Standards (g/HP-hr)
NO _x	1.0
CO	2.0
VOC	0.7

For purposes of this standard, when calculating emissions of volatile organic compounds, emissions of formaldehyde should not be included.

[Table 1 to 40 CFR Part 60 Subpart JJJJ]

4. Compliance Requirements

- a. The Permittee shall demonstrate compliance according to one of the methods specified below:

[40 CFR 60.4243(b)]

- (1) Purchasing an engine certified according to procedures specified in 40 CFR Part 60 Subpart JJJJ, for the same model year and demonstrating compliance according to one of the methods specified in 40 CFR 60.4243(a).
- (2) Purchasing a non-certified engine and demonstrating compliance with the emission standards specified in Condition IV.B.3 and according to the requirements specified in Condition IV.B.5.c, as applicable, and according to the following requirements:

- (a) The Permittee shall keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, the Permittee shall conduct an initial performance test and conduct subsequent performance testing every 8,760 hours or 3 years, whichever comes first, thereafter to demonstrate compliance.
- b. The Permittee may operate their engines using propane for a maximum of 100 hours per year as an alternative fuel solely during emergency operations, but must keep records of such use. If propane is used for more than 100 hours per year in an engine that is not certified to the emission standards when using propane, the Permittee shall conduct a performance test to demonstrate compliance with the emission standards of 40 CFR 60.4233.
[40 CFR 60.4243(e)]
- c. It is expected that air-to-fuel ratio controllers will be used with the operation of three-way catalysts/non-selective catalytic reduction. The AFR controller shall be maintained and operated appropriately in order to ensure proper operation of the engine and control device to minimize emissions at all times.
[40 CFR 60.4243(g)]
- d. The Permittee shall program interlocks on the natural gas engines to ensure they operate at 75% to 100% load except during startup and shutdown.
[A.A.C. R18-2-306.01 and -331.A.3.a]
5. Testing Requirements
- a. If the Permittee elects to demonstrate initial compliance with the emission limits in Condition IV.B.3 via Condition IV.B.4.a(2) above, within 60 days of achieving the maximum production rate but no later than 180 days of initial startup, the Permittee shall conduct performance tests on the ICEs.
[A.A.C. R18-2-306.A.3.c and -312]
- b. If the Permittee elects to demonstrate continuous compliance with the emission limits in Condition IV.B.3 via Condition IV.B.4.a(2) above, the Permittee shall conduct performance tests consistent with Condition IV.B.4.a(2)(a) on the ICEs.
[A.A.C. R18-2-306.A.3.c and -312]
- c. The Permittee shall follow the following procedures when conducting a performance test:
[40 CFR 60.4244]
- (1) Each performance test shall be conducted within 10 percent of 100 percent peak (or the highest achievable) load and according to the

requirements in 40 CFR 60.8 and under the specific conditions that are specified by Table 2 to 40 CFR Part 60 Subpart JJJJ.

[40 CFR 60.4244(a)]

- (2) The Permittee shall conduct three separate test runs for each performance test required in this section, as specified in 40 CFR 60.8(f). Each test run shall be conducted within 10 percent of 100 percent peak (or the highest achievable) load and last at least 1 hour.

[40 CFR 60.4244(c)]

- (3) To determine compliance with the NO_x mass per unit output emission limitation, the Permittee shall convert the concentration of NO_x in the engine exhaust using the following equation:

$$ER = \frac{C_d \times 1.912 \times 10^{-3} \times Q \times T}{HP - hr}$$

Where:

ER = Emission rate of NO_x in g/HP-hr.

C_d = Measured NO_x concentration in parts per million by volume (ppmv).

1.912×10^{-3} = Conversion constant for ppm NO_x to grams per standard cubic meter at 20 degrees Celsius.

Q = Stack gas volumetric flow rate, in standard cubic meter per hour, dry basis.

T = Time of test run, in hours.

HP - hr = Brake work of the engine, horsepower-hour (HP-hr).
[40 CFR 60.4244(d)]

- (4) To determine compliance with the CO mass per unit output emission limitation, the Permittee shall convert the concentration of CO in the engine exhaust using the following equation:

$$ER = \frac{C_d \times 1.164 \times 10^{-3} \times Q \times T}{HP - hr}$$

Where:

ER = Emission rate of CO in g/HP-hr.

C_d = Measured CO concentration in ppmv.

1.164×10^{-3} = Conversion constant for ppm CO to grams per standard cubic meter at 20 degrees Celsius.

Q = Stack gas volumetric flow rate, in standard cubic meters per hour, dry basis.

T = Time of test run, in hours.

$HP - hr$ = Brake work of the engine, in HP-hr.
 [40 CFR 60.4244(e)]

- (5) For purposes of this section, when calculating emissions of VOC, emissions of formaldehyde shall not be included. To determine compliance with the VOC mass per unit output emission limitation, the Permittee shall convert the concentration of VOC in the engine exhaust using the following equation:

$$ER = \frac{C_d \times 1.833 \times 10^{-3} \times Q \times T}{HP - hr}$$

Where:

ER = Emission rate of VOC in g/HP-hr.

C_d = VOC concentration measured as propane in ppmv.

1.833×10^{-3} = Conversion constant for ppm VOC measured as propane, to grams per standard cubic meter at 20 degrees Celsius.

Q = Stack gas volumetric flow rate, in standard cubic meters per hour, dry basis.

T = Time of test run, in hours.

$HP - hr$ = Brake work of the engine, in HP-hr.
 [40 CFR 60.4244(f)]

- (6) If the Permittee chooses to measure VOC emissions using either Method 18 of 40 CFR Part 60, appendix A, or Method 320 of 40 CFR Part 63, appendix A, then it has the option of correcting the measured VOC emissions to account for the potential differences in measured values between these methods and Method 25A. The results from Method 18 and Method 320 can be corrected for response factor differences using the following two equations:

$$RF_i = \frac{C_{Mi}}{C_{Ai}}$$

Where:

RF_i = Response factor of compound i when measured with EPA Method 25A.

C_{Mi} = Measured concentration of compound i in ppmv as carbon.

C_{Ai} = True concentration of compound i in ppmv as carbon.

$$C_{icorr} = RF_i \times C_{imeas}$$

Where:

C_{icorr} = Concentration of compound i corrected to the value that would have been measured by EPA Method 25A, ppmv as carbon.

C_{imeas} = Concentration of compound i measured by EPA Method 320, ppmv as carbon.

- (7) The corrected VOC concentration can then be placed on a propane basis using the following equation:

$$C_{Peq} = 0.6098 \times C_{icorr}$$

Where:

C_{Peq} = Concentration of compound i in mg of propane equivalent per DSCM.

[40 CFR 60.4244(g)]

6. Notification, reporting, and recordkeeping requirements

- a. The Permittee shall keep records of the following information:

[40 CFR 60.4245(a)]

- (1) All notifications submitted to comply with this section and all documentation supporting any notification.
- (2) Maintenance conducted on the engine.
- (3) If the stationary SI internal combustion engine is a certified engine, documentation from the manufacturer that the engine is certified to meet the emission standards and information as required in 40 CFR Parts 1048, 1054, and 1060, as applicable.
- (4) If the stationary SI internal combustion engine is not a certified engine or is a certified engine operating in a non-certified manner and subject to 40 CFR 60.4243(a)(2), documentation that the engine meets the emission standards.

- b. If the engines have not been certified by an engine manufacturer to meet the emission standards in 40 CFR 60.4231, the Permittee shall submit an

initial notification as required in 40 CFR 60.7(a)(1). The notification shall include the following information:

[40 CFR 60.4245(c)]

- (1) Name and address of the owner or operator;
- (2) The address of the affected source;
- (3) Engine information including make, model, engine family, serial number, model year, maximum engine power, and engine displacement;
- (4) Emission control equipment; and
- (5) Fuel used.

- c. The Permittee shall submit a copy of each performance test as conducted in Condition IV.B.5 within 60 days after the test has been completed. Performance test reports using EPA Method 18, EPA Method 320, or ASTM D6348-03 (incorporated by reference - see 40 CFR 60.17) to measure VOC require reporting of all QA/QC data. For Method 18, report results from sections 8.4 and 11.1.1.4; for Method 320, report results from sections 8.6.2, 9.0, and 13.0; and for ASTM D6348-03 report results of all QA/QC procedures in Annexes 1-7.

[40 CFR 60.4245(d)]

7. Permit Shield

Compliance with the requirements of Condition IV.B shall be deemed compliance with 40 CFR 60.4233(e) and 40 CFR 60.4234, 40 CFR 60.4243(b, e, g), 40 CFR 60.4244(a, c-g), 40 CFR 60.4245(a, c, d).

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

C. New non-Emergency Diesel Engines, and New Non-Emergency Natural Gas Engines Subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP) Subpart ZZZZ Requirements

1. Applicability

For the new non-emergency diesel engines with site rating of more than 500 brake HP, and new non-emergency natural gas engines, if operating under Primary Operating Scenario (POS) or Alternate Operating Scenario No. 2 (AOS 2) – Tailing Storage Facility 2 (TSF2) Alternative, the Permittee shall comply with the requirements in Condition IV.C; if operating under Alternate Operating Scenario No. 1 (AOS 1) – Line Power Alternative, the Permittee may comply with Condition IV.C by meeting the requirements in Condition IV.A, or Condition IV.B. For the new non-emergency diesel engines with a site rating of equal to or less than 500 brake HP, the Permittee may comply with Condition IV.C by meeting the requirements in Condition IV.A under all the operating scenarios.

[40 CFR 63.6590(c)]

2. Emission Limitations for New Non-Emergency Diesel Engines with Site Rating of more than 500 Brake HP

The Permittee shall comply with the following emission limitations for the engines at 100 percent load plus or minus 10 percent:

[40 CFR 63.6600(b), Table 2a to 40 CFR Part 63 Subpart ZZZZ]

- a. Reduce CO emissions by 70 percent or more; or
- b. Limit concentration of formaldehyde in the engine exhaust to 580 ppbvd or less at 15 percent O₂.

3. Emission Limitations for New Non-Emergency Natural Gas Engines

The Permittee shall comply with the following emission limitations for the engines at 100 percent load plus or minus 10 percent:

[40 CFR 63.6600(b), Table 2a to 40 CFR Part 63 Subpart ZZZZ]

- a. Reduce CO emissions by 93 percent or more; or
- b. Limit concentration of formaldehyde in the engine exhaust to 14 ppmvd or less at 15 percent O₂.

4. Operating Limitations for New Non-Emergency Natural Gas Engines and New Non-Emergency Diesel Engines with Site Rating of more than 500 Brake HP

The Permittee shall comply with the following operating limitations:

[40 CFR 63.6600(b), Table 2b to 40 CFR Part 63 Subpart ZZZZ]

- a. Maintain the catalyst so that the pressure drop across the catalyst does not change by more than 2 inches of water at 100 percent load plus or minus 10 percent from the pressure drop across the catalyst that was measured during the initial performance test; and
- b. Maintain the temperature of the engine exhaust so that the catalyst inlet temperature is greater than or equal to 450 °F and less than or equal to 1350 °F. The Permittee can petition the EPA Administrator pursuant to the requirements of 40 CFR 63.8(f) for a different temperature range.

5. Compliance Requirements for New Non-Emergency Natural Gas Engines and New Non-Emergency Diesel Engines with Site Rating of more than 500 Brake HP

- a. The Permittee shall comply with the emission limitations and operating limitations in this section upon startup of the engines.

[40 CFR 63.6595(a)(3)]

- b. The Permittee shall be in compliance with the emission limitations, operating limitations, and other requirements in this section at all times.

[40 CFR 63.6605(a)]

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

[40 CFR 63.6605(b)]

6. Testing Requirements for New Non-Emergency Natural Gas Engines and New Non-Emergency Diesel Engines with Site Rating of more than 500 Brake HP

a. Initial Performance Test

- (1) The Permittee shall conduct the initial performance test within 180 days upon startup of the engines and according to the provisions in 40 CFR 63.7(a)(2).

[40 CFR 63.6610(a)]

- (2) To demonstrate initial compliance with Condition IV.C.2.a and IV.C.3.a, the Permittee shall:

[40 CFR 63.6610(a), Table 4 to 40 CFR Part 63 Subpart ZZZZ]

- (a) Select the sampling port location and the number/location of traverse points at the inlet and outlet of the control device. For CO and O₂ measurement, ducts ≤ 6 inches in diameter may be sampled at a single point located at the duct centroid and ducts > 6 and ≤ 12 inches in diameter may be sampled at 3 traverse points located at 16.7, 50.0, and 83.3% of the measurement line ('3-point long line'). If the duct is >12 inches in diameter and the sampling port location meets the two and half-diameter criterion of Section 11.1.1 of Method 1 of 40 CFR Part 60, appendix A-1, the duct may be sampled at '3-point long line'; otherwise, conduct the stratification testing and select sampling points according to Section 8.1.2 of Method 7E of 40 CFR Part 60, Appendix A-4.
- (b) Measure the O₂ at the inlet and outlet of the control device using Method 3 or 3A or 3B of 40 CFR Part 60, appendix A-2, or ASTM Method D6522-00 (Reapproved 2005) (heated probe not necessary). Measurements to determine O₂ must be made at the same time as the measurements for CO concentration.

- (c) Measure the CO at the inlet and the outlet of the control device using ASTM D6522-00 (Reapproved 2005) (heated probe not necessary) or Method 10 of 40 CFR Part 60, Appendix A-4. The CO concentration shall be at 15 percent O₂, dry basis.
- (3) To demonstrate initial compliance with Condition IV.C.2.b and IV.C.3.b, the Permittee shall:
- [40 CFR 63.6610(a), Table 4 to 40 CFR Part 63 Subpart ZZZZ]
- (a) Select the sampling port location and the number/location of traverse points at the exhaust of the engine. For formaldehyde, CO, O₂, and moisture measurement, ducts ≤ 6 inches in diameter may be sampled at a single point located at the duct centroid and ducts > 6 and ≤ 12 inches in diameter may be sampled at 3 traverse points located at 16.7, 50.0, and 83.3% of the measurement line ('3-point long line'). If the duct is > 12 inches in diameter and the sampling port location meets the two and half-diameter criterion of Section 11.1.1 of Method 1 of 40 CFR Part 60, Appendix A, the duct may be sampled at '3-point long line'; otherwise, conduct the stratification testing and select sampling points according to Section 8.1.2 of Method 7E of 40 CFR Part 60, Appendix A. If using a control device, the sampling site shall be located at the outlet of the control device.
 - (b) Determine the O₂ concentration of the engine exhaust at the sampling port location using Method 3 or 3A or 3B of 40 CFR Part 60, Appendix A-2, or ASTM Method D6522-00 (Reapproved 2005) (heated probe not necessary). Measurements to determine O₂ concentration shall be made at the same time and location as the measurements for formaldehyde or CO concentration.
 - (c) Measure moisture content of the engine exhaust at the sampling port location using Method 4 of 40 CFR Part 60, Appendix A-3, or Method 320 of 40 CFR Part 63, Appendix A, or ASTM D 6348-03. Measurements to determine moisture content shall be made at the same time and location as the measurements for formaldehyde or CO concentration.
 - (d) Measure formaldehyde at the exhaust of the engine using Method 320 or 323 of 40 CFR Part 63, Appendix A; or ASTM D6348-03, provided in ASTM D6348-03 Annex A5 (Analyte Spiking Technique), the percent R shall be greater than or equal to 70 and less than or equal to 130. Formaldehyde concentration shall be at 15 percent O₂, dry

basis. Results of this test consist of the average of the three 1-hour or longer runs.

b. Subsequent Performance Test

(1) To demonstrate continuous compliance with Condition IV.C.2 and IV.C.3, the Permittee shall conduct subsequent performance tests semiannually if not using a CEMS.

[40 CFR 63.6615, Table 3 to 40 CFR Part 63 Subpart ZZZZ]

(2) After the Permittee has demonstrated compliance for two consecutive tests, the Permittee may reduce the frequency of subsequent performance tests to annually. If the results of any subsequent annual performance test indicate the engine is not in compliance with the CO or formaldehyde emission limitation, or the Permittee deviates from any of the operating limitations, the Permittee shall resume semiannual performance tests.

[40 CFR 63.6615, Table 3 to 40 CFR Part 63 Subpart ZZZZ]

c. The Permittee does not need to start up the engine solely to conduct the performance test, and can conduct the performance test when the engine is started up again. The test shall be conducted at any load condition within plus or minus 10 percent of 100 percent load for the engine.

[40 CFR 63.6620(b)]

d. The Permittee shall conduct three separate test runs for each performance test, as specified in 40 CFR 63.7(e)(3). Each test run shall last at least 1 hour, unless otherwise specified in this section.

[40 CFR 63.6620(d)]

e. The Permittee shall use the following equation to determine compliance with the percent reduction requirement:

$$\frac{C_i - C_0}{C_i} \times 100 = R$$

Where:

C_i = concentration of carbon monoxide (CO), total hydrocarbons (THC), or formaldehyde at the control device inlet,

C_0 = concentration of CO, THC, or formaldehyde at the control device outlet, and

R = percent reduction of CO, THC, or formaldehyde emissions.

[40 CFR 63.6620(e)]

f. The Permittee shall normalize the CO, THC, or formaldehyde concentrations at the inlet and outlet of the control device to a dry basis and to 15 percent oxygen, or an equivalent percent carbon dioxide (CO₂).

If pollutant concentrations are to be corrected to 15 percent oxygen and CO₂ concentration is measured in lieu of oxygen concentration measurement, a CO₂ correction factor is needed. The Permittee shall calculate the CO₂ correction factor as described in Condition IV.C.6.f(1) to (3).

[40 CFR 63.6620(e)(2)]

- (1) Calculate the fuel-specific F_0 value for the fuel burned during the test using values obtained from Method 19, Section 5.2, and the following equation:

$$F_0 = \frac{0.209F_d}{F_c}$$

Where:

F_0 = Fuel factor based on the ratio of oxygen volume to the ultimate CO₂ volume produced by the fuel at zero percent excess air.

0.209 = Fraction of air that is oxygen, percent/100.

F_d = Ratio of the volume of dry effluent gas to the gross calorific value of the fuel from Method 19, dsm³/J (dscf/10⁶ Btu).

F_c = Ratio of the volume of CO₂ produced to the gross calorific value of the fuel from Method 19, dsm³/J (dscf/10⁶ Btu).

[40 CFR 63.6620(e)(2)(i)]

- (2) Calculate the CO₂ correction factor for correcting measurement data to 15 percent O₂, as follows:

$$X_{CO_2} = \frac{5.9}{F_0}$$

Where:

X_{CO_2} = CO₂ correction factor, percent.

5.9 = 20.9 percent O₂ – 15 percent O₂, the defined O₂ correction value, percent.

[40 CFR 63.6620(e)(2)(ii)]

- (3) Calculate the CO, THC, and formaldehyde gas concentrations adjusted to 15 percent O₂ using CO₂ as follows:

$$C_{adj} = C_d \frac{X_{CO_2}}{\%CO_2}$$

Where:

C_{adj} = Calculated concentration of CO, THC, or formaldehyde adjusted to 15 percent O₂.

C_d = Measured concentration of CO, THC, or formaldehyde, uncorrected.

X_{CO_2} = CO₂ correction factor, percent.

$\%CO_2$ = Measured CO₂ concentration measured, dry basis, percent.

[40 CFR 63.6620(e)(2)(iii)]

- g. The engine percent load during a performance test shall be determined by documenting the calculations, assumptions, and measurement devices used to measure or estimate the percent load in a specific application. A written report of the average percent load determination shall be included in the notification of compliance status. The following information shall be included in the written report: the engine model number, the engine manufacturer, the year of purchase, the manufacturer's site-rated brake horsepower, the ambient temperature, pressure, and humidity during the performance test, and all assumptions that were made to estimate or calculate percent load during the performance test shall be clearly explained. If measurement devices such as flow meters, kilowatt meters, beta analyzers, stain gauges, etc. are used, the model number of the measurement device, and an estimate of its accurate in percentage of true value shall be provided.

[40 CFR 63.6620(i)]

7. Monitoring, Installation, Collection, Operation, and Maintenance Requirements for New Non-Emergency Natural Gas Engines and New Non-Emergency Diesel Engines with Site Rating of more than 500 Brake HP

- a. Continuous parameter monitoring system (CPMS)

The Permittee shall install a CPMS as specified in Condition IV.C.7.a, and install, operate, and maintain the CPMS according to the requirements in Condition IV.C.7.a(1) to (6).

[40 CFR 63.6625(b)]

- (1) The Permittee shall prepare a site-specific monitoring plan that addresses the monitoring system design, data collection, and the quality assurance and quality control elements outlined in Condition IV.C.7.a(1)(a) to (d) and in 40 CFR 63.8(d). As specified in 40 CFR 63.8(f)(4), the Permittee may request approval of monitoring system quality assurance and quality control procedures alternative to those specified in Condition IV.C.7.a(1)(a) to (d) in the site-specific monitoring plan.

[40 CFR 63.6625(b)(1)]

- (a) The performance criteria and design specifications for the monitoring system equipment, including the sample interface, detector signal analyzer, and data acquisition and calculations;
 - (b) Sampling interface (e.g., thermocouple) location such that the monitoring system will provide representative measurements;
 - (c) Equipment performance evaluations, system accuracy audits, or other audit procedures;
 - (d) Ongoing operation and maintenance procedures in accordance with provisions in 40 CFR 63.8(c)(1)(ii) and (c)(3); and
 - (e) Ongoing reporting and recordkeeping procedures in accordance with provisions in 40 CFR 63.10(c), (e)(1), and (e)(2)(i).
- (2) The Permittee shall install, operate, and maintain each CPMS in continuous operation according to the procedures in the site-specific monitoring plan.
[40 CFR 63.6625(b)(2)]
- (3) The CPMS shall collect data at least once every 15 minutes.
[40 CFR 63.6625(b)(3)]
- (4) For a CPMS for measuring temperature range, the temperature sensor shall have a minimum tolerance of 2.8 degrees Celsius (5 degrees Fahrenheit) or 1 percent of the measurement range, whichever is larger.
[40 CFR 63.6625(b)(4)]
- (5) The Permittee shall conduct the CPMS equipment performance evaluation, system accuracy audits, or other audit procedures specified in the site-specific monitoring plan at least annually.
[40 CFR 63.6625(b)(5)]
- (6) The Permittee shall conduct a performance evaluation of each CPMS in accordance with your site-specific monitoring plan.
[40 CFR 63.6625(b)(6)]
- b. Continuous emission monitoring system (CEMS)
- If the Permittee elects to install a CEMS as specified in Condition IV.C.7.b, the Permittee shall install, operate, and maintain a CEMS to monitor CO and either O₂ or CO₂ according to the requirements in Condition IV.C.7.b(1) to (4). The CEMS shall be installed at both the inlet and outlet of the control device.

[40 CFR 63.6625(a)]

- (1) Each CEMS shall be installed, operated, and maintained according to the applicable performance specifications of 40 CFR Part 60, Appendix B.
[40 CFR 63.6625(a)(1)]
 - (2) The Permittee shall conduct an initial performance evaluation and an annual relative accuracy test audit (RATA) of each CEMS according to the requirements in 40 CFR 63.8 and according to the applicable performance specifications of 40 CFR Part 60, Appendix B as well as daily and periodic data quality checks in accordance with 40 CFR Part 60, Appendix F, procedure 1.
[40 CFR 63.6625(a)(2)]
 - (3) As specified in 40 CFR 63.8(c)(4)(ii), each CEMS shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period. The Permittee shall have at least two data points, with each representing a different 15-minute period, to have a valid hour of data.
[40 CFR 63.6625(a)(3)]
 - (4) The CEMS data shall be reduced as specified in 40 CFR 63.8(g)(2) and recorded in parts per million or parts per billion (as appropriate for the applicable limitation) at 15 percent oxygen or the equivalent CO₂ concentration.
[40 CFR 63.6625(a)(4)]
- c. The Permittee shall minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the emission standards in Condition IV.C.2 and IV.C.3 apply.
[40 CFR 63.6625(h)]
8. Compliance Demonstration for New Non-Emergency Natural Gas Engines and New Non-Emergency Diesel Engines with Site Rating of more than 500 Brake HP
- a. The Permittee shall demonstrate initial compliance with the with the following requirements:
[40 CFR 63.6630(a)]
 - (1) If the Permittee installs, operate, and maintain a CPMS according to the requirements in Condition IV.C.7.a, the Permittee has demonstrated initial compliance if:
[Table 5 to 40 CFR Part 63 Subpart ZZZZ]
 - (a) The average reduction of emissions of CO determined from the initial performance test achieves the required CO percent reduction; and

- (b) The Permittee has installed a CPMS to continuously monitor catalyst inlet temperature according to the requirements in Condition IV.C.7.a; and
 - (c) The Permittee has recorded the catalyst pressure drop and catalyst inlet temperature during the initial performance test.
- (2) If the Permittee elects to install, operate, and maintain a CEMS according to the requirements in Condition IV.C.7.b, the Permittee has demonstrated initial compliance if:
 [Table 5 to 40 CFR Part 63 Subpart ZZZZ]
- (a) The Permittee has installed a CEMS to continuously monitor CO and either O₂ or CO₂ at both the inlet and outlet of the oxidation catalyst according to Condition IV.C.7.b; and
 - (b) The Permittee has conducted a performance evaluation of the CEMS using PS 3 and 4A of 40 CFR Part 60, Appendix B; and
 - (c) The average reduction of CO calculated according to Condition IV.C.6.e equals or exceeds the required percent reduction. The initial test comprises the first 4-hour period after successful validation of the CEMS. Compliance is based on the average percent reduction achieved during the 4-hour period.
- (3) During the initial performance test, the Permittee shall establish each the operating limitations in Condition IV.C.4.
 [40 CFR 63.6630(b)]
- (4) The Permittee shall submit the Notification of Compliance Status containing the results of the initial compliance demonstration according to the requirements in Condition IV.C.9.e.
 [40 CFR 63.6630(c)]
- b. Continuous Compliance Requirements
- (1) The Permittee shall monitor and collect data according to this section to demonstrate compliance with the emission and operating limitations in Condition IV.C.2, IV.C.3, and IV.C.4.
 [40 CFR 63.6635(a)]
 - (2) Except for monitor malfunctions, associated repairs, required performance evaluations, and required quality assurance or control activities, the Permittee shall monitor continuously at all times that the engine is operating. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the

monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.

[40 CFR 63.6635(b)]

- (3) The Permittee may not use data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities in data averages and calculations used to report emission or operating levels. The Permittee shall, however, use all the valid data collected during all other periods.

[40 CFR 63.6635(c)]

- (4) If the Permittee installs, operates, and maintains a CPMS according to the requirements in Condition IV.C.7.a, the Permittee shall demonstrate continuous compliance by:

[40 CFR 63.6640(a), Table 6 to 40 CFR Part 63 Subpart ZZZZ]

- (a) Conducting semiannual performance tests for CO to demonstrate that the required CO percent reduction is achieved; and
- (b) Collecting the catalyst inlet temperature data according to Condition IV.C.7.a; and
- (c) Reducing these data to 4-hour rolling averages; and
- (d) Maintaining the 4-hour rolling averages within the operating limitations for the catalyst inlet temperature; and
- (e) Measuring the pressure drop across the catalyst once per month and demonstrating that the pressure drop across the catalyst is within the operating limitation established during the performance test.

- (5) If the Permittee elects to install, operate, and maintain a CEMS according to the requirements in Condition IV.C.7.b, the Permittee shall demonstrate continuous compliance by:

[40 CFR 63.6640(a), Table 6 to 40 CFR Part 63 Subpart ZZZZ]

- (a) Collecting the monitoring data according to Condition IV.C.7.b, reducing the measurements to 1-hour averages, calculating the percent reduction or concentration of CO emissions according to Condition IV.C.6.e; and
- (b) Demonstrating that the catalyst achieves the required percent reduction of CO emissions over the 4-hour averaging period, or that the emission remains at or below the CO concentration limit; and

- (c) Conducting an annual RATA of the CEMS using PS 3 and 4A of 40 CFR Part 60, Appendix B, as well as daily and periodic data quality checks in accordance with 40 CFR part 60, Appendix F, Procedure 1.
- (6) The Permittee shall report each instance in which you did not meet each emission limitation or operating limitation in Condition IV.C.2, IV.C.3, and IV.C.4. These instances are deviations from the emission and operating limitations. These deviations shall be reported according to the requirements in Condition IV.C.9.i. If the Permittee changes the catalyst, the Permittee shall reestablish the values of the operating parameters measured during the initial performance test. When the Permittee reestablishes the values of the operating parameters, the Permittee shall also conduct a performance test to demonstrate that the Permittee is meeting the required emission limitations.
[40 CFR 63.6640(b)]
- (7) The Permittee shall report each instance in which the Permittee did not meet the requirements in Table 8 to 40 CFR Part 63 Subpart ZZZZ that are applicable.
[40 CFR 63.6640(e)]
9. Notifications, Reports, and Recordkeeping Requirements
- a. For the new emergency engines, the new non-emergency natural gas engines, and the new non-emergency diesel engines with site rating of more than 500 brake HP, the Permittee shall submit all of the following notifications in 40 CFR 63.7(b) and (c), 63.8(e), (f)(4) and (f)(6), 63.9(b) through (e), and (g) and (h)) by the dates specified.
[40 CFR 63.6645(a)]
- b. For the new emergency engines, the new non-emergency natural gas engines, and the new non-emergency diesel engines with site rating of more than 500 brake HP, the Permittee shall submit an Initial Notification not later than 120 days upon issuance of this permit.
[40 CFR 63.6645(c)]
- c. For the new emergency engines, the notification should include the information in 40 CFR 63.9(b)(2)(i) through (v), and a statement that the stationary RICE has no additional requirements and explain the basis of the exclusion.
[40 CFR 63.6645(f)]
- d. For the new non-emergency natural gas engines and the new non-emergency diesel engines with site rating of more than 500 brake HP, the Permittee shall submit a Notification of Intent to conduct a performance test at least 60 days before the performance test is scheduled to begin as required in 40 CFR 63.7(b)(1).
[40 CFR 63.6645(g)]

- e. For the new non-emergency natural gas engines and the new non-emergency diesel engines with site rating of more than 500 brake HP, the Permittee shall submit a Notification of Compliance Status according to 40 CFR 63.9(h)(2)(ii).
[40 CFR 63.6645(h)]
- (1) For each initial compliance demonstration required in Condition IV.C.8.a, the Permittee shall submit the Notification of Compliance Status, including the performance test results, before the close of business on the 60th day following the completion of the performance test according to 40 CFR 63.10(d)(2).
[40 CFR 63.6645(h)(2)]
- f. For the new non-emergency natural gas engines and the new non-emergency diesel engines with site rating of more than 500 brake HP, the Permittee shall submit a compliance report semiannually containing:
[40 CFR 63.6650(a), Table 7 to 40 CFR Part 63 Subpart ZZZZ]
- (1) If there are no deviations from any emission limitations or operating limitations, a statement that there were no deviations from the emission limitations or operating limitations during the reporting period. If there were no periods during which the CMS, including CEMS and CPMS, was out-of-control, as specified in 40 CFR 63.8(c)(7), a statement that there were not periods during which the CMS was out-of-control during the reporting period; or
- (2) If there were periods during which the CMS, including CEMS and CPMS, was out-of-control, as specified in 40 CFR 63.8(c)(7), the information in Condition IV.C.9.i; or
- (3) If the Permittee had a malfunction during the reporting period, the information in Condition IV.C.9.h(4).
- g. For the new non-emergency natural gas engines and the new non-emergency diesel engines with site rating of more than 500 brake HP, unless the EPA Administrator has approved a different schedule for submission of reports under 40 CFR 63.10(a), the Permittee shall submit each report by the date in Condition IV.C.9.f and according to the requirements in Condition IV.C.9.g(1) through (4) of this Attachment:
[40 CFR 63.6650(b)]
- (1) For semiannual Compliance reports, the first Compliance report shall cover the period beginning upon startup of the engines and ending on June 30 or December 31, whichever date is the first date following the end of the first calendar half after startup of the engines.
[40 CFR 63.6650(b)(1)]
- (2) For semiannual Compliance reports, the first Compliance report shall be postmarked or delivered no later than July 31 or January

31, whichever date follows the end of the first calendar half after startup of the engines.

[40 CFR 63.6650(b)(2)]

- (3) For semiannual Compliance reports, each subsequent Compliance report shall cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31.

[40 CFR 63.6650(b)(3)]

- (4) For semiannual Compliance reports, each subsequent Compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period.

[40 CFR 63.6650(b)(4)]

- h. For the new non-emergency natural gas engines and the new non-emergency diesel engines with site rating of more than 500 brake HP, the Compliance report shall contain the information in Condition IV.C.9.h(1) through (6) of this Attachment:

[40 CFR 63.6650(c)]

- (1) Company name and address.
- (2) Statement by a responsible official, with that official's name, title, and signature, certifying the accuracy of the content of the report.
- (3) Date of report and beginning and ending dates of the reporting period.
- (4) If you had a malfunction during the reporting period, the compliance report must include the number, duration, and a brief description for each type of malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded. The report must also include a description of actions taken by an owner or operator during a malfunction of an affected source to minimize emissions in accordance with Condition IV.C.5.c, including actions taken to correct a malfunction.
- (5) If there are no deviations from any emission or operating limitations that apply to you, a statement that there were no deviations from the emission or operating limitations during the reporting period.
- (6) If there were no periods during which the continuous monitoring system (CMS), including CEMS and CPMS, was out-of-control, as specified in 40 CFR 63.8(c)(7), a statement that there were no periods during which the CMS was out-of-control during the reporting period.

- i. For the new non-emergency natural gas engines and the new non-emergency diesel engines with site rating of more than 500 brake HP, for each deviation from an emission or operating limitation, the Permittee shall include information in Condition IV.C.9.h(1) through (4) and Condition IV.C.9.i(1) through (12) of this Attachment.
- [40 CFR 63.6650(e)]
- (1) The date and time that each malfunction started and stopped.
 - (2) The date, time, and duration that each CMS was inoperative, except for zero (low-level) and high-level checks.
 - (3) The date, time, and duration that each CMS was out-of-control, including the information in 40 CFR 63.8(c)(8).
 - (4) The date and time that each deviation started and stopped, and whether each deviation occurred during a period of malfunction or during another period.
 - (5) A summary of the total duration of the deviation during the reporting period, and the total duration as a percent of the total source operating time during that reporting period.
 - (6) A breakdown of the total duration of the deviations during the reporting period into those that are due to control equipment problems, process problems, other known causes, and other unknown causes.
 - (7) A summary of the total duration of CMS downtime during the reporting period, and the total duration of CMS downtime as a percent of the total operating time of the stationary RICE at which the CMS downtime occurred during that reporting period.
 - (8) An identification of each parameter and pollutant (CO or formaldehyde) that was monitored at the stationary RICE.
 - (9) A brief description of the stationary RICE.
 - (10) A brief description of the CMS.
 - (11) The date of the latest CMS certification or audit.
 - (12) A description of any changes in CMS, processes, or controls since the last reporting period.
- j. For the new non-emergency natural gas engines and the new non-emergency diesel engines with site rating of more than 500 brake HP, the Permittee shall report all deviations as defined in this Section in the semiannual monitoring report required by 40 CFR 70.6 (a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A). If the Permittee submits a Compliance report in

accordance with Condition IV.C.9.f along with, or as part of, the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), and the Compliance report includes all required information concerning deviations from any emission or operating limitation in this subpart, submission of the Compliance report shall be deemed to satisfy any obligation to report the same deviations in the semiannual monitoring report. However, submission of a Compliance report shall not otherwise affect any obligation the Permittee may have to report deviations from permit requirements to the permit authority.

[40 CFR 63.6650(f)]

- k. For the new non-emergency natural gas engines and the new non-emergency diesel engines with site rating of more than 500 brake HP, the Permittee shall keep the records described in Condition IV.C.9.k(1) through (5) in this Attachment:

[40 CFR 63.6655(a)]

- (1) A copy of each notification and report that you submitted to comply with this subpart, including all documentation supporting any Initial Notification or Notification of Compliance Status that you submitted, according to the requirement in 40 CFR 63.10(b)(2)(xiv).
- (2) Records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment.
- (3) Records of performance tests and performance evaluations as required in 40 CFR 63.10(b)(2)(viii).
- (4) Records of all required maintenance performed on the air pollution control and monitoring equipment.
- (5) Records of actions taken during periods of malfunction to minimize emissions in accordance with 40 CFR 63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.

- l. For the new non-emergency natural gas engines and the new non-emergency diesel engines with site rating of more than 500 brake HP, for each CEMS or CPMS, the Permittee shall keep the records below:

[40 CFR 63.6655(b)]

- (1) Records described in 40 CFR 63.10(b)(2)(vi) through (xi).
- (2) Previous (i.e., superseded) versions of the performance evaluation plan as required in 40 CFR 63.8(d)(3).

V. STORAGE TANKS AND DISPENSING

- (3) Requests for alternatives to the relative accuracy test for CEMS or CPMS as required in 40 CFR 63.8(f)(6)(i), if applicable.
- m. For the new non-emergency natural gas engines and the new non-emergency diesel engines with site rating of more than 500 brake HP, the Permittee shall keep the records required in Condition IV.C.8.b(4) or IV.C.8.b(5) to show continuous compliance with each emission and operating limitation.
[40 CFR 63.6655(d)]
- n. The records shall be in a form suitable and readily available for expeditious review according to 40 CFR 63.10(b)(1).
[40 CFR 63.6660(a)]
- o. As specified in 40 CFR 63.10(b)(1), the Permittee shall keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.
[40 CFR 63.6660(b)]
- p. The Permittee shall keep each record readily accessible in hard copy or electronic form for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to 40 CFR 63.10(b)(1).
[40 CFR 63.6660(c)]
10. Permit Shield

Compliance with the requirements of Condition IV.C shall be deemed compliance with 40 CFR 63.6600(b), 40 CFR 63.6595(a)(3), 40 CFR 63.6605(a, b), 40 CFR 63.6610(a), 40 CFR 63.6615, 40 CFR 63.6620(d, e(2), i), 63.6625(a, b, d, h), 40 CFR 63.6630(a, b, c), 40 CFR 63.6635(a, b, c), 40 CFR 63.6640(a, b, e), 40 CFR 63.6645(a, c, f, g, h(2)), 40 CFR 63.6650(a, b, c, e, f), 40 CFR 63.6655(a, b, d), 40 CFR 63.6660(a, b, c), and Table 2a, 2b, 3, 4, 5, 6, and 7 to 40 CFR Part 63 Subpart *ZZZZ*.

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

V. STORAGE TANKS AND DISPENSING

This Section applies to the gasoline and diesel storage tanks as identified in the last column of the Equipment List in Attachment “C”. When operating under Primary Operating Scenario (POS) or Alternate Operating Scenario No. 2 (AOS 2) – Tailing Storage Facility 2 (TSF2) Alternative, the Permittee shall comply with the requirements in Condition V.A of this Attachment for the gasoline storage tanks. When operating under Alternate Operating Scenario No. 1 (AOS 1) – Line Power Alternative, the Permittee shall comply with the requirements in Condition V.A and V.B of this Attachment for the gasoline storage tanks. For diesel storage tanks, the Permittee shall comply with the requirements in Condition V.A of this Attachment at all times.

A. A.A.C. R18-2-710 Requirements

1. Applicability

For the gasoline storage tanks and diesel storage tanks, the Permittee shall comply with the requirements in Condition V.A at all times.

2. Operating Requirements

a. Any other gasoline or diesel storage tank shall be equipped with a submerged filling device, or acceptable equivalent, for the control of hydrocarbon emissions.

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

b. All facilities for dock loading of petroleum products, having a vapor pressure of 1.5 pounds per square inch absolute or greater at loading pressure, shall provide for submerged filling or acceptable equivalent for control of hydrocarbon emissions.

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

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

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

3. Monitoring and Recordkeeping Requirements

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

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

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

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

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

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

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

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

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

[A.A.C. R18-2-710.E.3]

V. STORAGE TANKS AND DISPENSING

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

[A.A.C. R18-2-710.E.4]

4. Permit Shield

Compliance with the requirements of Condition V.A shall be deemed compliance with A.A.C. R18-2-710.

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

B. 40 CFR Part 63 Subpart CCCCCC Requirements

1. Applicability

- a. This Section applies to the following:

- (1) When the Permittee operates under Alternate Operating Scenario No. 1 (AOS 1) – Line Power Alternative.
[40 CFR 63.11111(a)]
- (2) Gasoline Dispensing Facilities (GDFs), Storage tanks at the GDFs listed in Equipment List, Attachment “C”, associated equipment components in vapor or liquid gasoline service, pressure/vacuum vents on gasoline storage tanks, and equipment necessary to unload product from cargo tanks into storage tanks at GDFs. The equipment used for the refueling of motor vehicles is not covered.
[40 CFR 63.11111 (a), (b), & (c), and 63. 11112(a)]
- (3) Each gasoline cargo tank during the delivery of product to a GDF.
[40 CFR 63.11111(a)]

b. Definition of Monthly Throughput

- (1) Monthly throughput means the total volume of gasoline that is loaded into, or dispensed from, all gasoline storage tanks at each GDF during a month. Monthly throughput is calculated by summing the volume of gasoline loaded into, or dispensed from, all gasoline storage tanks at each GDF during the current day, plus the total volume of gasoline loaded into, or dispensed from, all

V. STORAGE TANKS AND DISPENSING

gasoline storage tanks at each GDF during the previous 364 days, and then dividing that sum by 12.

[40 CFR 63.11132]

- c. If any GDF referenced above increases the monthly throughput over 100,000 gallons per month, the Permittee shall comply with new applicable standards of 40 CFR Part 63 Subpart CCCCCC within 3 years of the GDF unit becoming subject to the new control requirements.

[40 CFR 63.11113(c)]

- d. The Permittee shall comply with the requirements of this section upon the initial startup.

[40 CFR 63.11116(c), 40 CFR 63.11117(f)]

2. Emission Limitations and Management Practices

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

[40 CFR 63.11115(a)]

- b. The Permittee shall keep applicable records and submit reports as specified in Condition V.B.3.b and V.B.3.c of this Attachment.

[40 CFR 63.11115(b)]

- c. For the facilities with monthly throughput of less than 10,000 gallons of gasoline:

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

[40 CFR 63.11116(a)]

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

V. STORAGE TANKS AND DISPENSING

- (2) The Permittee shall have records available within 24 hours of a request by the Director to document your gasoline throughput.
[40 CFR 63.11116(b)]
- d. For the facilities with monthly throughput of 10,000 gallons of gasoline or more:
- (1) The Permittee shall comply with the requirements in Condition V.B.2.c(1).
[40 CFR 63.11117(a)]
- (2) The Permittee shall only load gasoline into storage tanks by utilizing submerged filling, as specified in Condition V.B.2.d(2)(a) or (b) of this Attachment. The applicable distances in Condition V.B.2.d(2)(a) shall be measured from the point in the opening of the submerged fill pipe that is the greatest distance from the bottom of the storage tank.
[40 CFR 63.11117(b)]
- (a) Shall be no more than 6 inches from the bottom of the tank.
[40 CFR 63.11117(b)(2)]
- (b) If the submerged fill pipes do not meet the specifications specified above, the Permittee shall demonstrate that the liquid level in the tank is always above the entire opening of the fill pipe. Documentation providing such demonstration shall be made available for inspection by the EPA Administrator's delegated representative during the course of a site visit.
[40 CFR 63.11117(b)(3)]
3. Notifications, Records, and Reports Requirements
- a. For the facilities with monthly throughput of 10,000 gallons of gasoline or more:
[40 CFR 63.11124(a)]
- (1) The Permittee shall submit an Initial Notification that the Permittee is subject to 40 CFR Part 63 Subpart CCCCCC no later than 120 days after the initial startup. The Initial Notification shall contain the information specified in Condition V.B.3.a(1)(a) through (c) below. The notification shall be submitted to EPA Region IX and the Director.
[40 CFR 63.11117(e), 40 CFR 63.11124(a)(1)]
- (a) The name and address of the owner and the operator.
- (b) The address (i.e., physical location) of the GDF.

V. STORAGE TANKS AND DISPENSING

- (c) A statement that the notification is being submitted in response to this section and identifying the requirements in paragraphs (a) through (c) of 40 CFR 63.11117 that apply to you.
- (2) The Permittee shall submit a Notification of Compliance Status to EPA Region IX, within 60 days upon the initial startup. The Notification of Compliance Status shall be signed by a responsible official who shall certify its accuracy, shall indicate whether the source has complied with the requirements of this section, and shall indicate whether the facilities' monthly throughput is calculated based on the volume of gasoline loaded into all storage tanks or on the volume of gasoline dispensed from all storage tanks. If the Permittee is in compliance with the requirements of this section at the time the Initial Notification required under Condition V.B.3.a(1) of this Attachment is due, the Notification of Compliance Status may be submitted in lieu of the Initial Notification provided it contains the information required under Condition V.B.3.a(1) of this Attachment.
[40 CFR 63.11124(a)(2)]
- b. The Permittee shall keep records as specified in Condition V.B.3.b(1) and (2) below:
[40 CFR 63.11125(d)]
- (1) Records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment.
- (2) Records of actions taken during periods of malfunction to minimize emissions in accordance with Condition V.B.2.a of this Attachment, including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.
- c. The Permittee shall report, by March 15 of each year, the number, duration, and a brief description of each type of malfunction which occurred during the previous calendar year and which caused or may have caused any applicable emission limitation to be exceeded. The report shall also include a description of actions taken by an owner or operator during a malfunction of an affected source to minimize emissions in accordance with Condition V.B.2.a of this Attachment, including actions taken to correct a malfunction. No report is necessary for a calendar year in which no malfunctions occurred.
[40 CFR 63.11126(b)]
- d. The Permittee shall maintain monthly record of the gasoline throughput of each GDF as detailed in Condition V.B.1.b.
[A.A.C. R18-2-306.A.3.c]

- e. For the facilities with monthly throughput of 10,000 gallons of gasoline or more, the Permittee shall have records available within 24 hours of request by the Director or EPA Administrator documenting the gasoline throughput.

[40 CFR 63.11117(d)]

4. Permit Shield

Compliance with the requirements of Condition V.B shall be deemed compliance with 40 CFR 63.11111 (a, b, c), 63.11112(a), 40 CFR 63.11113(c), 40 CFR 63.11115, 40 CFR 63.11116(a, b, c), 40 CFR 63.11117(a, b, d, e, f), 40 CFR 63.11124(a)(1) and (a)(2), 40 CFR 63.11125(d), and 40 CFR 63.11126(b).

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

VI. CONCRETE BATCH PLANT

A. Applicability

This Section applies to operations associated with the Concrete Batch Plant as identified in the last column of the Equipment List in Attachment “C”.

B. Emission Limitations and Standards

1. The opacity of any plume or effluent from any existing, stationary, point source shall not be greater than 20%.

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

2. If the presence of uncombined water is the only reason for an exceedance of the visible emissions requirement in Condition VI.B.1 above, the exceedance shall not constitute a violation of the applicable opacity limit.

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

C. Operational Limitations

1. *At the Taylor site, the Permittee shall limit the maximum concrete processed by the Concrete Batch Plant to no more than 110.34 tons per day.*

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

[Material Permit Conditions are indicated with underline and italics]

2. *At the Clark site, the Permittee shall limit the maximum concrete processed by the Concrete Batch Plant to no more than 5.44 tons per day.*

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

[Material Permit Conditions are indicated with underline and italics]

D. Monitoring, Recordkeeping, and Reporting Requirements

The Permittee shall conduct the periodic opacity monitoring method specified in Condition II.B of Attachment “B” once every two weeks for all emission units subject to Section VI.

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

E. Air Pollution Prevention and Control Requirements

VII. UNCLASSIFIED SOURCES

1. The Permittee shall control fugitive dust emissions from concrete batch plants in accordance with A.A.C. R18-2-604 through A.A.C. R18-2-607 (see Section VIII of Attachment “B”).

[A.A.C. R18-2-723]

2. At all times, including periods of startup, shutdown, and malfunction, the Permittee shall, to the extent practicable, install, operate and maintain air pollution controls on all emission units subject to Section VI in a manner consistent with good air pollution control practice for minimizing emissions and comply with the applicable emission limitations and standards in Condition VI.B.1 above. Air pollution controls include wet suppression, baghouse, rubber sleeve, or other equivalent control methods.

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

F. Permit Shield

Compliance with the requirements of Section VI shall be deemed compliance with A.A.C. R18-2-702.B.3, -702.C, and -723.

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

VII. UNCLASSIFIED SOURCES

A. Applicability

The facilities subject to this section are identified in the last column of the Equipment List in Attachment “C”.

B. Emission Limitations and Standards

1. Particulate Matter and Opacity

a. Particulate Matter

The Permittee shall not cause, allow, or permit the discharge of particulate matter into the atmosphere in any one hour from the affected sources subject to this section in total quantities in excess of the amount calculated by one of the following equations:

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

- (1) For process sources having a process weight rate of 60,000 pounds per hour (30 tons per hour) or less, the maximum allowable emissions shall be determined by the following equation:

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

where:

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

VII. UNCLASSIFIED SOURCES

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

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

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

where “ E ” and “ P ” are defined as indicated in Condition VII.B.1.a(1).

- b. Opacity
- c. The Permittee shall not cause, allow, or permit to be emitted into the atmosphere from the stack of any affected sources, opacity which exceeds 20% as measured by EPA Reference Method 9. [A.A.C. R18-2-702.B.3]
- d. If the presence of uncombined water is the only reason for an exceedance of any visible emissions requirement in this Section, the exceedance shall not constitute a violation of the applicable opacity limit. [A.A.C. R18-2-702.C]

2. Sulfur Dioxide

The Permittee shall not allow to emit from any affected sources more than 600 parts per million of sulfur dioxide. [A.A.C. R18-2-730.A.2]

3. Nitrogen Oxides

The Permittee shall not allow to emit from any affected sources more than 500 parts per million of NO₂. [A.A.C. R18-2-730.A.3]

C. Operating Requirements

- 1. *The Permittee shall operate no more than three of the four evaporator units at any given time.* [A.A.C. R18-2-306.01 and -331.A.3.a]
 [Material Permit Conditions are indicated with underline and italics]
- 2. *The Permittee shall operate each evaporator unit no more than 876 hours in one year based on 12-month rolling total.* [A.A.C. R18-2-306.01 and -331.A.3.a]
 [Material Permit Conditions are indicated with underline and italics]
- 3. The Permittee shall not emit gaseous or odorous materials from equipment, operations or premises under the person’s control in such quantities or concentrations as to cause air pollution. [A.A.C. R18-2-730.D]

VII. UNCLASSIFIED SOURCES

4. Materials including solvents or other volatile compounds, paints, acids, and alkalis shall be processed, stored, used and transported in such a manner and by such means that they will not evaporate, leak, escape or be otherwise discharged into the ambient air so as to cause or contribute to air pollution. Where means are available to reduce effectively the contribution to air pollution from evaporation, leakage or discharge, the installation and use of such control methods, devices, or equipment shall be mandatory.
[A.A.C. R18-2-730.F]
5. Where a stack, vent or other outlet is at such a level that fumes, gas mist, odor, smoke, vapor or any combination thereof constituting air pollution is discharged to adjoining property, the Director may require the installation of abatement equipment or the alteration of such stack, vent, or other outlet by the owner or operator thereof to a degree that will adequately dilute, reduce or eliminate the discharge of air pollution to adjoining property.
[A.A.C. R18-2-730.G]
6. The Permittee shall not allow hydrogen cyanide to be emitted from any location in such manner and amount that the concentration of such emissions into the ambient air at any occupied place beyond the premises on which the source is located exceeds 0.3 parts per million by volume for any averaging period of eight hours.
[A.A.C. R18-2-730.J]
7. The Permittee shall not allow sodium cyanide dust or dust from any other solid cyanide to be emitted from any location in such manner and amount that the concentration of such emissions into the ambient air at any occupied place beyond the premises on which the source is located exceeds 140 micrograms per cubic meter for any averaging period of eight hours.
[A.A.C. R18-2-730.K]

D. Air Pollution Prevention and Control Requirements

1. *At all times, including periods of startup, shutdown, and malfunction, the Permittee shall, to the extent practicable, maintain, and operate WTP1LS according to the manufacturer's specifications and in a manner consistent with good air pollution control practices for minimizing particulate matter emissions.*
[A.A.C. R18-306.01.A and -331.A.3.e]
[Material permit conditions are indicated by underline and italics]
2. *At all times, including periods of startup, shutdown, and malfunction, the Permittee shall, install, maintain, and operate the Dust Collector WTP1LS, and to the extent practicable, to control the particulate matter emissions from the Waste Water Treatment Plant #1 Lime Silo.*
[A.A.C. R18-2-306.01.A and -331.A.3.d and e]
[Material Permit Conditions are indicated with underline and italics]

E. Monitoring, Recordkeeping, and Reporting Requirements

1. The Permittee shall record the daily process rates and hours of operation of all material handling facilities.
[A.A.C. R18-2-306.A.3.c]

2. The Permittee shall conduct a monthly EPA Reference Method 9 observation in accordance with Condition II.B of emissions emanating from the affected sources subject to this section. The Permittee shall keep a record of the name of the observer, date and time of observation, and the results of the observation. If the observation results in an exceedance of the opacity limit contained in Condition VII.B.1.b, the Permittee shall take corrective action and log all such actions. Such exceedances shall be reported as excess emissions specified in Condition XI.A.

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

F. Permit Shield

Compliance with the requirements of Section VII shall be deemed compliance with A.A.C. R18-2-702.B.3, -702.C, -730.A, -D, -F, -G, -J, and -K.

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

VIII. FUGITIVE DUST REQUIREMENTS

A. Applicability

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

B. Particulate Matter and Opacity

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

1. Emission Limitations and Standards

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

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

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

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

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

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

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

VIII. FUGITIVE DUST REQUIREMENTS

- (3) Keep dust and other particulates to a minimum by employing dust suppressants, temporary paving, detouring, wetting down or by other reasonable means when a roadway or alley is used, repaired, constructed, or reconstructed;
[A.A.C. R18-2-605.A]
- (4) Take reasonable precautions, such as wetting, applying dust suppressants, or covering the load when transporting material likely to give rise to airborne dust. Earth or other material that is deposited by trucking or earth moving equipment shall be removed from paved streets by the person responsible for such deposits;
[A.A.C. R18-2-605.B]
- (5) Take reasonable precautions, such as the use of spray bars, wetting agents, dust suppressants, covering the load, and hoods when crushing, screening, handling, transporting or conveying of materials or other operations likely to result in significant amounts of airborne dust;
[A.A.C. R18-2-606]
- (6) Take reasonable precautions such as chemical stabilization, wetting, or covering when organic or inorganic dust producing material is being stacked, piled, or otherwise stored;
[A.A.C. R18-2-607.A]
- (7) Operate stacking and reclaiming machinery utilized at storage piles at all times with a minimum fall of material, or with the use of spray bars and wetting agents;
[A.A.C. R18-2-607.B]
- (8) Operate mineral tailings piles by taking reasonable precautions to prevent excessive amounts of particulate matter from becoming airborne. Reasonable precautions shall mean wetting, chemical stabilization, revegetation or such other measures as are approved by the Director;
[A.A.C R18-2-608]
- (9) Any other method as proposed by the Permittee and approved by the Director.
[A.A.C. R18-2-306.A.3.c]

2. Air Pollution Control Requirements

- a. The Permittee shall not construct new unpaved service roads or unpaved haul roads such that the total lengths of non-temporary operational unpaved roads do not exceed those used in the permit application.
[A.A.C R18-2-306.01.A]
- b. Water, or an equivalent control, shall be used to control visible emissions from haul roads.

VIII. FUGITIVE DUST REQUIREMENTS

[A.A.C. R18-2-306.01.A and -331.A.3.d]
[Material Permit Condition is indicated by underline and italics]

- c. *Water, or an equivalent control, shall be used to control visible emissions from storage piles.*

[A.A.C. R18-2-306.01.A and -331.A.3.d]
[Material Permit Condition is indicated by underline and italics]

- d. *The Permittee shall comply with the dust control measures identified in the Dust Control Plan specified in Attachment "D" of this permit. The Permittee may implement proposed changes to the dust control plan upon submission to the Director if necessary to further minimize fugitive dust.*

[A.A.C. R18-2-604, -605, -606, -607, -614, -306.A.3.c, -306.01.A, and -331.A.3.e]
[Material Permit Conditions are indicated by underline and italics]

- e. The Permittee shall limit the operating hours of dozers at each of the tailings storage facilities and rock storage facilities to 12 hours per location per day.

[A.A.C. R18-2-306.01.A]

- f. Mineral Tailings

The Permittee shall comply with the approved Tailings Management Plan (TMP) included in Attachment "E" of this permit to control particulate matter emissions from activities identified in the TMP. The Permittee may implement proposed changes to the tailings management plan upon submission to the Director to further minimize fugitive dust. Nothing in this permit prohibits the Permittee from implementing additional dust control measures not set forth in the dust control plan.

[A.A.C. R18-2-608, -306.A.3.c, and -306.01.A]

3. Monitoring and Recordkeeping Requirements

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

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

- b. Opacity Monitoring Requirements

- (1) Each week, the Permittee shall monitor visible emissions from fugitive sources excluding mineral tailings in accordance with Condition II.B.

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

- (2) At least twice daily, the Permittee shall monitor visible emissions from mineral tailings in accordance with Condition II.B, starting from the day the permit becomes applicable pursuant to Condition I.A.4 or from the day the perimeter buttress construction begins, whichever comes later.

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

IX. OTHER PERIODIC ACTIVITIES

c. Mineral Tailings

- (1) The Permittee shall follow all the monitoring provisions identified in the approved TMP.

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

- (2) The Permittee shall review the TMP annually for its effectiveness in controlling fugitive emissions. The review shall be submitted to the Director by February 15th of each year (covering the period January 1st through December 31st of the previous year). If the review of the plan shows ineffectiveness in controlling emissions, the Permittee shall submit a revised plan for approval by April 1st following the annual review. The revised TMP 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 the Department and propose how those issues can be avoided in the future. Recommendations or stricter requirements will be prescribed by the Department should the Permittee's annual review show that changes are required but not proposed by the Permittee.

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

d. Recordkeeping Requirements

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

- (1) The Permittee shall record the results of the required monitoring as detailed in the approved TMP. The Permittee shall maintain a copy of watering schedules per shift basis.

- (2) The Permittee shall log the daily operation hours of the dozers.

C. Permit Shield

Compliance with Section VIII shall be deemed compliance with A.A.C. R18-2-604, -605, -606, -607, -608, and -614.

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

IX. OTHER PERIODIC ACTIVITIES

A. Abrasive Blasting

1. Particulate Matter and Opacity

a. Emission Limitations/Standards

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

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

IX. OTHER PERIODIC ACTIVITIES

- (1) Wet blasting;
- (2) Effective enclosures with necessary dust collecting equipment; or
- (3) Any other method approved by the Director.

b. Opacity

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

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

2. Monitoring and Recordkeeping Requirement

- a. Each time an abrasive blasting project is conducted, the Permittee shall monitor visible emissions from abrasive blasting in accordance with Condition II.B to demonstrate compliance with IX.A.1.b.

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

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

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

- (1) The date the project was conducted;
- (2) The duration of the project; and
- (3) Type of control measures employed.

3. Permit Shield

Compliance with Condition IX.A.1 shall be deemed compliance with A.A.C. R18-2-702.B.3 and -726.

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

B. Use of Paints

1. Volatile Organic Compounds

- a. Emission Limitations/Standards

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

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

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

IX. OTHER PERIODIC ACTIVITIES

- (2) The Permittee or their designated contractor shall not either:
[A.A.C.R18-2-727.B]
- (a) Employ, apply, evaporate, or dry any architectural coating containing photochemically reactive solvents for industrial or commercial purposes; or
 - (b) Thin or dilute any architectural coating with a photochemically reactive solvent.
- (3) For the purposes of Condition IX.B.1.a(2), a photochemically reactive solvent shall be any solvent with an aggregate of more than 20 percent of its total volume composed of the chemical compounds classified in Conditions (a) through (c) below, or which exceeds any of the following percentage composition limitations, referred to the total volume of solvent:
[A.A.C.R18-2-727.C]
- (a) A combination of the following types of compounds having an olefinic or cyclo-olefinic type of unsaturation-hydrocarbons, alcohols, aldehydes, esters, ethers, or ketones: 5 percent.
 - (b) A combination of aromatic compounds with eight or more carbon atoms to the molecule except ethylbenzene: 8 percent.
 - (c) A combination of ethylbenzene, ketones having branched hydrocarbon structures, trichloroethylene or toluene: 20 percent.
- (4) Whenever any organic solvent or any constituent of an organic solvent may be classified from its chemical structure into more than one of the groups of organic compounds described in Condition IX.B.1.a(3), it shall be considered to be a member of the group having the least allowable percent of the total volume of solvents.
[A.A.C.R18-2-727.D]
- b. Monitoring and Recordkeeping Requirements
[A.A.C. R18-2-306.A.3.c]
- (1) Each time a spray painting project is conducted, the Permittee shall make a record of the following:
- (a) The date the project was conducted;
 - (b) The duration of the project;
 - (c) Type of control measures employed;

IX. OTHER PERIODIC ACTIVITIES

(d) Safety Data Sheets (SDS) for all paints and solvents used in the project; and

(e) The amount of paint consumed during the project.

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

c. Permit Shield

Compliance with Condition IX.B.1.a shall be deemed compliance with A.A.C.R18-2-727.

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

2. Opacity

a. Emission Limitation/Standard

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

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

b. Monitoring Requirement

Each time a spray painting project is conducted, the Permittee shall monitor visible emissions from spray painting in accordance with Condition II.B to demonstrate compliance with IX.B.2.a.

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

c. Permit Shield

Compliance with Condition IX.B.2.a shall be deemed compliance with A.A.C.R18-2-702.B.3.

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

C. Demolition/Renovation - Hazardous Air Pollutants

1. Emission Limitation/Standard

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

[A.A.C. R18-2-1101.A.12]

2. Monitoring and Recordkeeping Requirements

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

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

3. Permit Shield

Compliance with Condition IX.C.1 shall be deemed compliance with A.A.C. R18-2-1101.A.12.

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

X. PUBLIC ACCESS RESTRICTIONS PLAN

At least 90 days prior to beginning initial startup of the Hermosa project as defined in Condition I.B.1, the Permittee shall submit to the Director for approval a Public Access Restriction Plan (Plan) to effectively preclude general public access at the ambient air boundary used in the ambient air impact analysis. The Plan includes measures such as fencing, natural topographic barriers, signage, security patrols, and access restrictions to adjacent private property to restrict public access to the South32 Hermosa project site. The Plan shall be implemented within 30 days after approval by the Director.

[A.A.C. R18-2-306.01]

XI. AMBIENT MONITORING REQUIREMENTS

A. General Requirements

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

1. Within 6 months of the issuance of this permit, the Permittee shall submit to the Director for approval a written quality assurance project plan (QAPP) for PM₁₀ and PM_{2.5}.

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

2. All ambient air quality monitoring required under this Section shall be conducted in accordance with the following:

- a. Only those methods which have been either designated by the EPA as reference or equivalent methods or approved by the Director shall be used to monitor ambient air.

[A.A.C. R18-2-215.A]

- b. The permittee shall have a written and ADEQ approved quality assurance project/program plan (QAPP) prior to the start of ambient air monitoring.

[A.A.C. R18-2-215.B]

- c. The Director may approve other procedures upon a finding that the proposed procedures are substantially equivalent or superior to procedures in the Appendices to 40 CFR 58.

[A.A.C. R18-2-215.C]

- d. Unless otherwise specified, interpretation of all ambient air quality standards contained in this Section shall be in accordance with 40 CFR 50.

[A.A.C. R18-2-216]

B. General Reporting and Recordkeeping Requirements

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

1. The Permittee shall retain records of all monitoring data in accordance with Section XII of Attachment "A". The data shall be available to ADEQ upon request.

2. Quarterly reports, annual reports and the associated quality assurance information shall be submitted to the Facilities Emissions and Control Section of the Air Quality Division of ADEQ. The fourth quarterly report for the year should include an annual summary of measurements and QA/QC data, as applicable for each monitor.
3. Updated site and monitor metadata information shall be included in the annual reports as applicable.
4. Reports shall be submitted within 90 days after the end of each calendar-year quarter unless otherwise stated by the applicable requirement.
5. Summary data reports shall be consistent with the EPA data handling requirements.
6. The Permittee may submit reports electronically to the Department.
7. All data submitted to the Director shall be reviewed, quality assured, and certified by the Permittee. All of the field documents, QC check documents, etc., need to be submitted with the applicable reports.
8. The Permittee shall provide electronic files of the validated hourly data at the request of the Department. All data and quarterly reports shall be submitted electronically as follows:
 - a. Data recovery reports;
 - b. Any field service activities;
 - c. Any other information required in the monitoring protocol;
 - d. Description of any instrument problems affecting the data, any data validation concerns, and any comments on meteorological conditions occurring during the quarter; and
 - e. Performance results of calibration and audits.
9. Notwithstanding the reporting and data submittal requirements of this section, units shall be consistent with EPA standards (NAAQS) and reporting requirements. If EPA standards or reporting requirements change, the data reporting format and units shall be changed accordingly.

C. PM₁₀ and PM_{2.5} Monitoring

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

1. At least 90 days prior to the startup of mine operations, the Permittee shall install, operate, and maintain a continuous PM₁₀ monitor and a continuous PM_{2.5} monitor at a location approved by the Director at the Brush Hill property. The stations will be installed, maintained, and operated in accordance with the written and approved QAPP, which is consistent with the monitoring protocol approved by the Director,

addressing all general requirements, particulate matter station operations, and quality assurance initiatives.

2. The Permittee shall calculate the monitored daily average PM₁₀ value and PM_{2.5} value in accordance with 40 CFR Parts 50 and 58 and their appendices.
3. **Sampling Frequency**
 - a. The Permittee shall operate the monitor continuously, collecting consecutive hourly readings except during periods of routine maintenance, instrument calibration or malfunction. For the purposes of this section, “continuous” means that 24-hour filters are placed and collected, at a minimum (but it may be more frequent consistent with the requirements of 40 C.F.R. §58.12), every 6 days for the PM₁₀ monitors and every 3 days for the PM_{2.5} monitors.
 - b. In the event of system malfunction, the unit shall be repaired or replaced as soon as possible. Monitoring shall resume as soon as practicable after the correction of the malfunction problem. The Permittee shall report the malfunction to the Director within 24 hours of discovery. A malfunction shall mean equipment or operation issues other than routine maintenance or instrument calibration that result in invalidating a 24-hour sampling day. The report shall contain the probable reason for malfunction and a plan for repairing or replacing the affected equipment. The Permittee shall notify ADEQ if any malfunctions are not corrected within 5 business days.
4. **PM₁₀ and PM_{2.5} Monitoring Quality Assurance/Quality Control**
 - a. The Permittee shall have a written and approved QAPP prior to the start of PM₁₀ and PM_{2.5} monitoring.
 - b. The permittee shall conduct quality assurance activities as stated in the written and approved QAPP in accordance with Section XI.A.2.b of Attachment “B”.
 - c. The Permittee shall conduct monthly flow checks on the monitoring equipment during the 1st half of every calendar month.
 - d. The Permittee shall conduct semi-annual (every six months) performance audits of the monitoring equipment in accordance with the requirements pertaining to sampler accuracy as specified in Appendix A of 40 CFR Part 58. The performance audits shall be conducted by a qualified auditor that is independent of the Permittee.
 - e. The Permittee shall conduct technical systems audits of the PM₁₀ and PM_{2.5} ambient air monitoring program consistent with the Quality Assurance Handbook for Air Pollution Measurement Systems, Volume II, U.S. Environmental Protection Agency. The technical systems audits shall be conducted by a qualified auditor that is independent of the Permittee at least once in every three (3) years.

- f. The Permittee and/or its monitoring contractor shall participate in technical systems audits or performance audits periodically conducted by the Department. The Department shall provide a minimum of 30 days' notice of a technical system audit and a minimum of 48 hours' notice of a performance audit.
5. **PM₁₀ and PM_{2.5} Monitoring Reporting Requirements**
- a. The Permittee shall calculate the quarterly and annual summary statistics in accordance with the procedures of 40 CFR Part 50 and Appendices.
- b. The Permittee shall calculate the precision and accuracy statistics in accordance with the procedures of 40 CFR Part 58 Appendix A.
- c. Valid data recovery shall meet the EPA minimum data completeness requirement of 75 percent per quarter or the percentage specified in 40 CFR Part 50. Valid data shall refer to all observations collected for the specific monitoring purpose. Data collected during precision, audit, flow checks and during servicing shall not be considered valid for data completeness purposes.
- d. The Permittee shall submit to the Director, an electronic report summarizing the PM₁₀ and PM_{2.5} data measurements collected pursuant to this section shall be submitted in accordance with Condition XI.B of Attachment "B".
- e. The Permittee shall submit daily 24-hour average concentrations in the quarterly report based on the EPA data rules in 40 CFR Part 50 Appendix K.
- f. The Permittee shall provide electronic files of the validated hourly data at the request of the Department.

ATTACHMENT "C": EQUIPMENT LIST

EQUIPMENT TYPE	MAX. CAPACITY	MAKE*	MODEL*	SERIAL NUMBER*	INSTALLATION/ MFG. DATE*	EQUIPMENT ID NUMBER	A.A.C. / NSPS / NESHAP
Taylor Site							
Crushers							
Primary Crusher (Underground)	1,543 ton/hr	TBD	TBD	TBD	TBD	CRUSH-1	A.A.C. R18-2-721
Pebble Crusher	220 ton/hr	TBD	TBD	TBD	TBD	22210-CR-00001	NSPS 40 CFR Part 60 Subpart LL
Mills							
Primary Mill	854 ton/hr	TBD	TBD	TBD	TBD	22110-ML-00001	A.A.C. R18-2-721
Secondary Mill	2,364 ton/hr	TBD	TBD	TBD	TBD	22120-ML-00001	A.A.C. R18-2-721
Lead Regrind Mill	101 ton/hr	TBD	TBD	TBD	TBD	22320-ML-00001	A.A.C. R18-2-721
Zinc Regrind Mill	120 ton/hr	TBD	TBD	TBD	TBD	22320-ML-00002	A.A.C. R18-2-721
Screens							
Primary Mill Discharge Screen	854 ton/hr	TBD	TBD	TBD	TBD	22110-SN-00002	NSPS 40 CFR Part 60 Subpart LL
Flotation Trash Screen	712 ton/hr	TBD	TBD	TBD	TBD	22310-SN-00001	NSPS 40 CFR Part 60 Subpart LL
Bins/Silos							
Pebble Crusher Feed Bin	220 ton/hr	TBD	TBD	TBD	TBD	22210-BN-00001	NSPS 40 CFR Part 60 Subpart LL
Mine Shaft Ore Surge Bin	675 ton/hr	TBD	TBD	TBD	TBD	21210-BN-00001	NSPS 40 CFR Part 60 Subpart LL

EQUIPMENT TYPE	MAX. CAPACITY	MAKE*	MODEL*	SERIAL NUMBER*	INSTALLATION/ MFG. DATE*	EQUIPMENT ID NUMBER	A.A.C. / NSPS / NESHAP
Pebble Crusher Product Surge Bin	220 ton/hr	TBD	TBD	TBD	TBD	22210-BN-00002	NSPS 40 CFR Part 60 Subpart LL
Tailings Weigh Bin	615 ton/hr	TBD	TBD	TBD	TBD	22540-BN-00001	A.A.C. R18-2-730
Coarse Ore Silo No. 1	675 ton/hr	TBD	TBD	TBD	TBD	21510-SI-00001	NSPS 40 CFR Part 60 Subpart LL
Coarse Ore Silo No. 2	675 ton/hr	TBD	TBD	TBD	TBD	21510-SI-00002	NSPS 40 CFR Part 60 Subpart LL
Coarse Ore Silo No. 3	675 ton/hr	TBD	TBD	TBD	TBD	21510-SI-00003	NSPS 40 CFR Part 60 Subpart LL
Conveyors							
Coarse Ore Overland Conveyor (2 Transfer Points)	675 ton/hr	TBD	TBD	TBD	TBD	21210-CV-00001	NSPS 40 CFR Part 60 Subpart LL
Coarse Ore Silo No. 1 Feed Conveyor (2 Transfer Points)	675 ton/hr	TBD	TBD	TBD	TBD	21320-CV-00002	NSPS 40 CFR Part 60 Subpart LL
Coarse Ore Silo No. 2 Feed Conveyor (2 Transfer Points)	675 ton/hr	TBD	TBD	TBD	TBD	21320-CV-00003	NSPS 40 CFR Part 60 Subpart LL
Primary Mill Feed Conveyor (5 Transfer Points)	815 ton/hr	TBD	TBD	TBD	TBD	21710-CV-00001	NSPS 40 CFR Part 60 Subpart LL
Primary Screen Discharge Conveyor (2 Transfer Points)	220 ton/hr	TBD	TBD	TBD	TBD	22210-CV-00002	NSPS 40 CFR Part 60 Subpart LL
Pebble Conveyor (2 Transfer Points)	220 ton/hr	TBD	TBD	TBD	TBD	22210-CV-00001	NSPS 40 CFR Part 60 Subpart LL
Tailings Transfer Conveyor No. 1	615 ton/hr	TBD	TBD	TBD	TBD	22540-CV-00001	A.A.C. R18-2-730
Tailings Transfer Conveyor No. 2	615 ton/hr	TBD	TBD	TBD	TBD	22540-CV-00002	A.A.C. R18-2-730

EQUIPMENT TYPE	MAX. CAPACITY	MAKE*	MODEL*	SERIAL NUMBER*	INSTALLATION/ MFG. DATE*	EQUIPMENT ID NUMBER	A.A.C. / NSPS / NESHA P
Tailings Silo Feed Conveyor	615 ton/hr	TBD	TBD	TBD	TBD	22540-CV-00010	A.A.C. R18-2-730
Tailings Paste Plant Feed Conveyor	615 ton/hr	TBD	TBD	TBD	TBD	22540-CV-00003	A.A.C. R18-2-730
Tailings Truck Loading Conveyor	615 ton/hr	TBD	TBD	TBD	TBD	22540-CV-00005	A.A.C. R18-2-730
Feeders/Chutes							
Pebble Crusher Feeder	220 ton/hr	TBD	TBD	TBD	TBD	22210-FE-00001	NSPS 40 CFR Part 60 Subpart LL
Primary Mill Feed Chute	815 ton/hr	TBD	TBD	TBD	TBD	22110-CH-00001	A.A.C. R18-2-721
Pebble Crusher Product Feeder	220 ton/hr	TBD	TBD	TBD	TBD	22210-FE-00002	NSPS 40 CFR Part 60 Subpart LL
Mine Shaft Ore Discharge Feeder	815 ton/hr	TBD	TBD	TBD	TBD	21210-FE-00001	NSPS 40 CFR Part 60 Subpart LL
Coarse Ore Silo Discharge Feeder No. 1	675 ton/hr	TBD	TBD	TBD	TBD	21710-FE-00001	NSPS 40 CFR Part 60 Subpart LL
Coarse Ore Silo Discharge Feeder No. 2	675 ton/hr	TBD	TBD	TBD	TBD	21700-FE-00002	NSPS 40 CFR Part 60 Subpart LL
Coarse Ore Silo Discharge Feeder No. 3	675 ton/hr	TBD	TBD	TBD	TBD	21700-FE-00003	NSPS 40 CFR Part 60 Subpart LL
Concentrate Feeder	70 ton/hr	TBD	TBD	TBD	TBD	22440-FE-00001	NSPS 40 CFR Part 60 Subpart LL
Tailings Silo Reclaim Feeder	615 ton/hr	TBD	TBD	TBD	TBD	22540-FE-00001	A.A.C. R18-2-730
Tailings Filter Discharge Feeder No. 1	155 ton/hr	TBD	TBD	TBD	TBD	22530-CH-00020	A.A.C. R18-2-730
Tailings Filter Discharge Feeder No. 2	155 ton/hr	TBD	TBD	TBD	TBD	22530-CH-00021	A.A.C. R18-2-730
Tailings Filter Discharge Feeder No. 3	155 ton/hr	TBD	TBD	TBD	TBD	22530-CH-00022	A.A.C. R18-2-730

EQUIPMENT TYPE	MAX. CAPACITY	MAKE*	MODEL*	SERIAL NUMBER*	INSTALLATION/ MFG. DATE*	EQUIPMENT ID NUMBER	A.A.C. / NSPS / NESHA P
Tailings Filter Discharge Feeder No. 4	155 ton/hr	TBD	TBD	TBD	TBD	22530-CH-00023	A.A.C. R18-2-730
Product Packaging Station							
Container Transport Cart Loading	70 ton/hr	TBD	TBD	TBD	TBD	22440-CB-00001	NSPS 40 CFR Part 60 Subpart LL
Dust Collectors							
Dust Collector No. 1	3,200 cfm	TBD	TBD	TBD	TBD	DC-1	NSPS 40 CFR Part 60 Subpart LL, A.A.C. R18-2-306.01
Dust Collector No. 2	4,750 cfm	TBD	TBD	TBD	TBD	DC-2	NSPS 40 CFR Part 60 Subpart LL, A.A.C. R18-2-306.01
Dust Collector No. 3	3,300 cfm	TBD	TBD	TBD	TBD	DC-3	NSPS 40 CFR Part 60 Subpart LL, A.A.C. R18-2-306.01
Dust Collector No. 4	3,300 cfm	TBD	TBD	TBD	TBD	DC-4	NSPS 40 CFR Part 60 Subpart LL, A.A.C. R18-2-306.01
Dust Collector No. 5	3,300 cfm	TBD	TBD	TBD	TBD	DC-5	NSPS 40 CFR Part 60 Subpart LL, A.A.C. R18-2-306.01
Dust Collector No. 6	7,500 cfm	TBD	TBD	TBD	TBD	DC-6	NSPS 40 CFR Part 60 Subpart LL, A.A.C. R18-2-306.01

EQUIPMENT TYPE	MAX. CAPACITY	MAKE*	MODEL*	SERIAL NUMBER*	INSTALLATION/ MFG. DATE*	EQUIPMENT ID NUMBER	A.A.C. / NSPS / NESHAP
Dust Collector No. 11	3,300 cfm	TBD	TBD	TBD	TBD	DC-11	NSPS 40 CFR Part 60 Subpart LL, A.A.C. R18-2-306.01
Paste Plant Dust Collectors							
Paste Plant Binder Silo 1	750 cfm	TBD	TBD	TBD	TBD	DC-PPBS1	A.A.C. R18-2-721
Paste Plant Binder Silo 2	750 cfm	TBD	TBD	TBD	TBD	DC-PPBS2	A.A.C. R18-2-721
Paste Plant Binder Silo 3	1,500 cfm	TBD	TBD	TBD	TBD	DC-PPBS3	A.A.C. R18-2-721
Paste Plant Binder Silo 4	1,500 cfm	TBD	TBD	TBD	TBD	DC-PPBS4	A.A.C. R18-2-721
Paste Plant Module 1 Mixer	3,000 cfm	TBD	TBD	TBD	TBD	DC-PPM1M	A.A.C. R18-2-721
Paste Plant Module 2 Mixer	3,000 cfm	TBD	TBD	TBD	TBD	DC-PPM2M	A.A.C. R18-2-721
Storage Tanks							
MIBC/F-549 Storage Tank	7,925 gal	TBD	TBD	TBD	TBD	22620-TN-00001	A.A.C. R18-2-730
Test Reagent Storage Tank	6,604 gal	TBD	TBD	TBD	TBD	22620-TN-00002	A.A.C. R18-2-730
Slovay 5100 Storage Tank	6,604 gal	TBD	TBD	TBD	TBD	22620-TN-00003	A.A.C. R18-2-730
Copper Sulphate Mix Tank	2,642 gal	TBD	TBD	TBD	TBD	22620-TN-00005	A.A.C. R18-2-730
Copper Sulphate Holding Tank	5,283 gal	TBD	TBD	TBD	TBD	22620-TN-00006	A.A.C. R18-2-730
Zinc Sulphate Mix Tank	2,642 gal	TBD	TBD	TBD	TBD	22620-TN-00007	A.A.C. R18-2-730
Zinc Sulphate Holding Tank	5,283 gal	TBD	TBD	TBD	TBD	22620-TN-00008	A.A.C. R18-2-730
Zinc Cyanide Mix Tank	2,642 gal	TBD	TBD	TBD	TBD	22620-TN-00009	A.A.C. R18-2-730

ATTACHMENT “C”: EQUIPMENT LIST

EQUIPMENT TYPE	MAX. CAPACITY	MAKE*	MODEL*	SERIAL NUMBER*	INSTALLATION/ MFG. DATE*	EQUIPMENT ID NUMBER	A.A.C. / NSPS / NESHAP
Zinc Cyanide Holding Tank	3,963 gal	TBD	TBD	TBD	TBD	22620-TN-00010	A.A.C. R18-2-730
SMBS Mix Tank	2,642 gal	TBD	TBD	TBD	TBD	22620-TN-00011	A.A.C. R18-2-730
SMBS Holding Tank	5,283 gal	TBD	TBD	TBD	TBD	22620-TN-00012	A.A.C. R18-2-730
Tailings Flocculant Holding Tank	17,171 gal	TBD	TBD	TBD	TBD	22620-TN-00013	A.A.C. R18-2-730
Lead Flocculant Holding Tank	1,320 gal	TBD	TBD	TBD	TBD	22620-TN-00014	A.A.C. R18-2-730
Zinc Flocculant Holding Tank	1,320 gal	TBD	TBD	TBD	TBD	22620-TN-00015	A.A.C. R18-2-730
3418-A Storage Tank	6,604 gal	TBD	TBD	TBD	TBD	22620-TN-00004	A.A.C. R18-2-730
Shaft ANE Storage Tank	10,293 gal	TBD	TBD	TBD	TBD	TNK-061	A.A.C. R18-2-730
Fuel Tanks							
Unleaded Gasoline (S32) T-01	1,000 gal	TBD	TBD	TBD	TBD	T-01	A.A.C. R18-2-710 (POS, AOS1, and AOS 2) or NESHAP 40 CFR Part 63 Subpart CCCCCC (AOS 1)
Diesel (Red Dyed S32) T-02	5,000 gal	TBD	TBD	TBD	TBD	T-02	A.A.C. R18-2-710
Diesel (Red Dyed S32) T-03	5,000 gal	TBD	TBD	TBD	TBD	T-03	A.A.C. R18-2-710
Diesel (Red Dyed Rummel) T-04	12,000 gal	TBD	TBD	TBD	TBD	T-04	A.A.C. R18-2-710



ATTACHMENT "C": EQUIPMENT LIST

EQUIPMENT TYPE	MAX. CAPACITY	MAKE*	MODEL*	SERIAL NUMBER*	INSTALLATION/ MFG. DATE*	EQUIPMENT ID NUMBER	A.A.C. / NSPS / NESHAP
Unleaded Gasoline (Rummel) T-05	1,000 gal	TBD	TBD	TBD	TBD	T-05	A.A.C. R18-2-710 (POS, AOS1, and AOS 2) or NESHAP 40 CFR Part 63 Subpart CCCCCC (AOS 1)
Diesel (Rummel) T-06	1,000 gal	TBD	TBD	TBD	TBD	T-06	A.A.C. R18-2-710
Unleaded Gasoline T-07	10,000 gal	TBD	TBD	TBD	TBD	T-07	A.A.C. R18-2-710 (POS, AOS1, and AOS 2) or NESHAP 40 CFR Part 63 Subpart CCCCCC (AOS 1)
Unleaded Gasoline T-08	10,000 gal	TBD	TBD	TBD	TBD	T-08	A.A.C. R18-2-710 (POS, AOS1, and AOS 2) or NESHAP 40 CFR Part 63 Subpart CCCCCC (AOS 1)
Unleaded Gasoline T-09	10,000 gal	TBD	TBD	TBD	TBD	T-09	A.A.C. R18-2-710 (POS, AOS1, and AOS 2) or NESHAP 40 CFR Part 63 Subpart CCCCCC (AOS 1)
Diesel T-10	50,000 gal	TBD	TBD	TBD	TBD	T-10	A.A.C. R18-2-710
Diesel T-11	50,000 gal	TBD	TBD	TBD	TBD	T-11	A.A.C. R18-2-710
Concrete Batch Plant							
Concrete Batch Plant	40,274 tpy	TBD	TBD	TBD	TBD	CBP	A.A.C. R18-2-723
Generators							



ATTACHMENT "C": EQUIPMENT LIST

EQUIPMENT TYPE	MAX. CAPACITY	MAKE*	MODEL*	SERIAL NUMBER*	INSTALLATION/ MFG. DATE*	EQUIPMENT ID NUMBER	A.A.C. / NSPS / NESHAP
Natural Gas Engine CAT 3520 DSL 2600 kW (58)	2600 KW	Caterpillar	3520 DSL	TBD	TBD	T_ENG	NSPS 40 CFR Part 60 Subpart JJJJ and NESHAP 40 CFR Part 63 Subpart ZZZZ
Natural Gas Engine JGC 624 4481 kW (27)	4481 KW	INNIO Jenbacher	J624	TBD	TBD	T_ENG_ALT	NSPS 40 CFR Part 60 Subpart JJJJ and NESHAP 40 CFR Part 63 Subpart ZZZZ
Diesel CAT XQ1140 (6)	910 KW	Caterpillar	XQ1140	TBD	TBD	HS_1 - HS_6	NSPS 40 CFR Part 60 Subpart IIII and NESHAP 40 CFR Part 63 Subpart ZZZZ
Diesel C200D2RE	198 KW	Cummins	QSB7-G9	TBD	TBD	ENG5	NSPS 40 CFR Part 60 Subpart IIII
Emergency Diesel CAT C175 3000 kW (5)	3000 KW	Caterpillar	C175-16	TBD	TBD	ENG9 - ENG13	NSPS 40 CFR Part 60 Subpart JJJJ and NESHAP 40 CFR Part 63 Subpart ZZZZ
WTP2 Cooling Towers							
WTP2 CT Cell 1	563 gal/min	TBD	TBD	TBD	TBD	WTP2CT1	A.A.C. R18-2-730
WTP2 CT Cell 2	563 gal/min	TBD	TBD	TBD	TBD	WTP2CT2	A.A.C. R18-2-730
WTP2 CT Cell 3	563 gal/min	TBD	TBD	TBD	TBD	WTP2CT3	A.A.C. R18-2-730
WTP2 CT Cell 4	563 gal/min	TBD	TBD	TBD	TBD	WTP2CT4	A.A.C. R18-2-730
WTP2 CT Cell 5	563 gal/min	TBD	TBD	TBD	TBD	WTP2CT5	A.A.C. R18-2-730
WTP2 CT Cell 6	563 gal/min	TBD	TBD	TBD	TBD	WTP2CT6	A.A.C. R18-2-730

EQUIPMENT TYPE	MAX. CAPACITY	MAKE*	MODEL*	SERIAL NUMBER*	INSTALLATION/ MFG. DATE*	EQUIPMENT ID NUMBER	A.A.C. / NSPS / NESHAP
WTP2 CT Cell 7	563 gal/min	TBD	TBD	TBD	TBD	WTP2CT7	A.A.C. R18-2-730
WTP2 CT Cell 8	563 gal/min	TBD	TBD	TBD	TBD	WTP2CT8	A.A.C. R18-2-730
Surface Refrigeration Plant							
Cooling Tower Cell 1	1,882 gal/min	TBD	TBD	TBD	TBD	Cooling Tower Cell 1	A.A.C. R18-2-730
Cooling Tower Cell 2	1,882 gal/min	TBD	TBD	TBD	TBD	Cooling Tower Cell 2	A.A.C. R18-2-730
Cooling Tower Cell 3	1,882 gal/min	TBD	TBD	TBD	TBD	Cooling Tower Cell 3	A.A.C. R18-2-730
Cooling Tower Cell 4	1,882 gal/min	TBD	TBD	TBD	TBD	Cooling Tower Cell 4	A.A.C. R18-2-730
UG Refrigeration CT Cell 1	2,774 gal/min	TBD	TBD	TBD	TBD	UG Refrigeration CT Cell 1	A.A.C. R18-2-730
UG Refrigeration CT Cell 2	2,774 gal/min	TBD	TBD	TBD	TBD	UG Refrigeration CT Cell 2	A.A.C. R18-2-730
UG Refrigeration CT Cell 3	2,774 gal/min	TBD	TBD	TBD	TBD	UG Refrigeration CT Cell 3	A.A.C. R18-2-730
UG Refrigeration CT Cell 4	2,774 gal/min	TBD	TBD	TBD	TBD	UG Refrigeration CT Cell 4	A.A.C. R18-2-730
Gasoline Dispensing Facilities							
Aboveground Gasoline Dispensing Facility	150,000 gal/yr	TBD	TBD	TBD	TBD	AGGDF	A.A.C. R18-2-710 (POS, AOS 1, and AOS 2) or NESHAP 40 CFR Part 63 Subpart CCCCC (AOS 1)

EQUIPMENT TYPE	MAX. CAPACITY	MAKE*	MODEL*	SERIAL NUMBER*	INSTALLATION/ MFG. DATE*	EQUIPMENT ID NUMBER	A.A.C. / NSPS / NESHP
Evaporators							
Mechanical Evaporator 1	66 gal/min	TBD	TBD	TBD	TBD	MEVAP1	A.A.C. R18-2-730
Mechanical Evaporator 2	66 gal/min	TBD	TBD	TBD	TBD	MEVAP2	A.A.C. R18-2-730
Mechanical Evaporator 3	66 gal/min	TBD	TBD	TBD	TBD	MEVAP3	A.A.C. R18-2-730
Process Tanks							
Lead Rougher	3300 ton/hr	TBD	TBD	TBD	TBD	22310-FC-00001	A.A.C. R18-2-721
Lead Rougher Scavenger	3300 ton/hr	TBD	TBD	TBD	TBD	22310-FC-00004	A.A.C. R18-2-721
Lead Cleaner Scalper	305 ton/hr	TBD	TBD	TBD	TBD	22310-FC-00008	A.A.C. R18-2-721
Lead Cleaner	285 ton/hr	TBD	TBD	TBD	TBD	22310-FC-00007	A.A.C. R18-2-721
Lead Cleaner Scavenger	270 ton/hr	TBD	TBD	TBD	TBD	22310-FC-00009	A.A.C. R18-2-721
Zinc Rougher	3300 ton/hr	TBD	TBD	TBD	TBD	22310-FC-00005	A.A.C. R18-2-721
Zinc Rougher Scavenger	3300 ton/hr	TBD	TBD	TBD	TBD	22310-FC-00006	A.A.C. R18-2-721
Zinc Cleaner Scalper	1600 ton/hr	TBD	TBD	TBD	TBD	22310-FC-00011	A.A.C. R18-2-721
Zinc Cleaner	1650 ton/hr	TBD	TBD	TBD	TBD	22310-FC-00010	A.A.C. R18-2-721
Zinc Cleaner Scavenger	1700 ton/hr	TBD	TBD	TBD	TBD	22310-FC-00012	A.A.C. R18-2-721
Zinc Conditioning Tank No. 1	3300 ton/hr	TBD	TBD	TBD	TBD	22300-TNK-002	A.A.C. R18-2-721
Zinc Conditioning Tank No. 2	3300 ton/hr	TBD	TBD	TBD	TBD	22300-TNK-003	A.A.C. R18-2-721

ATTACHMENT “C”: EQUIPMENT LIST

EQUIPMENT TYPE	MAX. CAPACITY	MAKE*	MODEL*	SERIAL NUMBER*	INSTALLATION/ MFG. DATE*	EQUIPMENT ID NUMBER	A.A.C. / NSPS / NESHP
Feed Stabilization Tank	3300 ton/hr	TBD	TBD	TBD	TBD	22300-TNK-008	A.A.C. R18-2-721
Lead Concentrate De-Aeration Tank	200 ton/hr	TBD	TBD	TBD	TBD	22420-TNK-004	A.A.C. R18-2-721
Lead Concentrate Thickener Overflow Tank	150 ton/hr	TBD	TBD	TBD	TBD	22420-TNK-005	A.A.C. R18-2-721
Lead Concentrate Tank	75 ton/hr	TBD	TBD	TBD	TBD	22430-TNK-011	A.A.C. R18-2-721
Zinc Concentrate De-Aeration Tank	225 ton/hr	TBD	TBD	TBD	TBD	22420-TNK-006	A.A.C. R18-2-721
Zinc Concentrate Thickener Overflow Tank	150 ton/hr	TBD	TBD	TBD	TBD	22420-TNK-007	A.A.C. R18-2-721
Zinc Concentrate Tank	100 ton/hr	TBD	TBD	TBD	TBD	22430-TNK-014	A.A.C. R18-2-721
Cyanide Destruction Tank No. 1	2300 ton/hr	TBD	TBD	TBD	TBD	22510-TNK-021	A.A.C. R18-2-721
Cyanide Destruction Tank No. 2	2300 ton/hr	TBD	TBD	TBD	TBD	22510-TNK-022	A.A.C. R18-2-721
Tailings Stock Tank	1000 ton/hr	TBD	TBD	TBD	TBD	22530-TNK-024	A.A.C. R18-2-721
Tailings Filtrate Collection Tank	150 ton/hr	TBD	TBD	TBD	TBD	22530-TNK-025	A.A.C. R18-2-721
Scrubber							
Caustic Scrubber	N/A	TBD	TBD	TBD	TBD	22600-FAN-051	A.A.C. R18-2-730
Clark Site							
Crushers							
Primary Crusher	121 ton/hr	Sandvik	QJ241	TBD	TBD	22310-CRU-0001	NSPS 40 CFR Part 60 Subpart LL
Feeders/Chutes							

EQUIPMENT TYPE	MAX. CAPACITY	MAKE*	MODEL*	SERIAL NUMBER*	INSTALLATION/ MFG. DATE*	EQUIPMENT ID NUMBER	A.A.C. / NSPS / NESHAP
Primary Crusher Discharge Feed Chute	121 ton/hr	TBD	TBD	TBD	TBD	23100-CHU-0001	NSPS 40 CFR Part 60 Subpart LL
Primary Crusher Discharge Head Chute	121 ton/hr	TBD	TBD	TBD	TBD	23100-CHU-0002	NSPS 40 CFR Part 60 Subpart LL
Primary Crusher Chute	121 ton/hr	TBD	TBD	TBD	TBD	23100-CHU-0003	NSPS 40 CFR Part 60 Subpart LL
Coarse Ore Conveyor Head Chute	121 ton/hr	TBD	TBD	TBD	TBD	23100-CHU-0004	NSPS 40 CFR Part 60 Subpart LL
Coarse Ore Discharge Feeder	121 ton/hr	TBD	TBD	TBD	TBD	23100-FDR-0003	NSPS 40 CFR Part 60 Subpart LL
Discharge Feeder Chute	121 ton/hr	TBD	TBD	TBD	TBD	23100-CHU-0005	NSPS 40 CFR Part 60 Subpart LL
Dust Collectors							
Dust Collector No. 7	3,200 cfm	TBD	TBD	TBD	TBD	DC-7	NSPS 40 CFR Part 60 Subpart LL, A.A.C. R18-2-306.01
Dust Collector No. 8	3,200 cfm	TBD	TBD	TBD	TBD	DC-8	NSPS 40 CFR Part 60 Subpart LL, A.A.C. R18-2-306.01
Dust Collector No. 10	3,200 cfm	TBD	TBD	TBD	TBD	DC-10	NSPS 40 CFR Part 60 Subpart LL, A.A.C. R18-2-306.01
Bins/Silos							
Coarse Ore Silo	121 ton/hr	TBD	TBD	TBD	TBD	23100-SLO-0003	NSPS 40 CFR Part 60 Subpart LL
Screens							
Primary Crusher Grizzly Screen	121 ton/hr	TBD	TBD	TBD	TBD	23100-SCN-0001	NSPS 40 CFR Part 60 Subpart LL

EQUIPMENT TYPE	MAX. CAPACITY	MAKE*	MODEL*	SERIAL NUMBER*	INSTALLATION/ MFG. DATE*	EQUIPMENT ID NUMBER	A.A.C. / NSPS / NESHAP
Conveyors							
Primary Crusher Discharge Conveyor (1 Transfer Point)	121 ton/hr	TBD	TBD	TBD	TBD	23100-CVR-0001	NSPS 40 CFR Part 60 Subpart LL
Coarse Ore Conveyor (1 Transfer Point)	121 ton/hr	TBD	TBD	TBD	TBD	23100-CVR-0002	NSPS 40 CFR Part 60 Subpart LL
Truck Unloading Station							
ROM Truck Unloading	121 ton/hr	TBD	TBD	TBD	TBD	TUD-1	NSPS 40 CFR Part 60 Subpart LL
Paste Plant							
Paste Plant Binder Silo 1	750 cfm	TBD	TBD	TBD	TBD	DC-CPPBS1	A.A.C. R18-2-721
Paste Plant Binder Silo 2	750 cfm	TBD	TBD	TBD	TBD	DC-CPPBS2	A.A.C. R18-2-721
Paste Plant Binder Silo 3	1,500 cfm	TBD	TBD	TBD	TBD	DC-CPPBS3	A.A.C. R18-2-721
Paste Plant Binder Silo 4	1,500 cfm	TBD	TBD	TBD	TBD	DC-CPPBS4	A.A.C. R18-2-721
Paste Plant Module 1 Mixer	3,000 cfm	TBD	TBD	TBD	TBD	DC-CPPM1M	A.A.C. R18-2-721
Paste Plant Module 2 Mixer	3,000 cfm	TBD	TBD	TBD	TBD	DC-CPPM2M	A.A.C. R18-2-721
Concrete Batch Plant							
Concrete Batch Plant	1,984 tpy	TBD	TBD	TBD	TBD	CBP - C	A.A.C. R18-2-723
Gasoline Dispensing Facilities							
Aboveground Gasoline Dispensing Facility	73,500 gal/yr	TBD	TBD	TBD	TBD	AGGDF-C	A.A.C. R18-2-710 (POS, AOS1, and AOS 2) or NESHAP NSPS 40 CFR Part 63 Subpart CCCCCC (AOS 1)
Dust Collectors - Miscellaneous							



ATTACHMENT "C": EQUIPMENT LIST

EQUIPMENT TYPE	MAX. CAPACITY	MAKE*	MODEL*	SERIAL NUMBER*	INSTALLATION/ MFG. DATE*	EQUIPMENT ID NUMBER	A.A.C. / NSPS / NESHAP
Waste Water Treatment Plant #1 Lime Silo	1,001 cfm	TBD	TBD	TBD	TBD	WTP1LS	A.A.C. R18-2-730

*TBD – To Be Determined.

ATTACHMENT “D”: DUST CONTROL PLAN

ATTACHMENT "E": TAILINGS MANAGEMENT PLAN