

## CLASS I AIR QUALITY PERMIT

**DRAFT PERMIT No. 90574**

**PERMITTEE:** Golden Vertex Corp.  
**FACILITY:** Moss Mine  
**PLACE ID:** 143836  
**DATE ISSUED:**  
**EXPIRY DATE:**

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### SUMMARY

This Class I air quality permit is issued to Golden Vertex Corp, the Permittee, for the continued operation of Moss Mine. The facility is located approximately 8 miles east of Bullhead City, in Mohave County. This permit renews and supersedes Permit #64302.

The facility's potential to emit (PTE) air pollutants is greater than the major source threshold for CO the source requires a Class I permit based on the PTE of CO and an applicable regulation, National Emission Standards for Hazardous Air Pollutants (NESHAP), Subpart EEEEEEE, Gold Mine Ore Processing and Production Area Source Category, requires the Permittee to obtain a Title V permit.

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

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**ATTACHMENT "A": GENERAL PROVISIONS**

**I. PERMIT EXPIRATION AND RENEWAL**

- A.** This permit is valid for a period of five (5) years from the date of issuance.  
[ARS § 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]

2. Additional requirements, including excess emissions requirements, become applicable to an affected source under the acid rain program. Upon approval by the Administrator, excess emissions offset plans shall be deemed to be incorporated into the Class I permit;  
[A.A.C. R18-2-321.A.1.b]
  3. The Director or the Administrator determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit; and  
[A.A.C. R18-2-321.A.1.c]
  4. The Director or the 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 ARS § 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]

## 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 15<sup>th</sup>, and shall report the compliance status of the source during the period between October 1<sup>st</sup> of the previous year and March 31<sup>st</sup> of the current year. The second certification shall be submitted no later than November 15<sup>th</sup>, and shall report the compliance status of the source during the period between April 1<sup>st</sup> and September 30<sup>th</sup> 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,

[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 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 and 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 these provisions according to the time line 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 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, 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 working days of discovery of the deviation is prompt for deviations of permit conditions identified by Condition I.B 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 semi-annual 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. Compliance Schedule**

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

[ARS § 49-426.I.3]

**E. 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.E.3.b below, and unless otherwise provided for in the applicable requirement, emissions in excess of an applicable emission limitation due to startup and shutdown shall constitute a violation. When emissions in excess of an applicable emission limitation are due to startup and shutdown, the Permittee has an affirmative defense to a civil or administrative enforcement proceeding based on that violation, other than a judicial action seeking injunctive relief, if the Permittee has complied with the reporting requirements of A.A.C. R18-2-310.01 and has demonstrated all of the following:  
[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]

**XII. RECORDKEEPING REQUIREMENTS**

- (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.E.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.E.2 above.  
[A.A.C. R18-2-310.D]
5. Demonstration of Reasonable and Practicable Measures
- For an affirmative defense under Condition XI.E.2 or XI.E.3, the Permittee shall demonstrate, through submission of the data and information required by this Condition XI.E 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]

**C. REPORTING REQUIREMENTS**

The Permittee shall submit the following reports:

- D.** Compliance certifications in accordance with Section VII above.  
[A.A.C. R18-2-306.A.5.a]
- E.** Excess emission; permit deviation, and emergency reports in accordance with Section XI above.  
[A.A.C. R18-2-306.A.5.b]
- F.** Other reports required by any condition of Attachment “B”.

**XIII. 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 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]

**XIV. 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 XV 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.

**XV. FACILITY CHANGE 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 XV.A, C, and D of this Attachment. [A.A.C. R18-2-317.B]

- C.** For each change under Conditions XV.A and XV.B above, a written notice by certified mail or hand delivery shall be received by the Director and the Administrator a minimum of 7 working days in advance of the change. Notifications of changes associated with emergency conditions, such as malfunctions necessitating the replacement of equipment, may be provided less than 7 working days in advance of the change, but must be provided as far in advance of the change, as possible or, if advance notification is not practicable, as soon after the change as possible.
- [A.A.C. R18-2-317.D]
- D.** Each notification shall include:
1. When the proposed change will occur;
  2. A description of the change;
  3. Any change in emissions of regulated air pollutants; and
  4. Any permit term or condition that is no longer applicable as a result of the change.
- [A.A.C. R18-2-317.E.1]  
[A.A.C. R18-2-317.E.2]  
[A.A.C. R18-2-317.E.3]  
[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 XV.
- [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 XV.
- [A.A.C. R18-2-317.G]
- G.** Notwithstanding any other part of Section XV, 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 XV over the term of the permit, do not satisfy Condition XV.A above.
- [A.A.C. R18-2-317.H]

## **XVI. TESTING REQUIREMENTS**

- A.** Except as provided in Condition XVI.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 XVI.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 XVI.H.1, 2, and 3 above, the Permittee remains subject to the requirements of Section XVI.

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

5. For purposes of this Section XVI, 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]

## **XVII. 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]

## **XVIII. 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]

## **XIX. 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 XIV.B of this Attachment and any facility changes without a permit revision pursuant to Condition XV of this Attachment.

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

## **XX. PROTECTION OF STRATOSPHERIC OZONE**

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

[40 CFR Part 82]

## **XXI. 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. FACILITY-WIDE REQUIREMENTS**

**A. Opacity**

**1. Instantaneous Surveys and Six-Minute Observations**

**a. Instantaneous Surveys**

Any instantaneous survey required by this permit shall be determined by either option listed in Conditions I.A.1.a(1) and (2):

[A.A.C. R18-2-311.b]

**(1) Alternative Method ALT-082 (Digital Camera Operating Technique)**

**(a)** The Permittee, or Permittee representative, shall be certified in the use of Alternative Method ALT-082.

**(b)** The results of all instantaneous surveys and six-minute observations shall be obtained within 30 minutes.

**(2) EPA Reference Method 9 Certified Observer.**

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

**b. Six-Minute Observations**

Any six-minute observation required by this permit shall be determined by either option listed in Conditions I.A.1.b(1) and (2):

[A.A.C. R18-2-311.b]

**(1) Alternative Method ALT-082 (Digital Camera Operating Technique)**

**(a)** The Permittee, or Permittee representative, shall be certified in the use of Alternative Method ALT-082.

**(b)** The results of all instantaneous surveys and six-minute observations shall be obtained within 30 minutes.

**(2) EPA Reference Method 9.**

**c.** The Permittee shall have on site or on call a person certified in EPA Reference Method 9 unless all six-minute Method 9 observations required by this permit are conducted as a six-minute Alternative Method ALT-082 (Digital Camera Operating Technique) and all instantaneous visual surveys required by this permit are conducted as an instantaneous ALT-082 camera survey. Any six-minute Method 9 observation required by this permit can be conducted as a six-minute Alternative Method ALT-082

I. FACILITY-WIDE REQUIREMENTS

and any instantaneous visual survey required by this permit can be conducted as an instantaneous ALT-082 camera survey.

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

2. Monitoring, Recordkeeping, and Reporting Requirements

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

- 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.

**B. Reporting Requirements**

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]

1. Conditions II.B.2.a, b, and c

2. II.B.3.b and c
3. Condition III.B and III.D.1
4. Condition IV.B.2.a and b

**C. Operating Limitations**

1. *The Permittee shall not exceed 4.1 million tons annual throughput, measured as output from the primary crushing circuit on a rolling 12-month total.*  
[A.A.C. R18-2-306.01 and -331.A.3.a]  
[Material permit conditions are indicated by underline and italics]
2. The Permittee shall operate the facility equipment identified in Attachment “C” in accordance with vendor-supplied operations and maintenance instructions. If vendor-supplied operations and maintenance instructions are not available, the Permittee shall prepare an Operation and Maintenance Plan, which provides adequate information to properly operate and maintain the equipment in good working order. In the absence of vendor-supplied operations and maintenance instructions, the Permittee shall operate all the equipment in accordance with the Operation and Maintenance Plan.  
[A.A.C. R18-2-306.A.3.c]
3. The Permittee shall maintain, on-site, records of the manufacturer's specifications or Operation and Maintenance Plan for minimizing emissions for all process and control equipment listed in Attachment “C”.  
[A.A.C. R18-2-306.A.4]
4. The Permittee shall maintain a record of all activities performed on process equipment and air pollution control devices that could impact air emissions.  
[A.A.C. R18-2-306.A.3.c]
5. At the time that the compliance certifications required by Section VII of Attachment “A” are submitted, the Permittee shall submit reports of all monitoring, recordkeeping and maintenance activities required by this permit performed during the compliance term.  
[A.A.C. R18-2-306.A.5]

**II. PROCESS OPERATIONS SUBJECT TO NEW SOURCE PERFORMANCE STANDARDS, - SUBPART LL**

**A. Applicability**

The requirements of this section are applicable to the equipment identified as subject to NSPS Subpart LL in the “Attachment C” Equipment List.

[40 CFR 60.380]

**B. Particulate Matter and Opacity**

1. Emission Limitations/Standards

- a. The Permittee shall not cause to be discharged into the atmosphere from an affected facility any stack emissions that:
- (1) Contain particulate matter in excess of 0.05 grams per dry standard cubic meter (0.02 gr/dscf).  
[40 CFR 60.382(a)(1)]
  - (2) Exhibit greater than 7 percent opacity, as measured by EPA Reference Method 9, unless the stack emissions are discharged from a wet scrubbing emission control device.  
[40 CFR 60.382(a)(2) and A.A.C. R18-2-331.A.f]  
[Material permit conditions are indicated by underline and italics]
- b. On and after the sixtieth day after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup, the Permittee shall not cause to be discharged into the atmosphere from an affected facility any process fugitive emissions that exhibit greater than 10 percent opacity.  
[40 CFR 60.382(b) and A.A.C. R18-2-331.A.f]  
[Material permit conditions are indicated by underline and italics]

2. Air Pollution Control Requirements

a. Dust Collectors

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

[40 CFR 60.11(d), A.A.C. R18-2-331.A.3.d & e]

[Material permit conditions are indicated by underline and italics]

- (1) Bin Vent Dust Collector 200-DC-001 on the Secondary Bin Feed Conveyor (200-CV-002) to Secondary Crushing Feed Bin (200-BN-001) transfer point;
- (2) Single Point Dust Collector 200-DC-002 on the Secondary Screen Feeder (200-FE-001) to Secondary Screen Feed Conveyor (200-CV-003) transfer point.
- (3) Dust Collector 200-DC-008 on the following;  
[A.A.C. R18-2-334.C.1.a & c]
  - (a) Secondary Screen Feed Conveyor (200-CV-003) to Secondary Screen (200-SR-001) transfer point;
  - (b) Secondary Screen (200-SR-001);
  - (c) Secondary Screen Undersize (200-SR-001) to Fine Crushing Product Conveyor (200-CV-011) transfer point;

- (d) Secondary Screen Oversize (200-SR-001) to Secondary Crusher (200-CR-001) transfer point;
- (e) Secondary Crusher (200-CR-001);
- (f) Secondary Crusher (200-CR-001) to Crusher Discharge Conveyor No. 1 (200-CV-004) transfer point;
- (g) Crusher Discharge Conveyor No. 1 (200-CV-004) to Tertiary Bin Feed Conveyor (200-CV-007) transfer point.
- (h) Tertiary Screen (200-SR-002);
- (i) Tertiary Screen (200-SR-003);
- (j) Tertiary Screen (200-SR-002) to Tertiary Crusher (200-CR-002) transfer point;
- (k) Tertiary Screen (200-SR-003) to Tertiary Crusher (200-CR-003) transfer point;
- (l) Tertiary Crusher (200-CR-002);
- (m) Tertiary Crusher (200-CR-003);
- (n) Tertiary Crusher (200-CR-002) to Crusher Discharge Conveyor No. 1 (200-CV-004) transfer point;
- (o) Tertiary Crusher (200-CR-003) to Crusher Discharge Conveyor No. 1 (200-CV-004) transfer point;
- (4) Dust Collector 200-DC-005 on the following:  
[A.A.C. R18-2-334.C.1.a & c]
  - (a) Tertiary Screen Feed Conveyor (200-CV-008) to Tertiary Screen (200-SR-002) transfer point;
  - (b) Tertiary Screen Feed Conveyor (200-CV-009) to Tertiary Screen (200-SR-003) transfer point;
- (5) Bin Vent Dust Collector 200-DC-005 on the Tertiary Bin Feed Conveyor (200-CV-007) to Tertiary Crushing Feed Bin (200-BN-002) and Tertiary Screen Feeders (200-FE-002 & 200-FE-003) and transfer points;
- (6) Single Point Dust Collector 200-DC-006 on the Tertiary Screen Feeder (200-FE-002) to Tertiary Screen Feed Conveyor (200-CV-008) transfer point.



- (7) Single Point Dust Collector 200-DC-007 on the Tertiary Screen Feeder (200-FE-003) to Tertiary Screen Feed Conveyor (200-CV-009) transfer point.

b. Water spray dust suppression systems

*At all times, including periods of startup, shutdown, and malfunction, the Permittee shall, to the extent practicable, install, maintain, and operate water spray dust suppression systems on all material processing and transferring operations not controlled by a dust collector in a manner consistent with good air pollution control practice for minimizing particulate matter emissions.*

[40 CFR 60.11(d) and A.A.C. R18-2-331.A.3.d & e, and -334.C.1.a & c]  
[Material permit conditions are indicated by underline and italics]

c. Refinery Wet Scrubber 500-DC-010

*At all times, including periods of startup, shutdown, and malfunction, the Permittee shall, to the extent practicable, install, maintain, and operate Refinery Wet Scrubber 500-DC-010 on the Melt Furnace (500-FU-001) in a manner consistent with good air pollution control practice for minimizing particulate matter emissions.*

[40 CFR 60.11(d) and A.A.C. R18-2-331.A.3.d & e]  
[Material permit conditions are indicated by underline and italics]

3. Monitoring, Recordkeeping, and Reporting Requirements

- a. A certified EPA Reference Method 9 observer shall conduct a monthly survey of visible emissions emanating from the affected facilities, when in use, following the methodology in Condition I.A.2 of this Attachment.

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

- b. *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 Refinery Wet Scrubber. The monitoring device must be certified by the manufacturer to be accurate within  $\pm 250$  pascals ( $\pm 1$ -inch water) gauge pressure and must be calibrated on an annual basis in accordance with manufacturer's instructions.*

[40 CFR 60.384.a and A.A.C. R18-2-331.A.3.c]  
[Material permit conditions are indicated by underline and italics]

- c. *The Permittee shall install, calibrate, maintain, and operate a monitoring device for the continuous measurement of the scrubbing liquid flow rate through the Refinery Wet Scrubber. The monitoring device must be certified by the manufacturer to be accurate within  $\pm 5$  percent of design scrubbing liquid flow rate and must be calibrated on at least an annual basis in accordance with manufacturer's instructions.*

[40 CFR 60.384.a and A.A.C. R18-2-331.A.3.c]  
[Material permit conditions are indicated by underline and italics]

- d. The Permittee shall record the measurements of both the change in pressure of the gas stream across the Refinery Wet Scrubber and the scrubbing liquid flow rate at least weekly.  
[A.A.C. R18-2-306.A.4]
- e. After the initial performance test of the Refinery Wet Scrubber, the Permittee, shall submit, semiannually, at the same time as the compliance certifications required by Condition VII of Attachment “A”, reports to the Director of occurrences when the measurements of the scrubber pressure loss (or gain) or liquid flow rate differ by more than  $\pm 30$  percent from the average obtained during the most recent performance test.  
[A.A.C. R18-2-306.A.5]
- f. A performance test shall be conducted once per permit term from each emission point listed in Condition II.B.2 in accordance with Condition II.B.4.  
[A.A.C. R18-2-312]

4. Testing Requirements

- a. Method 5 or 17 shall be used to determine particulate matter concentration and compliance with the particulate matter standard in Condition II.B.1.a(1) of this Attachment for each affected facility.  
[40 CFR 60.386(b)(1)]
- b. Method 9 and the procedures in 40 CFR.60.11 and -60.386(2) shall be used to determine opacity from stack emissions and process fugitive emissions, and compliance with the standards in Conditions II.B.1.a(2) and II.B.1.b of this Attachment respectively for each affected facility.  
[40 CFR 60.386(b)(2)]

5. Permit Shield

Compliance with the conditions of this Part shall be deemed compliance with 40 CFR 60.11(d), 40 CFR 60.382(a)(1), -(a)(2) and -(b), 40 CFR 60.385(a), -(b)(1) and -(b)(2), A.A.C. R18-2-312, A.A.C. R18-2-334.C.1.a and c.

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

**III. MERRILL CROWE AND REFINERY PROCESSES**

**A. Applicability**

The requirements of this section are applicable to the equipment identified as subject to 40 CFR 63 Subpart EEEEEEE under the headings of “Merrill Crowe” and “Refinery” in the “Attachment C” Equipment List.

[40 CFR 63.11640(a)]

**B. Operating Limitations**

*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.*

[40 CFR 63.11646(b), A.A.C. R18-2-306.01 and -331.A.3.d and e]  
[Material permit conditions are indicated by underline and italics]

**C. Emission Limitations/Standards**

1. The Permittee shall emit no more than 0.1 pound of mercury per ton of concentrate processed.

[40 CFR 63.11645(h)]

2. Subsequent Demonstration of Compliance

a. For compliance determinations subsequent to the initial compliance test, the Permittee shall determine the total mercury mass emissions from the melt furnace for the 12 full calendar months preceding the performance test by multiplying the test result emission rate in pounds mercury per hour (lb. Hg/hr.) by the number of one-hour periods the melt furnace operated during the 12 full calendar months preceding the completion of the performance tests.

[40 CFR 63.11646(a)(7)]

b. To determine compliance with the emission standard in Condition III.C.1, the Permittee shall divide the total mercury mass emissions, as determined per Condition III.C.2.a, by the total amount of concentrate processed in the melt furnace during the same period used to determine the total mercury mass emissions.

[40 CFR 63.11646(a)(13)(iv)]

**D. Air Pollution Control Requirements**

1. *At all times, including periods of startup, shutdown, and malfunction, the Permittee shall, to the extent practicable, install, maintain, and operate the Refinery Wet Scrubber (500-DC-010) in a manner consistent with good air pollution control practice for minimizing emissions.*

[40 CFR 63.11646(b), A.A.C. R18-2-306.A.2 and -331.A.3.d & e]  
[Material permit conditions are indicated by underline and italics]

2. The Permittee shall establish a minimum value as the operating limit for water flow rate and gas-side pressure drop according to one of the following;

[40 CFR 63.111647(h) and A.A.C. R18-2-306.A.2]

a. Based on the results of the performance test required by Condition III.F, the operating limit shall be established as either the lowest value during any test run or 10 percent less than the average value measured during the test; or

b. Based on manufacturer's specifications.

**E. Monitoring, Recordkeeping and Reporting Requirements**

1. The Permittee shall determine the weight of concentrate used in Condition III.C.2.b per the following procedures:
  - a. The Permittee shall weigh each batch of Merrill Crowe process concentrate prior to being fed to the melt furnace before drying in any ovens.  
 [40 CFR 63.11646(a)(9)]
  - b. The Permittee shall keep records of the weights of each batch of concentrate processed and calculate, and record the total weight in tons of concentrate processed on a daily and monthly basis.  
 [40 CFR 63.11646(a)(9), and –(11)]
  - c. *The Permittee shall maintain the systems for measuring weight within ±5 percent accuracy. The Permittee shall maintain documentation and written procedures which describe the specific equipment used to make the weight measurements, how that equipment is periodically calibrated, and how the accuracy of these measurements is determined. The Permittee shall determine, record, and maintain a record of the accuracy of the measuring systems before the beginning of your initial compliance test and during each subsequent quarter of affected source operation. The Permittee shall make these written procedures and records available to ADEQ upon request.*  
 [40 CFR 63.11646(a)(10), A.A.C R18-2-331.A.3.c]  
 [Material permit conditions are indicated by underline and italics]
2. The Permittee shall monitor and record the number of one-hour periods the melt furnace (500-FU-001) operates during each month.  
 [40 CFR 63.11646(a)(5)]
3. The Permittee shall monitor and record the water flow rate and gas stream pressure drop of the Refinery Wet Scrubber once per shift and take corrective action within 24 hours if any daily average is less than the operating limit established per Condition III.D.2. If the parameters are not in range within 72 hours, the Permittee shall report the deviation to the Director and perform a compliance test per Condition III.F within 40 days to determine if the affected source is in compliance with the emission standard of Condition III.C.1.  
 [40 CFR 63.11647(h), A.A.C. R18-2-306.A.2 and A.5]

**F. Melt Furnace Testing Requirements**

1. The Permittee shall conduct repeat mercury compliance emission testing annually, with no two consecutive annual tests occurring less than 3 months apart or more than 15 months apart.  
 [40 CFR 63.11646(a)]
2. The testing shall be performed according to the methods and procedures identified in 40 CFR 63.11646(a)(1) through –(a)(4).  
 [40 CFR 63.11646(a)(1)]

**G. Permit Shield**

Compliance with the conditions of this Part shall be deemed compliance with 40 CFR 63.11641 (a), -(a)(1), 40 CFR 63.11645(h), 40 CFR 63.11646(a), -(a)(5), -(a)(6), (a)(7), -(a)(9), -(a)(10), -(a)(11), -(a)(12), -(a)(12)(iv), -(a)(13)(iv), (b) and 40 CFR 63.11647(h).  
[A.A.C. R18-2-325]

**IV. REQUIREMENTS FOR UNCLASSIFIED SOURCES**

**A. Applicability**

The requirements of this section are applicable to the equipment identified as subject to A.A.C. R18-2-730 in the “Attachment C” Equipment List.  
[A.A.C. R18-2-702.A]

**B. Emission Limitation/ Standards**

**1. Particulate Matter and Opacity**

a. The Permittee shall not cause or permit the emission of particulate matter into the atmosphere except as fugitive emissions in any one hour in total quantities in excess of the amount determined by one of the following equations:  
[A.A.C. R18-2-730.A.1]

(1) For process weight rates of 60,000 lb./hr. (30 tons/hour) or less:

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

where:

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

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

(2) For process weight rates greater than 60,000 lb./hr. (30 tons/hour):

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

where E and P are as defined above.

b. For purposes of this Condition, 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. Actual values shall be calculated from the applicable equations and rounded off to two decimal places.

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

- c. The Permittee shall not cause, allow or permit visible emissions, from any point source, in excess of 20 percent opacity, as determined by EPA Reference Method 9 in 40 CFR 60, Appendix A. If the presence of uncombined water is the only reason for an exceedance of the visible emissions requirement, the exceedance shall not constitute a violation of the opacity limit.

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

2. Air Pollution Control Requirements

a. Dust Collectors

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

[A.A.C. R18-2-306.A2]

[Material permit conditions are indicated by underline and italics]

- (1) Dust Collector 250-DC-001 on Cement Storage Silo 250-BN-001;
- (2) Dust Collector 400-DC-004 on Body Feed Tank 400-TK-004; and
- (3) Dust Collector 400-DC-005 on Pre-Coat Tank 400-TK-005.

b. Water Spray Dust Suppression Systems

*At all times, including periods of startup, shutdown, and malfunction, the Permittee shall, to the extent practicable, install, maintain, and operate water spray dust suppression systems on the following operations in a manner consistent with good air pollution control practice for minimizing particulate matter emissions;*

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

[Material permit conditions are indicated by underline and italics]

- (1) Agglomeration Conveyor;
- (2) Agglomerated Product Conveyors; and
- (3) Stockpile Feed Conveyor.

3. Permit Shield

Compliance with the conditions of this Part shall be deemed compliance with A.A.C.R18-2-702.B.3 and -C, A.A.C. R18-2-730.A.1, -B and -C.

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

C. Volatile Organic Compounds (VOCs)

1. The Permittee shall not emit or cause to be emitted into the atmosphere gases or odorous materials in concentrations as to cause air pollution.  
[A.A.C.R8-2-730.D]
2. Materials including solvents or other volatile organic compounds, paints, acids, alkalis, pesticides, fertilizers shall be processed, stored, used and transported in such a manner and by such means that they will not evaporate, leak, escape, or otherwise discharged into the ambient air so as to cause or contribute to air pollution. Where means are available to reduce effectively the contributions 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]
3. Permit Shield  
  
Compliance with the conditions of this Part shall be deemed compliance with A.A.C.R18-2-730.D and F.  
[A.A.C.R18-2-325]

**V. MELT FURNACE OIL BURNER**

**A. Applicability**

This section is applicable to the oil burner component of the Melt Furnace 500-FU-001.  
[A.A.C. R18-2-724.A]

**B. Fuel Requirements**

1. The Permittee shall burn only distillate oil (Fuel Oil No. 1 or No. 2) in the melt furnace oil burner.  
[A.A.C. R18-2-306.A.2]
2. The Permittee shall not burn high sulfur oil (0.09 percent or greater by weight sulfur) in the oil burner.  
[A.A.C. R18-2-724.G]

**C. Emission Limitations and Standards**

1. Particulate Matter

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

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

Where:

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

Q = the heat input in million Btu per hour.

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

2. Opacity

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

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

**D. Monitoring, Recordkeeping and Reporting**

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

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

2. A certified EPA Reference Method 9 observer shall conduct a monthly survey of visible emissions emanating from the affected facilities, when in use, following the methodology in Condition I.A.2 of this Attachment.

[A.A.C. R18-2-306.A.3.c, and -724.J]

**E. Permit Shield**

Compliance with the conditions of this Part shall be deemed compliance with A.A.C. R18-2-724.C.1, -724.G and -724.J.

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

**VI. REQUIREMENTS FOR RECIPROCATING INTERNAL COMBUSTION ENGINES**

**A. Applicability**

This Section applies to compression ignition reciprocating internal combustion engines (CI- RICE) identified as Subject to NSPS Subpart IIII in the Equipment List, Attachment "C".

[40 CFR 60.4200(a)(2)]

**B. Operating Requirements**

1. The Permittee shall not cause to be combusted in the diesel-fired CI-RICE any fuel other than No. 2 diesel fuel that meets the requirements of 40 CFR 1090.305 for non-road diesel fuel.

[40 CFR 60.4207(b)]

2. The Permittee shall operate and maintain the CI-RICE to comply with the emission standards as required in Condition VI.C over the entire life of the engine.

[40 CFR 60.4206]

a. The Permittee shall operate and maintain the CI-RICE and any control device according to the manufacturer's emission-related written instructions, or demonstrate compliance in accordance with Condition VI.D.2.



[40 CFR 60.4211(a)(1), and -4211(g)]

- b. The Permittee shall change only those emission-related settings that are permitted by the manufacturer, or demonstrate compliance in accordance with Condition VI.D.2.

[40 CFR 60.4211(a)(2), and -4211(g)]

- c. The Permittee shall meet the requirements of 40 CFR parts 1068, as they apply. This includes but is not limited to the following:

[40 CFR 60.4211(a)(3)]

- (1) The Permittee shall not remove or render inoperative any device or element of design installed on or in engines in compliance with the regulations prior to its sale, and after such sale and delivery to the ultimate purchaser. This includes, for example, operating an engine without a supply of appropriate quality urea if the emission control system relies on urea to reduce NO<sub>x</sub> emissions or the use of incorrect fuel or engine oil that renders the emission control system inoperative.

[40 CFR 60.4211(a)(3) ; 40 CFR 1068.101(b)(1)]

- (2) The Permittee shall not remove or alter an emission control information label or other required permanent label except as specified in 40 CFR 1068.101(b)(7).

[40 CFR 60.4211(a)(3) ; 40 CFR 1068.101(b)(7)]

**C. Emission Standards and Limitations**

1. The Permittee shall comply with the following emission standards for new CI engines in §60.4201 for their 2007 model year and later stationary CI ICE, as applicable.

[40 CFR 60.4204(b)]

Engine	Model Year	CO (g/kW-hr)	NO <sub>x</sub> (g/kW-hr)	NMHC (g/kW-hr)	NMHC+NO <sub>x</sub> (g/kW-hr)	PM (g/kW-hr)	Opacity requirement
73 kW	2011	5.0	-	-	4.7	0.40	Yes
117 kW	2012	5.0	-	-	4.0	0.30	Yes
528 kW	2017	3.5	0.40	0.19	-	0.02	No

[40 CFR 60.4204(b) ; 40 CFR 1039, App I ; 40 CFR 1039.101]

2. Opacity of emissions from any engine subject to an opacity standard shall not be greater than the following:

[40 CFR 60.4204(b) ; 40 CFR 1039.105]

- a. 20 percent during the acceleration mode.
- b. 15 percent during the lugging mode.
- c. 50 percent during the peaks in either the acceleration or lugging modes.

**D. Compliance Requirements**

1. The Permittee shall not install non-emergency stationary CI ICE that do not meet the applicable requirements for the following model year engines:

[40 CFR 60.4208(c) – (f)]

Engine Power (kW)	Model Year
>19	2008
19 ≤ kW < 56	2013
56 ≤ kW < 130	2012
130 ≤ kW < 560	2011
≤ 560	2015

2. The Permittee shall comply with the emission standards specified in Condition VI.C by purchasing an engine certified to meet the applicable emission standards for the same model year and maximum engine power. The Permittee shall install and configure the engine according to the manufacturer’s emission-related specifications.

[40 CFR 60.4211(c)]

3. *The Permittee shall not install an engine that is not Tier-4 certified and that has the potential to emit more than 20% of the permitting exemption threshold of any regulated air pollutant.*

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

[Material permit conditions are indicated by underline and italics]

4. A Permittee that does not install, configure, operate, and maintain the engine and control device according to the manufacturer's emission-related written instructions, or changes emission-related settings in a way that is not permitted by the manufacturer must demonstrate compliance as follows;

[40 CFR 60.4211(g)]

- a. For any CI-RICE less than 100 horsepower, the Permittee shall keep a maintenance plan and records of conducted maintenance to demonstrate compliance 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, in accordance with 40 CFR 60.4212, to demonstrate compliance with the applicable emission standards within 1 year of such action.

[40 CFR 60.4211(g)(1)]

- b. For any CI-RICE 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 you change emission-related settings in a way that is not permitted by the manufacturer.

[40 CFR 60.4211(g)(2)]

- c. For any CI-RICE greater than 500 horsepower, 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, in accordance with 40 CFR 60.4212 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. 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)]

5. Monitoring, Recordkeeping and Reporting Requirements

- a. A certified EPA Reference Method 9 observer shall conduct a quarterly survey of visible emissions emanating engines, when in use, following the methodology in Condition I.A.2 of this Attachment except the following:

[40 CFR 60.4204(b)]

- (1) Single cylinder engines
- (2) Constant speed engines
- (3) Engines certified to a PM emission standard or Family Emission Limit (FEL) of 0.07 g/kW-hr or lower.

- b. *If an engine is equipped with a diesel particulate filter to comply with the emission standards in Condition VI.C, the Permittee shall install a backpressure monitor on the diesel particulate filter that notifies the Permittee when the high backpressure limit of the engine is approached.*

[40 CFR 60.4209(b) and A.A.C. R18-2-331.A.3.c]

[Material permit conditions are indicated by underline and italics]

- c. If an engine 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)]

6. Permit Shield

Compliance with the conditions of this Part shall be deemed compliance with 40 CFR 60.4204 (b), -4205(c), -4206, -4207(b), -4209(b), -4211(a)(1), -4211(a)(2), -4211(a)(3), -4211(c), -4211(f), -4211(g), -4211(g)(1), -4211(g)(3) and -4214(c).

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

## VII. FUGITIVE DUST REQUIREMENTS

### A. Applicability

Section VII 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]

- (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

VII. FUGITIVE DUST REQUIREMENTS

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

Haul Roads and Storage Piles

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

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

[Material Permit Condition is indicated by underline and italics]

3. Monitoring and Recordkeeping Requirements

- a. The Permittee shall maintain records of the dates on which any of the activities listed in Condition VII.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

Each month, a certified EPA Reference Method 9 observer shall monitor visible emissions from fugitive sources in accordance with Condition I.A. [A.A.C. R18-2-306.A.3.c]

C. Permit Shield

Compliance with Section VII shall be deemed compliance with A.A.C. R18-2-604, -605, -606, -607, -608, -614, and -804.B.

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

**VIII. 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]

- (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

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]

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

3. Permit Shield

Compliance with Condition VIII.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]

(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 VIII.A.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 VIII.B.1.a(3)(a) thru (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.

VIII. OTHER PERIODIC ACTIVITIES

- (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 VIII.B.1.a(1), 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;
- (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 VIII.B.1.b(1).

c. Permit Shield

Compliance with Condition VIII.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. Permit Shield

Compliance with Condition VIII.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



VIII. OTHER PERIODIC ACTIVITIES

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

[A.A.C. R18-2-1101.A.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 VIII.C.1 shall be deemed compliance with A.A.C. R18-2-1101.A.12.

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

ATTACHMENT "C": EQUIPMENT LIST

ATTACHMENT "C": EQUIPMENT LIST

Equipment Name (from current permit)	Maximum Capacity	Make	Model	Equipment ID #/Serial No.	Control Device	Year of Manufacture	Applicable Rule(s)
<b>Primary Crushing</b>							
Primary Crusher Feed Hopper	70 tons	Goodfellow	70 ton	100-HP-001	Water Spray	2017	40 CFR 60 Subpart LL
Vibrating Grizzly Feeder	353 tph*	KPI	42 × 20	100-FE-001	Water Sprays	2017	40 CFR 60 Subpart LL
Primary Crusher	166 tph*	KPI	3144V Jaw Crusher	100-CR-001	Water Sprays	2017	40 CFR 60 Subpart LL
Primary Crusher Discharge Conveyor	353 tph*	KPI	42 × 30	100-CV-001	Water Sprays	2017	40 CFR 60 Subpart LL
<b>Fine Crushing</b>							
Bin Vent Dust Collector	1,500 acfm	Donaldson	CPV-4	200-DC-001	n/a	2017	40 CFR Subpart LL
Single Point Dust Collector	1,500 acfm	Donaldson	CPV-4	200-DC-002	n/a	2017	40 CFR Subpart LL
Tertiary Feed Bin Vent	1,500 cfm	Donaldson	CPV-4	200-DC-005	n/a	2017	40 CFR 60 Subpart LL
Single Point Dust Collector	1,500 cfm	Donaldson	CPV-4	200-DC-006	n/a	2017	40 CFR 60 Subpart LL
Single Point Dust Collector	1,500 cfm	Donaldson	CPV-4	200-DC-007	n/a	2017	40 CFR 60 Subpart LL

ATTACHMENT "C": EQUIPMENT LIST

Equipment Name (from current permit)	Maximum Capacity	Make	Model	Equipment ID #/Serial No.	Control Device	Year of Manufacture	Applicable Rule(s)
Secondary and Tertiary Baghouse	35,0000 cfm	Torit 484RFW12	CPV-4	200-DC-008	n/a	2005	40 CFR 60 Subpart LL
Secondary Bin Feed Conveyor	353 tph*	KPI	36 × 160	200-CV-002	200-DC-002	2017	40 CFR 60 Subpart LL
Secondary Crushing Feed Bin	70 ton	Goodfellow	70 ton	200-BN-001	Dust Collector 200-DC-002	2017	40 CFR 60 Subpart LL
Secondary Screen Feeder	353 tph*	Goodfellow	42 × 22	200-FE-001	Dust Collector 200-DC-002	2017	40 CFR 60 Subpart LL
Secondary Screen Feed Conveyor	353 tph*	KPI	36 × 125	200-CV-003	Dust Collector 200-DC-002	2017	40 CFR 60 Subpart LL
Secondary Screen	353 tph*	JCI	6203DI	200-SR-001	Dust Collector 200-DC-002	2017	40 CFR 60 Subpart LL

ATTACHMENT "C": EQUIPMENT LIST

Equipment Name (from current permit)	Maximum Capacity	Make	Model	Equipment ID #/Serial No.	Control Device	Year of Manufacture	Applicable Rule(s)
Screen Undersize Conveyor	353 tph	JCI	60x22	200-SR-002-CV1	Dust Collector 200-DC-002	2017	40 CFR 60 Subpart LL
Secondary Crusher	229 tph*	KPI-JCI	K400+	200-CR-001	Dust Collector 200-DC-002	2017	40 CFR 60 Subpart LL
Screen Undersize Conveyor	200 tph	JCI	36x20	200-SR-003-CV1	Dust Collector 200-DC-002	2017	40 CFR 60 Subpart LL
Crusher Discharge Conveyor No. 1	353 tph	KPI-JCI	42-inch Belt; 115 ft L; 8.5 ft Lift	200-CV-004	Dust Collector 200-DC-002	2017	40 CFR 60 Subpart LL
Tertiary Bin Feed Conveyor	909 tph*	KPI-JCI	tbd	200-CV-007	Dust Collector 200-DC-005	2017	40 CFR 60 Subpart LL
Tertiary Crushing Feed Bin	140 tons	KPI-JCI	tbd	200-BN-002	Dust Collector 200-DC-005	2017	40 CFR 60 Subpart LL

ATTACHMENT "C": EQUIPMENT LIST

Equipment Name (from current permit)	Maximum Capacity	Make	Model	Equipment ID #/Serial No.	Control Device	Year of Manufacture	Applicable Rule(s)
Tertiary Screen Feeder	454 tph	KPI-JCI	tbd	200-FE-002	Dust Collector 200-DC-006	2017	40 CFR 60 Subpart LL
Tertiary Screen Feeder	454 tph	KPI-JCI	tbd	200-FE-003	Dust Collector 200-DC-007	2017	40 CFR 60 Subpart LL
Tertiary Screen Feed Conveyor	454 tph	KPI-JCI	tbd	200-CV-008	Dust Collector 200-DC-006	2017	40 CFR 60 Subpart LL
Tertiary Screen Feed Conveyor	454 tph	KPI-JCI	tbd	200-CV-009	Dust Collector 200-DC-007	2017	40 CFR 60 Subpart LL
Tertiary Screen	454 tph*	KPI-JCI	8203SI	200-SR-002	Dust Collector 200-DC-002	2017	40 CFR 60 Subpart LL
Tertiary Screen	454 tph*	KPI-JCI	8203SI	200-SR-003	Dust Collector 200-DC-002	2017	40 CFR 60 Subpart LL
Screen Undersize Conveyor	176 tph*	KPI-JCI	60 × 16	200-SR-002-CV1	Water Sprays	2017	40 CFR 60 Subpart LL
Tertiary Crusher	278 tph*	KPI-JCI	K500+	200-CR-002	Dust Collector 200-DC-002	2017	40 CFR 60 Subpart LL

ATTACHMENT "C": EQUIPMENT LIST

Equipment Name (from current permit)	Maximum Capacity	Make	Model	Equipment ID #/Serial No.	Control Device	Year of Manufacture	Applicable Rule(s)
Tertiary Crusher	278 tph*	KPI-JCI	K500+	200-CR-003	Dust Collector 200-DC-002	2017	40 CFR 60 Subpart LL
Fine Crushing Product Conveyor	353 tph	KPI-JCI	tbd	200-CV-011	Dust Collector 200-DC-002	tbd	40 CFR 60 Subpart LL
<b>Crushed Ore Handling</b>							
Cement Storage Silo (w/Dust Collector)	100 Tons	Westpro	SI100	250-BN-001	Dust Collector 250-DC-001	2017	A.A.C. R18-2-730
Cement Feeder	0.42 tph*	Westpro	6 × 21	250-FE-001	Enclosed	2017	A.A.C. R18-2-730
Agglomeration Conveyor	353 tph	Westpro	tbd	250-CV-012	Water sprays	2017	A.A.C. R18-2-730
Paddle wheel	650 tph	Custom	Custom	250-PW-001	Enclosed	2017	A.A.C. R18-2-730
Agglomerated Product Conveyor	353 tph*	KPI	3 × 60	250-CV-013	Water sprays	2017	A.A.C. R18-2-730
Stockpile Feed Conveyor	353 tph*	KPI	3 × 100	250-CV-014	Water sprays	2017	A.A.C. R18-2-730
Agglomerated Product Conveyors	353 tph*	KPI	3 X 60	250-CV-015 thru 250-CV-017	Water sprays	2017	A.A.C. R18-2-730

ATTACHMENT "C": EQUIPMENT LIST

Equipment Name (from current permit)	Maximum Capacity	Make	Model	Equipment ID #/Serial No.	Control Device	Year of Manufacture	Applicable Rule(s)
Cement Silo Dust Collector	1,500 cfm	Donaldson	CPV-4	250-DC-001	N/A	2017	A.A.C. R18-2-730
Transfer Conveyors	353 tph	Superior	36 × 100	300-CV-021 thru 300-CV-037	Water Sprays	2017	A.A.C. R18-2-730
Spare Transfer Conveyors	353 tph	Superior	36 × 100	300-CV-041 thru 300-CV-043	Water Sprays	2017	A.A.C. R18-2-730
Heap Leach Stacker Conveyor	353 tph	Superior	36 × 110	300-CV-051	Water Sprays	2017	A.A.C. R18-2-730
<b>Merrill Crowe</b>							
Pre-Coat Tank with Dust Collector (Bag Breaker)	5,710 gal	MMI Tank	tbd	400-TK-005	400-DC-005	2017	A.A.C. R18-2-730
Body Feed Tank with Dust Collector (Bag Breaker)	5,710 gal	MMI Tank	tbd	400-TK-004	400-DC-004	2017	A.A.C. R18-2-730
Bag Breaker Dust Collector	500 afcm	Donaldson	CPV-1	400-DC-004	N/A	2017	A.A.C. R18-2-730
Bag Breaker Dust Collector	500 afcm	Donaldson	CPV-1	400-DC-005	N/A	2017	A.A.C. R18-2-730
Zinc Feeder	15 lb./hr.	CGS	1057-M-01	400-FE-001	none	2017	A.A.C. R18-2-730

ATTACHMENT "C": EQUIPMENT LIST

Equipment Name (from current permit)	Maximum Capacity	Make	Model	Equipment ID #/Serial No.	Control Device	Year of Manufacture	Applicable Rule(s)
Precipitate Filters (2)	4 × 4	Micronics	TR150DA08-FS-AO	400-FL-011 and 400-FL-012	none	2017	40 CFR 63 Subpart EEEEEEE
<b>Refinery</b>							
Refinery Drying Oven	1000 lbs.	Wisconsin Oven	SWN-44-6E	500-DR-001	none	2017	40 CFR 63 Subpart EEEEEEE
Melt Furnace (Crucible)	943 lbs. (brass)	Baker Furnace	#400-T-D	500-FU-001	500-DC-001 and 500-DC-010	2017	40 CFR 63 Subpart EEEEEEE
Melt Furnace (Fuel Oil Burner)	1 million BTU/hr.	Baker Furnace	#400-T-D	500-FU-001	500-DC-001 and 500-DC-010	2017	A.A.C. R18-2-724
Slag Pots (8)	0.93 cu ft	Legend	183791	500-MS-002	500-DC-001 and 500-DC-010	2017	40 CFR 63 Subpart EEEEEEE
Refinery Baghouse	40,000 acfm	Ducon	156/2449	500-DC-001	N/A	2017	40 CFR 60 Subpart LL and 40 CFR 63 Subpart EEEEEEE



ATTACHMENT "C": EQUIPMENT LIST

Equipment Name (from current permit)	Maximum Capacity	Make	Model	Equipment ID #/Serial No.	Control Device	Year of Manufacture	Applicable Rule(s)
Refinery Wet Scrubber	40,000 afcm	Ducon	60	500-DC-010	N/A	2017	40 CFR 60 Subpart LL and 40 CFR 63 Subpart EEEEEEE
<b>Gensets</b>							
Tier 4 Non-Emergency CI-RICE (8 units)	528 kW	CAT	C18 Tier 4 Final	700-GE-001 thru 700-GE-008	N/A	2017	40 CFR 60 Subpart IIII
Tier 3 Generator	117 KW	CAT	XQ100-6	XQ-100/D4D02186	N/A	2012	40 CFR 60 Subpart IIII
Tier 3 Generator	117 kW	CAT	XQ100-6	XQ -100/D4D02896	N/A	2012	40 CFR 60 Subpart IIII
Tier 3 Generator	73 KW	ISUZU	BJ-4JJ1X	BSZXL03.0JXB/SZX-NRCI-11-17	N/A	2011	40 CFR 60 Subpart IIII
<b>Fuel Tanks (insignificant activities)</b>							
Diesel Fuel Storage Tanks for Mobile Equipment (3)	10,000 gallons	Tyco Enterprises	double wall	McCoy	N/A	2017	N/A

ATTACHMENT "C": EQUIPMENT LIST

<b>Equipment Name (from current permit)</b>	<b>Maximum Capacity</b>	<b>Make</b>	<b>Model</b>	<b>Equipment ID #/Serial No.</b>	<b>Control Device</b>	<b>Year of Manufacture</b>	<b>Applicable Rule(s)</b>
Diesel Fuel Storage Tanks for Gensets (2)	10,000 gallons	Tyco Enterprises	Double Wall	700-TK-001, 700-TK-002	N/A	2017	N/A
Furnace Fuel Oil Day Tank	1,000 gallons	Rebel Oil	Double Wall	500-TK-001	N/A	2017	N/A
Unleaded Gasoline Fuel Storage Tank for Mobile Equipment	1000 gallons	Rebel Oil	Double Wall	McCoy	N/A	2015	N/A
Unleaded Gasoline Fuel Storage Tank for Mobile Equipment (2)	500 gallons	Rebel Oil	Double Wall	McCoy	N/A	2016	N/A