Louisville Metro Air Pollution Control District
850 Barret Avenue
Louisville, Kentucky 40204-1745

Title V Operating Permit

Permit No.: 143-97-TV (R1) Plant ID: 187

Effective Date: xx/xx/2014 Expiration Date: xx/xx/2014

Permission is hereby given by the Louisville Metro Air Pollution Control District to operate the process(es) and equipment described herein which are located at:

Eckart America Corporation
4101 Camp Ground Road
Louisville, KY 40211

The applicable procedures of District Regulation 2.16 regarding review by the U.S. EPA and public participation have been followed in the issuance of this permit. Based on review of the application on file with the District, permission is given to operate under the conditions stipulated herein. If a renewal permit is not issued prior to the expiration date, the owner or operator may continue to operate in accordance with the terms and conditions of this permit beyond the expiration date, provided that a complete renewal application is submitted to the District no earlier than eighteen (18) months and no later than six (6) months prior to the expiration date.

Application No.:	60468	Application Received: 7/28/2005
	10023	6/13/2010
	53401	1/15/2013

Permit Writer: Chris Gerstle

Administratively Complete: 9/28/2005

Date of Public Notice: 06/05/2014

Date of Proposed Permit: 06/05/2014

{Manager1}
Air Pollution Control Officer
{date1}

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Title V Permit Revisions/Changes

Revision No.	Issue Date	Public Notice Date	Type	Attachment No./Page No.	Description
Initial	1/29/2001	8/28/2001	Initial	Entire Permit	Initial Issuance
R1	??/??/2014	6/5/2014	Renewal	Entire Permit	Permit Renewal; Incorporate: STAR TAC requirements; Incorporate Construction Permits (See table below) Removed equipment taken out of service

Permit Number	Description
163-00-C	Five Ball Mills #7, 8, 9, 10, & 11 [U-22] {E-111 through 115}
164-00-C	20 Vibratory screens [U-22] {E-116}
165-00-C	30 Agitated Tanks [U-22] {E-117}
166-00-C	3 Filter Presses [U-22] {E-119, 120, 121}
167-00-C	Seven Ribbon Mixers [U-15] {E-129 through 132, E-134, 136, 137}
120-02-C	One (1) vacuum dryer/solvent exchanger (1300 lb/batch). (Solvent Exchanger 1) [U-23] {E-127}
127-02-C	Three (3) agitated tanks: two (2) at 317 gallons each and one (1) at 80gallons. (Additive Tanks 1, 2, 3) [U-23] {E-123, 125, 126}
245-02-C	Two (2) 15,500-gallon storage tanks (Tank #8 and Tank #9) for mineral spirits. [U-16] {E-166, 167}
39-03-C	One (1) Ball Mill (#12). [U-22] {E-178}
40-03-C	Four (4) screeners. [U-22] {E-116}
41-03-C	Five (5) slurry tanks (2730 gallons each). [U-22] {E-118}
126-03-C	Two (2) 15,500-gallon mineral spirits storage vessels [U-16], {E-168 & 169}
179-05-C	One (1) Vacuum dryer/solvent exchanger, vacuum pump, and condenser. [U-23] {E-185}
180-05-C	One (1) Additive Tank 4 (210 gallons). [U-23] {E-184}
181-05-C	Three (3) Ball Mills #13 (450 pounds per batch), #14 (1300 pounds per batch), and #20 (2000 pounds per batch). [U-24] & [U-25]
182-05-C	Four (4) Vibrating Screens (600 gallons per hour each). [U-24] & [U-25]
183-05-C	Eight (8) Slurry Tanks (two (2) at 2600 gallons each, one (1) at 2100 gallons, and five (5) at 1000 gallons each). [U-24] & [U-25]
184-05-C	Three (3) Filter Presses (one (1) at 2000 pounds, one (1) at 300 pounds, and one (1) at 175 pounds), and one (1) 25,000 pound Blender [U-24, U-25]
185-05-C	One (1) 4000-gallon Storage Tank [U-25]
313-06-C	One (1) Still #4, make Hering AG Gunzenhausen, model custom, capacity 375 gallons per hour. [U-17]

Permit Number	Description
314-06-C	Two (2) Drum/Tote Unloading Stations, make Fischer AG, model custom, capacity 250 lb/hr each; two (2) Staging Vessels, make BMI Industrial Systems, model custom, capacity 500 ltr.; two (2) Rotary Feeders, make Rotolock, model H100B38 304SS, capacity 250 lb/hr each; and two (2) Rescreeners, make Russel Finex, model Europa 1200, capacity 250 lb/hr. [U-8]
315-06-C	Eight (8) Filters each controlling one emission point listed on Permit 314-06. [U-8]
316-06-C	Three (3) tanks, one (1) cyclone, one (1) classifier, and (1) conveying unit. [U-6]
317-06-C	Two (2) Stills #5 and #6, make Hering AG Gunzenhausen, model custom, capacity 375 gallons per hour each. [U-17]
247-07-C	Two (2) Filter Presses, capacity 300 lb each, for the Solvent Wash System. [U-27]
250-07-C	Two (2) Storage (Recirculating) Tanks, capacity 800 gal each, for the Solvent Wash System; and one (1) Press Filtrate Storage Tank, capacity 265 gal, for the Solvent Wash System. [U-27]
463-08-C	Three (3) 440-gallon aluminum paste slurry storage tanks (B06, B07, and B08), make Snyder Industries Inc., model Jumbo Drum. [U-22]
464-08-C	One (1) Docking/Transfer Station (2700 lb/hr), make custom, controlled by Metal Mesh Filter 1. [U-3] {E-229}
465-08-C	Two (2) Metal Mesh Filters, make custom, model custom. [U-3] {F-005, F-006}
84-09-C	Six (6) metal mesh filters, F-007 through F-012, make Pall Corporation, model Metal-Bag Custom, controlling existing units U-3, U-4, U-6, and U-12 to replace the existing cyclone control devices.
33524-11-C	Multicylcone {E7}, classifier weigh tank {E128b-2} - EU [U-2] & [U-6]
34565-12-C	Replacement of four existing condenser systems (Low Pressure Paste, High Pressure Paste, Mills 13/14 and Zinc Mill) with one dual stage condenser SVR (solvent vapor recovery) system controlling equipment listed in comments 1, 4, 6, 8 and 15. Modifications to vent emissions from Solvent Exchanger {E-185} process to the SVR.
35661-12-C	Mixer 7 {E-135}, Brunati SNC 1033 Castelfranco/Italy, 5500 pound capacity, that will produce aluminum paste product from aluminum filter cake, mineral spirits and high flash naphtha.
36408-12-C	Removal of metal mesh filter {F-010} from the vent on Classifier 1 Weigh Tank {E-26a} and removal of filters E-151 and E-159 from the drum/tote unloading stations {E-150 and E-158}. [U-6]
36563-13-C	Unpermitted equipment; filtrate tank, Mill 14 recirculation tank; Centrifuge/Decanter, Rework Hooper, High pressure paste condenser; still settling tank (2); miscellaneous tank (650 gallon); Mill 5/6 slurry tank; Double/single drum tumbler; tubar dumper; vibrating screen; screw conveyor; hopper; bucket fill; airslide conveyor pod {E-141}; 3 parts washers

Abbreviations and Acronyms

AP-42	- AP-42, *Compilation of Air Pollutant Emission Factors*, published by USEPA
APCD	- Louisville Metro Air Pollution Control District
atm	- Atmosphere
BACT	- Best Available Control Technology
BTU	- British thermal unit
CEMS	- Continuous Emission Monitoring System
CFR	- Code of Federal Regulations
CO	- Carbon monoxide
District	- Louisville Metro Air Pollution Control District
EA	- Environmental Acceptability
EAG	- Environmental Acceptability Goal
HAP	- Hazardous Air Pollutant
hr	- Hour
IA	- Insignificant Activity
lb	- Pound
l	- Liter
LMAPCD	- Louisville Metro Air Pollution Control District
MACT	- Maximum Achievable Control Technology
MM	- Million
NAICS	- North American Industry Classification System
NMOC	- Non Methane Organic Compound
NSR	- New Source Review
NOx	- Nitrogen oxides
NSPS	- New Source Performance Standards
PM	- Particulate Matter
PM_{10}	- Particulate Matter less than 10 microns
ppm	- Parts per million
PSD	- Prevention of Significant Deterioration
PMP	- Preventive Maintenance Plan
psia	- Pounds per square inch absolute
PTE	- Potential to Emit
Qty	- Quantity
RACT	- Reasonably Available Control Technology
SIC	- Standard Industrial Classification
SIP	- State Implementation Plan
SO_2	- Sulfur dioxide
STAR	- Strategic Toxic Air Reduction (includes Regulations 5.00, 5.01, 5.20, 5.21, 5.22, 5.23)
TAC	- Toxic Air Contaminant
tpy	- Tons per year
UTM	- Universal Transverse Mercator
VOC	- Volatile Organic Compound
w.c.	- water column
year	- any period of twelve consecutive months, unless "calendar year" is specified
yr	- year, or any 12 consecutive-month period, as determined by context

Preamble

Title V of the Clean Air Act Amendments of 1990 required EPA to create an operating permit program for implementation by state or local air permitting authorities. The purposes of this program are (1) to require an affected company to assume full responsibility for demonstrating compliance with applicable regulations; (2) to capture all of the regulatory information pertaining to an affected company in a single document; and (3) to make permits more consistent with each other.

A company is subject to the Title V program if it meets any of several criteria related to the nature or amount of its emissions. The Title V operating permit specifies what the affected company is, how it may operate, what its applicable regulations are, how it will demonstrate compliance, and what is required if compliance is not achieved. In Jefferson County, Kentucky, the Louisville Metro Air Pollution Control District (LMAPCD) is responsible for issuing Title V permits to affected companies and enforcing local regulations and delegated federal and state regulations. EPA may enforce federal regulations but not "District Only Enforceable Regulations".

Title V offers the public an opportunity to review and comment on a company's draft permit. It is intended to help the public understand the company's compliance responsibility under the Clean Air Act. Additionally, the Title V process provides a mechanism to incorporate new applicable requirements. Such requirements are available to the public for review and comment before they are adopted.

Title V Permit general conditions define requirements which are generally applicable to all Title V companies under the jurisdiction of LMAPCD. This avoids repeating these requirements in every section of the company's Title V permit. Company-specific conditions augment the general conditions as necessary; these appear in the sections of the permit addressing individual emission units or emission points.

The general conditions include references to regulatory requirements that may not currently apply to the company, but which provide guidance for potential changes at the company or in the regulations during the life of the permit. Such requirements may become applicable if the company makes certain modifications or a new applicable requirement is adopted.

When the applicability of a section or subpart of a regulation is unclear, a clarifying citation will be made in the company's Title V permit at the emission unit/point level. Comments may also be added at the emission unit/point level to give further clarification or explanation.

The source's Title V permit may include a current table of "insignificant activities."

Insignificant Activities are defined in District Regulation 2.16 section 1.22, as of the date the permit was proposed for review by U.S. EPA, Region 4.

Insignificant Activities identified in District Regulation 2.02, Section 2 may be subject to size or production rate disclosure requirements pursuant to Regulation 2.16 section 3.5.4.1.4.

Insignificant Activities identified in District Regulation 2.02, Section 2 shall comply with generally applicable requirements as required by Regulation 2.16 section 4.1.9.4.

General Conditions

1. **Compliance** - The owner or operator shall comply with all applicable requirements and with all terms and conditions of this permit. Any noncompliance shall constitute a violation of the Act, State and District regulations and shall cause the source to be subject to enforcement actions including, but not limited to, the termination, revocation and reissuance, or revision of this permit, or denial of a permit application to renew this permit. Notwithstanding any other provision in the Jefferson County portion of the Kentucky SIP approved by EPA, any credible evidence may be used for the purpose of establishing whether the owner or operator is in compliance with, has violated, or is in violation of any such plan. (Regulation 2.16, sections 4.1.3, 4.1.13.1 and 4.1.13.7)

2. **Compliance Certification** - The owner or operator shall certify, annually, or more frequently if required in applicable regulations, compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. This certification shall meet the requirements of Regulation 2.16, sections 3.5.11 and 4.3.5. The owner or operator shall submit the annual compliance certification (Form 9400-O) directly to the EPA and to the District, as set forth in Regulation 2.16, section 4.3.5.4, at the following addresses:

   US EPA - Region IV
   Air Enforcement Branch
   Atlanta Federal Center
   61 Forsyth Street
   Atlanta, GA 30303-8960

   Air Pollution Control District
   Room 205
   850 Barret Ave
   Louisville, KY 40204-1745

   This certification must be postmarked by 15 April of the year following the year for which the certification is being submitted, or other such due date as required by another applicable regulation.

3. **Compliance Schedule** - The owner or operator shall submit a schedule of compliance for each emission unit that is not in compliance with all applicable requirements. A compliance schedule must meet the requirements of Regulation 2.16, section 3.5.9.5. A schedule of compliance shall be supplemental to, and shall not condone noncompliance with, the applicable requirements on which it is based. For each schedule of compliance, the owner or operator shall submit certified progress reports at least semi-annually, or at a more frequent period if specified in an applicable requirement or by the District in accordance with Regulation 2.16 section 4.3.4. The progress reports shall contain:

   a. Dates for achieving the activities, milestones, or compliance required in the schedule of compliance, and dates when activities, milestones, or compliance were achieved.

   b. An explanation of why dates in the schedule of compliance were not or will not be met, and preventive or corrective measures adopted.

4. **Duty to Supplement or Correct Application** - If the owner or operator fails to submit relevant facts or has submitted incorrect information in the permit application, they shall, upon discovery of the occurrence, promptly submit the supplementary facts or corrected information in accordance with Regulation 2.16, section 3.4.

5. **Emergency Provision**

   a. An emergency shall constitute an affirmative defense to an enforcement action brought for noncompliance with technology-based emission limitations. The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:

      i. An emergency occurred and that the owner or operator can identify the cause of the emergency;

ii. The permitted facility was at the time being properly operated;

iii. During the period of the emergency the owner or operator expeditiously took all reasonable steps, consistent with safe operating practices, to minimize levels of emissions that exceeded the emission standards or other requirements in this permit; and

iv. The owner or operator submitted notice meeting the requirements of Regulation 1.07 of the time when emissions limitations were exceeded because of the emergency. This notice must fulfill the requirement of this condition, and must contain a description of the emergency, any steps taken to mitigate emissions, and any corrective actions taken.

b. In an enforcement proceeding, the owner or operator seeking to establish the occurrence of an emergency has the burden of proof.

c. This condition is in addition to any emergency or upset provision contained in an applicable requirement. (Regulation 2.16, sections 4.7.1 through 4.7.4)

6. **Emission Fees Payment Requirements** - The owner or operator shall pay annual emission fees in accordance with Regulation 2.08, section 2. Failure to pay the emissions fees when due shall constitute a violation of District Regulations. Such failure is subject to penalties and an increase in the fee of an additional 5% per month up to a maximum of 25% of the original amount due. In addition, failure to pay emissions fees within 60 days of the due date shall automatically suspend this permit to operate until the fee is paid or a schedule for payment acceptable to the District has been established. (Regulation 2.08, section 2)

7. **Emission Offset Requirements** - The owner or operator shall comply with the requirements of Regulation 2.04.

8. **Enforceability Requirements** - Except for the conditions that are specifically designated as "District Only Enforceable Conditions", all terms and conditions of this permit, including any provisions designed to limit a source's potential to emit, are enforceable by EPA and citizens as specified under the Act. (Regulation 2.16, sections 4.2.1 and 4.2.2)

9. **Enforcement Action Defense**

a. It shall not be a defense for the owner or operator in an enforcement action that it would have been necessary for the owner or operator to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

b. The owner or operator's failure to halt or reduce activity may be a mitigating factor in assessing penalties for noncompliance if the health, safety or environmental impacts of halting or reducing operations would be more serious than the impacts of continued operation. (Regulation 2.16, sections 4.1.13.2 and 4.1.13.3)

10. **Hazardous Air Pollutants and Sources Categories** - The owner or operator shall comply with the applicable requirements of Regulations 5.02 and 5.14.

11. **Information Requests** - The owner or operator shall furnish to the District, within a reasonable time, information requested in writing by the District, to determine whether cause exists for revising, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The owner or operator shall also furnish, upon request, copies of records required to be kept by this permit.
(Regulation 2.16, section 4.1.13.6)

If information is submitted to the District under a claim of confidentiality, the source shall submit a copy of the confidential information directly to EPA at the address in General Condition 35.b. (Regulation 2.07, section 10.2)

12. **Insignificant Activities**- The owner or operator shall:

    a. Notify the District in a timely manner of any proposed change to an insignificant activity that would require a permit revision. (Regulation 2.16, section 5)

    b. Submit a current list of Insignificant Activities by April 15 of each year with the annual compliance certification, including an identification of the additions and removals of Insignificant Activities that occurred during the preceding year. (Regulation 2.16, section 4.3.5.3.6)

13. **Inspection and Entry** - Upon presentation of credentials and other documents as required by law, the owner or operator shall allow the District or an authorized representative to perform the following during reasonable hours: (Regulation 2.16, section 4.3.2)

    a. Enter the premises to inspect any emissions-related activity or records required in this permit.

    b. Have access to and copy records required by this permit.

    c. Inspect facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required by this permit.

    d. Sample or monitor substances or parameters to assure compliance with this permit or any applicable requirements.

14. **Monitoring and Related Record Keeping and Reporting Requirement** - The owner or operator shall comply with the requirements of Regulation 2.16, section 4.1.9. Unless specified elsewhere in this permit, the owner or operator shall complete required monthly record keeping within 30 days following the end of each calendar month. The owner or operator shall submit all required monitoring reports at least once every six months, unless more frequent reporting is required by an applicable requirement. The reporting period shall be January 1st through June 30th and July 1st through December 31st of each calendar year. All reports shall be sent to the District at the address in General Condition 2 and must be postmarked by the 60th day following the end of each reporting period. If surrogate operating parameters are monitored and recorded in lieu of emission monitoring, then an exceedance of multiple parameters may be deemed a single violation by the District for enforcement purposes. All reports shall include the company name, plant ID number, and the beginning and ending date of the reporting period. The compliance reports shall clearly identify any deviation from a permit requirement or a declaration that there were no such deviations. All semi-annual compliance reports shall include the statement "Based on information and belief formed after reasonable inquiry, I certify that the statements and information in this document are true, accurate, and complete" and the signature and title of a Responsible Official of the company.

    The semi-annual compliance reports are due on or before the following dates of each calendar year:

Reporting Period	Report Due Date
January 1st through June 30th	August 29th
July 1st through December 31st	March 1st [1]

    [1]Note: The date for leap years is February 29th.

    If a change in the "Responsible Official" (RO) occurs during the term of this permit, or if an RO is added, the owner or operator shall provide written notification (Form AP 100-A) to the District within 30 calendar days following the date a change in the designated RO occurs for this facility.

15. **Off-permit Documents** - Any applicable requirements, including emission limitations, control technology requirements, or work practice standards, contained in an off-permit document cannot be changed without undergoing the permit revision procedures in Regulation 2.16, section 5. (Regulation 2.16, section 4.1.5)

16. **Operational Flexibility** - The owner or operator may make changes without permit revision in accordance with Regulation 2.16, section 5.8.

17. **Permit Amendments (Administrative)** - This permit can be administratively amended by the District in accordance with Regulation 2.16, section 5.4.

18. **Permit Application Submittal** - The owner or operator shall submit a timely and complete application for permit renewal or significant revision. If the owner or operator submits a timely and complete application then the owner or operator's failure to have a permit is not a violation until the District takes formal action on this permit application. This protection shall cease to apply if, subsequent to completeness determination, the owner or operator fails to submit, by the deadline specified in writing by the District, additional information required to process the application as required by Regulation 2.16, sections 3 and 5.2.

19. **Permit Duration** - This permit is issued for a fixed term of 5 years, in accordance with Regulation 2.16, section 4.1.8.3.

20. **Permit Renewal, Expiration and Application** - Permit renewal, expiration and application procedural requirements shall be in accordance with Regulation 2.16, sections 4.1.8.2 and 5.3. This permit may only be renewed in accordance with section 5.3.

21. **Permit Revisions** - No permit revision shall be required under any approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for in the permit. (Regulation 2.16, section 4.1.16)

22. **Permit Revision Procedures (Minor)** - Except as provided in 40 CFR Part 72, the Acid Rain Program, this permit may be revised in accordance with Regulation 2.16, section 5.5.

23. **Permit Revision Procedures (Significant)** - A source seeking to make a significant permit revision shall meet all the Title V requirements for permit applications, issuance and Permit renewal, in accordance with Regulation 2.16, section 5.7, and all other applicable District Regulations.

24. **Permit Termination and Revocation by the District** - The District may terminate this permit only upon written request of the owner or operator. The District may revoke a permit for cause, in accordance with Regulation 2.16, section 5.11.1 through 5.11.6. For purposes of section 5.11.1, substantial or unresolved noncompliance includes, but is not limited to:

    a. Knowingly operating process or air pollution control equipment in a manner not allowed by an applicable requirement or that results in excess emissions of a regulated air pollutant that would endanger the public or the environment.

    b. Failure or neglect to furnish information, analyses, plans, or specifications required by the District.

    c. Knowingly making any false statement in any permit application.

    d. Noncompliance with Regulation 1.07, section 4.2; or

    e. Noncompliance with KRS Chapter 77.

25. **Permit Shield** - The permit shield shall apply in accordance with Regulation 2.16, section 4.6.1.

26. **Prevention of Significant Deterioration of Air Quality** - The owner or operator shall comply with the requirements of Regulation 2.05.

27. **Property Rights** - This permit shall not convey property rights of any sort or grant exclusive privileges in accordance with Regulation 2.16, section 4.1.13.5.

28. **Public Participation** - Except for modifications qualifying for administrative permit amendments or minor permit revision procedures, all permit proceedings shall meet the requirements of Regulations 2.07, section 1; and 2.16, sections 5.1.1.2 and 5.5.4.

29. **Reopening For Cause** - This permit shall be reopened and revised by the District in accordance with Regulation 2.16 section 5.9.

30. **Reopening for Cause by EPA** - This permit may be revised, revoked and reissued or terminated for cause by EPA in accordance with Regulation 2.16 section 5.10.

31. **Risk Management Plan (112(r))** - For each process subject to section 112(r) of the Act, the owner or operator shall comply with 40 CFR Part 68 and Regulation 5.15.

32. **Severability Clause** - The conditions of this permit are severable. Therefore, if any condition of this permit, or the application of any condition of this permit to any specific circumstance, is determined to be invalid, the application of the condition in question to other circumstances, as well as the remainder of this permit's conditions, shall not be affected.
(Regulation 2.16, section 4.1.12)

33. **Stack Height Considerations** - The owner or operator shall comply with the requirements of Regulation 2.10.

34. **Startups, Shutdowns, and Upset Conditions Requirements** - The owner or operator shall comply with the requirements of Regulation 1.07.

35. **Submittal of Reports, Data, Notifications, and Applications**

    a. Applications, reports, test data, monitoring data, compliance certifications, and any other document required by this permit as set forth in Regulation 2.16 sections 3.1, 3.3, 3.4, 3.5, 4.1.13.6, 5.8.5 and 5.12 shall be submitted to:

    Air Pollution Control District
    Room 205
    850 Barret Ave
    Louisville, KY 40204-1745

    b. Documents which are specifically required to be submitted to EPA as set forth in Regulation 2.16 sections 3.3, and 5.8.5 shall be mailed to EPA at:

    US EPA - Region IV
    APTMD - 12th floor
    Atlanta Federal Center
    61 Forsyth Street
    Atlanta, GA 30303-3104

36. **Other Applicable Regulations** - The owner or operator shall comply with all applicable requirements of the following:

Federally Enforceable Regulations:

Regulation	Title
1.01	General Provisions
1.02	Definitions
1.03	Abbreviations And Acronyms
1.04	Performance Tests
1.05	Compliance With Emissions Standards And Maintenance Requirements
1.06	Source Self-Monitoring and Reporting
1.07	Emissions During Shutdowns, Malfunctions, Startups, and Emergencies
1.08	Administrative Procedures
1.09	Prohibition of Air Pollution

Regulation	Title
1.10	Circumvention
1.11	Control of Open Burning
1.14	Control of Fugitive Particulate Emissions
2.01	General Application
2.02	Air Pollution Regulation Requirements and Minor Facility Exemptions
2.03	Authorization to Construct or Operate; Demolition/Renovation Notices and Permit Requirements
2.07	Public Notification for Title V, PSD, and Other Offset Permits; SIP Revisions; and Use of Emission Reduction Credits
2.09	Causes for Permit Suspension
2.10	Stack Height Considerations
2.11	Air Quality Model Usage
2.16	Title V Operating Permits
4.01	General Provisions for Emergency Episodes
4.02	Episode Criteria
4.03	General Abatement Requirements
4.07	Episode Reporting Requirements
6.01	General Provisions (Existing Affected Facilities)
6.02	Emission Monitoring for Existing Sources
7.01	General Provisions (New Affected Facilities)

District Only Enforceable Regulations:

Regulation	Title
1.12	Control of Nuisances
1.13	Control of Objectionable Odors
2.08	Emission Fee, Permit Fees and Permit Renewal Procedures
5.00	Standards for Toxic Air Contaminants and Hazardous air Pollutants, Definitions
5.01	Standards for Toxic Air Contaminants and Hazardous air Pollutants, General Provisions
5.02	Adoption and Incorporation of National Emission Standards for Hazardous Air Pollutants
5.20	Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant
5.21	Environmental Acceptability for Toxic Air Contaminants
5.22	Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant
5.23	Categories of Toxic Air Contaminants

37. **Stratospheric Ozone Protection Requirements** - Any facility having refrigeration equipment, including air conditioning equipment, which uses a Class I or II substance (listed in 40 CFR 82, Subpart A, Appendices A and B), and any facility which maintains, services, or repairs motor vehicles using a Class I or II substance as refrigerant must comply with all requirements of 40 CFR 82, Subparts A, B, and F. Those requirements include the following restrictions:

    a. Any facility having any refrigeration equipment normally containing fifty (50) pounds of refrigerant, or more, must keep servicing records documenting the date and type of all service and the quantity of any refrigerant added according to 40 CFR 82.166;

    b. No person repairing or servicing a motor vehicle may perform any service on a motor vehicle air conditioner (MVAC) involving the refrigerant for such air conditioner unless the person has been properly trained and certified as provided in 40 CFR 82.34 and 40 CFR 82.40, and properly uses equipment approved according to 40 CFR 82.36 and 40 CFR 82.38, and complies with 40 CFR 82.42;

    c. No person may sell or distribute, or offer for sale or distribution, any substance listed as a Class I or II substance in 40 CFR 82, Subpart A, Appendices A and B, except in compliance with 40 CFR 82.34(b), 40 CFR 82.42, and/or 40 CFR 82.166;

    d. No person maintaining, servicing, repairing, or disposing of appliances may knowingly vent or otherwise release into the atmosphere any Class I or II substance used as a refrigerant in such equipment and no other person may open appliances (except MVACs as defined in 40 CFR 82.152) for service, maintenance, or repair unless the person has been properly trained and certified according to 40 CFR 82.161 and unless the person uses equipment certified for that type of appliance according to 40 CFR 82.158 and unless the person observes the practices set forth in 40 CFR 82.156 and 40 CFR 82.166;

    e. No person may dispose of appliances (except small appliances, as defined in 40 CFR 82.152) without using equipment certified for that type of appliance according to 40 CFR 82.158 and without observing the practices set forth in 40 CFR 82.156 and 40 CFR 82.166;

    f. No person may recover refrigerant from small appliances, MVACs and MVAC-like appliances (as defined in 40 CFR 82.152), except in compliance with the requirements of 40 CFR 82 Subpart F;

    g. If the permittee manufactures, transforms, imports, or exports, a Class I or II substance (listed in 40 CFR 82, Subpart A, Appendices A and B), the permittee is subject to all requirements as specified in 40 CFR 82 Subpart A, Production and Consumption Controls. (Regulation 2.16, section 4.1.5)

Plant-wide

Applicable Regulations

FEDERALLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
1.04	Performance Tests	All
1.05	Compliance with Emission Standards and Maintenance Requirements	1, 4, 5

Plant-wide Specific Conditions

S1. **Standards** (Regulation 2.16, section 4.1.1)

N/A

S2. **Monitoring and Record Keeping** (Regulation 2.16, sections 4.1.9.1 and 4.1.9.2)

a. **VOC (34565-12-C)**

i. The owner or operator shall monthly calculate the plant wide amount, in pounds, of mineral spirits (MS) and high flash naphtha (HFN) lost for the previous month by conducting a mass balance using the records in Plant-wide Specific Condition S2.a.ii. unless a waiver has been granted by the District.

ii. The following items shall be recorded on the first day of each month, with the exception of the annual correction factor:

1) Receipts of MS & HFN;
2) Starting Inventory of the tank levels for all process and storage tanks;
3) Ending Inventory of the tank levels for all process and storage tanks;
4) Change in Product Inventory;
5) T-03 Shipments;
6) Finished Product Shipments;
7) Sludge Shipments;
8) Other Waste Shipments; and
9) The annual correction factor corresponding with the physical inventory.

iii. The owner or operator shall monthly calculate plant-wide daily average VOC emissions for the previous month using mineral spirits and high flash naphtha losses calculated. (Regulation 1.05, section 4)

iv. The owner or operator shall maintain daily records of the hours of operation for each piece of VOC handling equipment whenever VOC material is present. (Regulation 1.05, section 4) (Plant-wide Comment 1)

S3. **Reporting** (Regulation 2.16, section 4.1.9.3)

The owner or operator shall include, at a minimum, the following information in the semi-annual compliance monitoring reports. If no deviations from permit requirements occur during a reporting period, the owner or operator shall submit a negative declaration stating that no permit deviations occurred during the reporting period.

a. **VOC**

i. The plant-wide monthly and consecutive 12-month total of lost mineral spirits and high flash naphtha, in pounds;

ii. Identification of all periods when daily records of hours of operation for VOC handling equipment were not kept;

iii. Description of any corrective action taken;

iv. Any deviation from the monitoring and record keeping requirements.

S4. **Testing** (Regulation 2.16, section 4.3.1)

Plant-wide the owner or operator shall retest all control devices and process equipment within ten (10) years since the most recent District accepted performance test or within 180 days after the effective date of the permit if no previous test has been performed. For equipment which has been tested but not within ten years prior to the effective date of this permit the Company may submit within 90 days of the effective date of this permit, contingent on approval by the District, a schedule which shall at a minimum propose testing for all affected equipment within this permit cycle. Thereafter the Company shall retest each affected device at least once every 10 years. Devices of adequately similar design and filter media may be represented by a common performance test contingent upon review and approval by the District of the testing protocol. In lieu of the control efficiency testing, unless required by a Federal Regulation, the owner or operator may submit a signature guarantee from the control device manufacture stating the control device efficiency or accept the District pre-approved control efficiency listed in Appendix C.

The compliance test plan shall be furnished to the District at least 30 days prior to the actual date of the performance test. Attached to the permit is a 'Protocol Checklist for Performance Test' for the information to be submitted in the protocol. (Appendix F)

The owner or operator shall use the most recent District accepted performance test results to demonstrate compliance with the emission limits and in the annual emission inventory reporting.

a. **General**

i. The owner or operator shall submit written performance test plans (protocol) for the control efficiency and capture efficiency. They shall include the EPA test methods that will be used for performance testing, the process operating parameters that will be monitored during the performance test, and the control device performance indicators (e.g. pressure drop, temperature) that will be monitored during the performance test. The owner or operator shall provide the District at least 10 days prior notice of any performance test to afford the District the opportunity to have an observer present.

ii. The owner or operator shall furnish the District with a written report of the results of the performance test within 60 days following the actual date of the performance test.

iii. If performance testing is not completed by the required date, then the company shall calculate emissions using expired test result data or methods such as EPA approved emission factors and guidance documents such as EIIP and AP-42 or other methods upon written approval by the District, whichever results in the greater (more conservative) emissions.

b. **Opacity**

Multiclones, Cyclones, Metal Mesh Filters and Process Equipment for PM Materials

The owner or operator shall demonstrate compliance with the opacity limit by conducting a test in accordance with Method 9 of 40 CFR 60 Appendix A at the same time as the PM performance test. The test shall be performed at maximum capacity or allowable/permitted capacity or at a level of capacity which results in the greatest emissions and is representative of the operations. Failure to perform the test at these conditions may necessitate a re-test. The maximum 6-minute average opacity exhibited during the test period shall be used to determine whether the affected source is in compliance with the standard. The duration of the Method 9 performance test shall be 3 hours (30 6-minute averages).

c. **PM**

Multiclones, Cyclones, Metal Mesh Filters and Process Equipment for PM Materials

The owner or operator shall perform an EPA Reference Method 17 PM performance test on the inlet and outlet of the control device(s) or emission point(s) to determine the emission rate and control efficiency. The test shall be performed at 90% or higher of maximum capacity, or allowable/permitted capacity, or at a level of capacity which results in the greatest emissions and is representative of the operations. Failure to perform the test, at maximum capacity, allowable/permitted capacity, or at a level of capacity which resulted in the greatest emissions, may necessitate a re-test or necessitate a revision of the allowable/permitted capacity of the process equipment depending upon the difference between the testing results and the limit. If the manufacturers guarantee is accepted by the District then either the inlet or outlet will be required, but not both.

d. **VOC**

i. Ball Mills and Process Equipment for VOC Materials

1) The owner or operator shall perform a capture efficiency test using EPA guidelines. In lieu of performing a capture efficiency test, the owner or operator may submit a reasonable estimate of capture efficiency with thorough justification subject to approval by the District.

2) The owner or operator shall perform an EPA Reference Method 25 or Method 18 (whichever is more appropriate), VOC performance test on emission points to determine the emission rate. The tests shall be performed at 90% or higher of maximum capacity, or allowable/permitted capacity, or at a level of capacity which results in the greatest emissions and is representative of the operations. Failure to perform the test, at maximum capacity, allowable/permitted capacity, or at a level of capacity which resulted in the greatest emissions, may necessitate a re-test or necessitate a revision of the allowable/permitted capacity of the process equipment depending upon the difference between the testing results and the limit.

ii. Condenser (C-9) SVR system

1) The owner or operator shall perform a capture efficiency test using EPA guidelines. In lieu of performing a capture efficiency test, the owner or operator may submit a reasonable estimate of capture efficiency with thorough justification subject to approval by the District.

2) The owner or operator shall perform an EPA Reference Method 25 or Method 18 performance test (whichever is more appropriate), on the inlet and outlet of the control device to determine the control efficiency. The test shall be performed at 90% or higher of maximum capacity, or allowable/permitted capacity, or at a level of capacity which results in

the greatest emissions and is representative of the operations. Failure to perform the test, at maximum capacity, allowable/permitted capacity, or at a level of capacity which resulted in the greatest emissions, may necessitate a re-test or necessitate a revision of the allowable/permitted capacity of the process equipment depending upon the difference between the testing results and the limit.

3) The performance test plans shall include at a minimum plans to record the temperature of the process gas exhaust at the exit of each of the condenser's second stage units at one half hour ± 5 minutes into each of the three one hour test runs and within five minutes before the end of each one hour test run.

4) The temperature at the exit of the condenser's second stage units during each test averaged over the three test runs will then be associated with the efficiency demonstrated for VOC removal. To achieve the efficiency demonstrated by the stack test in subsequent operations the daily average temperature achieved during production must be equal to or less than the average temperature recorded during the associated test. Multiple stack tests may be conducted to determine alternate efficiencies at various exhaust gas exit temperatures from the units.

Plant-wide Comments

1. The requirement to track hours of operation for VOC handling equipment is to enable the company to calculate the VOC emissions for the annual emission inventory and for individual pieces of equipment that can exceed the pound per hour, pound per day, or ton per year VOC emission limits contained in this permit.

2. Appendices C, D, and E contain the District accepted default efficiencies for control equipment that has not been tested and equipment to be periodically tested.

3. For all PM emission points, the performance test results shall be reported in lb PM/ton of throughput.

SVR System (C-9)

Applicable Regulations

FEDERALLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
7.25	Standards of Performance for New Sources Using Volatile Organic Compounds	1, 2, 3.2, 4, 5

SVR System (C-9) Specific Conditions

S1. **Standards** (Regulation 2.16, section 4.1.1)

a. **VOC**

The owner or operator shall operate the control device (Dual Stage Condenser with Liquid/Vapor Separator) at all times the process equipment is operating, including periods of startup, shutdown, and malfunction, owners and operators 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. (Regulation 7.25, section 3.1 (BACT)) (Permit 34565-12-C, effective 5/30/2012)

S2. **Monitoring and Record Keeping** (Regulation 2.16, sections 4.1.9.1 and 4.1.9.2)

a. **VOC**

i. The owner or operator shall monitor and record the temperature of each of the SVR System (C-9) Condenser's second stage units at least twice per calendar day but not closer together than 8 hours apart for each reading. A daily average shall be made of all temperature readings taken for each calendar day to be compared to the temperatures established during District approved stack testing.

Control ID	Description	Performance Indicator	Operating Range
C-9	SVR System (Dual Stage Condenser with Liquid/Vapor Separator)	Temperature	
		(Second Stage)	< 26 °F
		(Second Stage)	26 °F - 30 °F
		(Only One Stage Operations)	30 °F - 35 °F
		(No Stage Operation)	> 35 °F

ii. If process equipment associated with the condenser is only operated for half of the day (12 hours) or less then only one temperature reading shall be required for that operating day, however; a declaration shall be recorded that the associated process equipment only operated for less than 12 hours of the calendar day in lieu of the second temperature reading.

iii. If process equipment associated with the condenser is not operated at all during a calendar day then no temperature reading is required and a record shall be made that none of the associated equipment was operated.

iv. The condenser VOC removal efficiency used in calculations shall be considered to be zero percent during periods of time when the condenser's second stage daily average exhaust temperature is higher than tested in District accepted stack tests.

v. If there is any time that the control device is bypassed or not in operation when the process is operating, then the owner or operator shall keep a record of the following for each bypass event:

1) Date;
2) Start time and stop time;
3) Identification of the control device and process equipment;
4) Summary of the cause or reason for each bypass event;
5) Corrective action taken to minimize the extent or duration of the bypass event; and
6) Measures implemented to prevent reoccurrence of the situation that resulted in the bypass event.

S3. **Reporting** (Regulation 2.16, section 4.1.9.3)

The owner or operator shall include, at a minimum, the following information in the semi-annual compliance monitoring reports. If no deviations from permit requirements occur during a reporting period, the owner or operator shall submit a negative declaration stating that no permit deviations occurred during the reporting period.

a. **VOC**

i. Any deviation from the requirement to record the results of the temperature readings;

ii. Identification of all periods when the temperature was outside the operating ranges; and

iii. Description of any corrective action taken for each excursion.

SVR System (C-9) Comments

1. The condenser (C-9) replaced the previous condensers which were considered to be BACT for the associated process equipment. Since this condenser is more efficient than the older ones it is also considered BACT for Regulation 7.25.

Emission Unit U-1: Boiler Room

Boilers are used to generate heat and steam for the plant.

U-1 Applicable Regulations

FEDERALLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
7.06	Standards of Performance for New Indirect Heat Exchangers	1, 2, 3.1, 4.1.4, 4.2, 5.1.1, 8

DISTRICT ONLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
5.00	Definitions (STAR)	1, 2
5.01	General Provisions (STAR)	1 through 2
5.20	Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant (STAR)	1 through 6
5.21	Environmental Acceptability for Toxic Air Contaminants (STAR)	1 through 5
5.22	Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant (STAR)	1 through 5
5.23	Categories of Toxic Air Contaminants (STAR)	1 through 6

U-1 Equipment

Emission Point	Description	Applicable Regulation	Control ID	Stack ID
E-1	Boiler #5, natural gas fired only (Make: Cleaver Brooks; Model CB-200-300; Capacity: 12.533 MMBTU/hr; Installation: 1988)	STAR 7.06	N/A	S-1
E-2	Boiler #4, natural gas fired only (Make: Cleaver Brooks; Model CB-200-300; Capacity: 12.533 MMBTU/hr; Installation: 1988)			S-2
E-138	Space Heater (Natural Gas, 0.2 MMBTU/hr) (Insignificant Activity – de minimis for STAR)	STAR	N/A	S-55

U-1 Control Devices

There are no control devices associated with this unit.

U-1 Specific Conditions

S1. **Standards** (Regulation 2.16, section 4.1.1)

a. **PM**

The owner or operator shall not cause to be discharged into the atmosphere from Emission Points E-1 and E-2 particulate matter in excess of 0.342 pounds per million BTU actual total heat input. (Regulation 7.06, section 4.1.4)

b. **Opacity**

The owner or operator shall not cause to be discharged into the atmosphere from any affected facility particulate matter emissions which exhibit greater than 20% opacity. (Regulation 7.06, section 4.2)

c. **SO_2**

The owner or operator shall not cause to be discharged into the atmosphere from Emission Points E-1 and E-2 any gases which contain sulfur dioxide in excess of 1.0 pound per million BTU actual total heat input for combustion of gaseous fuels.
(Regulation 7.06, section 5.1.1)

d. **TAC**

The owner or operator shall not allow emissions of any TAC to exceed environmentally acceptable (EA) levels, whether specifically established by modeling or determined by the District to be de minimis. (Regulations 5.00 and 5.21)

S2. **Monitoring and Record Keeping** (Regulation 2.16, sections 4.1.9.1 and 4.1.9.2)

a. **Opacity**

There are no monitoring or record keeping requirements for Opacity compliance.
(U-1 Comment 1)

b. **PM**

There are no monitoring or record keeping requirements for PM compliance.
(U-1 Comment 2)

c. **SO_2**

There are no monitoring or record keeping requirements for SO_2 compliance.
(U-1 Comment 2)

d. **TAC**

There are no monitoring or record keeping requirements for TAC compliance.
(U-1 Comment 3)

S3. **Reporting** (Regulation 2.16, section 4.1.9.3)

The owner or operator shall include, at a minimum, the following information in the semi-annual compliance monitoring reports.

a. **Opacity**

There are no routine compliance reporting requirements for this equipment.
(U-1 Comment 1)

b. **PM**

There are no routine compliance reporting requirements for this equipment. (U-1 Comment 2)

c. **SO_2**

There are no routine compliance reporting requirements for this equipment. (U-1 Comment 2)

d. **TAC**

There are no routine compliance reporting requirements for this equipment. (U-1 Comment 3)

U-1 Comments

1. The District has determined that using a natural gas fired boiler will inherently meet the 20% opacity standard. Therefore, the company is not required to perform periodic monitoring to demonstrate compliance with the opacity standard.
2. Using AP-42 emission factors and combusting natural gas, the boilers cannot exceed the pounds per million BTU emission standards. Therefore, there are no monitoring, record keeping, and reporting requirements for these boilers with respect to PM and SO_2 emission limits.
3. The TAC emissions from the combustion of natural gas are considered to be "de minimis emissions" by the District. This includes all of the emissions from a process or process equipment for which the only emissions are the products of combustion of natural gas, such as from a natural gas-fired boiler or turbine, but does not include the other emissions from a process or process equipment that are not the products of the combustion of natural gas.
4. The boiler commenced construction prior to June 9, 1989 and therefore is not subject to 40 CFR part 60 Subpart Dc - Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units.
5. The Source submitted a Subpart JJJJJJ Notification on September 14, 2011 indicating that fuel oil is no longer used at the facility. Per §63.11195(e), a gas-fired boiler is not subject to the subpart.

Emission Unit U-2: Hot Air Furnace

Raw materials are melted and atomized into small particles which solidify while passing through the casting chamber, and on through screens into collection units.

U-2 Applicable Regulations

FEDERALLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
6.28	Standard of Performance for Existing Hot Air Aluminum Atomization Processes	1, 2, 3
7.08	Standards of Performance for New Process Operations	1, 2, 3.1.1, 3.3.1
40 CFR Part 64	Compliance Assurance Monitoring	64.1 through 64.10

DISTRICT ONLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
5.00	Definitions (STAR)	1, 2
5.01	General Provisions (STAR)	1 through 2
5.20	Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant (STAR)	1 through 6
5.21	Environmental Acceptability for Toxic Air Contaminants (STAR)	1 through 5
5.22	Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant (STAR)	1 through 5
5.23	Categories of Toxic Air Contaminants (STAR)	1 through 6

U-2 Equipment

Emission Point	Description	Applicable Regulation	Control ID	Stack ID
E-3	Atomization Furnace Rated pot capacity of 40,000 lb, 8 MMBTU/hr natural gas fired furnace (Make: PLIBRICO; Model: Custom; Capacity: 3,000 lb/hr; Installation: 1955)	STAR 6.28 40 CFR 64	C-E-5 C-E-7	S-3 S-4 S-5
E-4	M-7 Screen Room (Make: Rotex; Model: 42AAASS; Capacity: 1,500 lb/hr, Installation: 1989) (Insignificant Activity – de minimis for STAR)	STAR 7.08	N/A	Fugitive
E-6	M-8 Screen Room (Make: Rotex; Model: 42AAASS; Capacity: 1,500 lb/hr, Installation: 1996) (Insignificant Activity – de minimis for STAR)		N/A	Fugitive
E-5a	Multicyclone Drum Loading (Make: Dustex; Model: M-13; Capacity: 1,500 lb/hr, Installation: 1999) (Insignificant Activity – de minimis for STAR)		N/A	Fugitive
E-7a	Multicyclone Drum Loading (Make: Dustex; Model: M-14; Capacity: 1,500 lb/hr, Installation: 2011) (Insignificant Activity – de minimis for STAR)		N/A	Fugitive
E-139	Compressed Air Preheater (Natural Gas, 2 MMBTU/hr) (Insignificant Activity – de minimis for STAR)	STAR (U-2 Comment 1)	N/A	S-56
E-140	Johnson Gas Appliance Nozzle Heater (Natural Gas, 0.4 MMBTU/hr) (Insignificant Activity – de minimis for STAR)		N/A	Fugitive
E-266	Space Heater (Natural Gas, 0.2 MMBTU/hr) (Insignificant Activity – de minimis for STAR)		N/A	S-83

U-2 Control Devices

Control ID	Description	Stack ID
C-E-5	M-13 Dustex 1 Multicyclone to control emissions from Emission Point E-3, rated capacity of 11,000 scfm, installed in 1999.	S-4
C-E-7	M-14 Dustex 2 Multicyclone to control emissions from Emission Point E-3, rated capacity of 10,800 scfm, installed in 2011.	S-5

U-2 Specific Conditions

S1. **Standards** (Regulation 2.16, section 4.1.1)

a. **Opacity**

i. No owner or operator subject to this regulation shall cause to be discharged into the atmosphere from any affected facility, or from any air pollution control equipment installed on any affected facility, any gases that may contain particulate matter that is equal to or greater than 20% opacity.
(Regulation 6.28, section 3.1)

ii. The owner or operator shall not cause or permit the discharge of emissions equal to or in excess of 20% opacity.
(Regulation 7.08, section 3.1.1)

b. **PM**

i. No owner or operator subject to this regulation shall cause to be discharged into the atmosphere from any affected facility, or from any air pollution control equipment installed on any affected facility, any gases that may contain particulate matter that is in excess of 13.76 pounds per ton of aluminum powder atomized. (Regulation 6.28, section 3.2)

ii. The owner or operator shall utilize controls at all times Emission Point E-3 is in operation and 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. (Regulation 2.16, section 4.1.1)

iii. For Emission Points E-4, E-6, E-5a and E-7a, the owner or operator shall not allow PM emissions to exceed 3.00 lb/hr. (Regulation 7.08, section 3.1.2)

c. **TAC**

i. The owner or operator shall not allow emissions of any TAC to exceed environmentally acceptable (EA) levels, whether specifically established by modeling or determined by the District to be de minimis.
(Regulations 5.00 and 5.21)

ii. The owner or operator shall not allow aluminum emissions to exceed the emission standards listed in the following table.
(Regulation 5.21, section 4.2 and section 4.3)

Stack ID	Emission Point	Description	(lb/hr)	Basis of Limit
S-4	E-3	Atomization Furnace	8.24	Controlled PTE
S-5	E-3	Atomization Furnace	7.34	Controlled PTE

(U-2 Comments 2 and 3)

S2. **Monitoring and Record Keeping** (Regulation 2.16, sections 4.1.9.1 and 4.1.9.2)

a. **Opacity**

i. For Emission Points E-4, E-6, E-5a, and E-7a, there are no opacity monitoring or record keeping requirements. (U-2 Comment 4)

ii. For Emission Point E-3, the owner or operator shall comply with the following requirements until pressure drop transmitters are installed on the multicyclones and shall be used as a back-up in the event of a transmitter malfunction:

1) The owner or operator shall conduct a daily one-minute visible emissions survey on Emission Point E-3, during normal operation. No more than four emission points shall be observed simultaneously. The opacity surveys can be performed on the building exhaust points if the process is inside an enclosure. (40 CFR 64.3(b)(4)(iii)) (U-2 Comment 5)

2) At emission points where visible emissions are observed, the owner or operator shall initiate corrective action within eight hours of the initial observation. If the visible emissions persist, the owner or operator shall perform or cause to be performed a Method 9, in accordance with 40 CFR Part 60, Appendix A, within 24 hours of the initial observation.

3) The owner or operator shall maintain records, daily, of the results of all visible emissions surveys and tests. Records of the results of any visible emissions survey shall include the date of the survey, the name of the person conducting the survey, whether or not visible emissions were observed, and what if any corrective action was performed. If an emission point is not being operated during a given day, then no visible emission survey needs to be performed and a negative declaration shall be entered in the record.

iii. For Emission Point E-3 to demonstrate compliance with the opacity standard:

1) The owner or operator shall conduct a monthly one-minute visible emissions survey on Emission Point E-3, during normal operation. No more than four emission points shall be observed simultaneously. The opacity surveys can be performed on the building exhaust points if the process is inside an enclosure.
(U-2 Comment 5)

2) At emission points where visible emissions are observed, the owner or operator shall initiate corrective action within eight hours of the initial observation. If the visible emissions persist, the owner or operator shall perform or cause to be performed a Method 9, in accordance with 40 CFR Part 60, Appendix A, within 24 hours of the initial observation.

3) The owner or operator shall maintain records, monthly, of the results of all visible emissions surveys and tests. Records of the results of any visible emissions survey shall include the date of the survey, the name of the person conducting the survey, whether or not visible emissions were observed, and what if any corrective action was performed. If an emission point is not being operated during a given month, then no visible emission survey needs to be performed and a negative declaration shall be entered in the record.

b. **PM**

i. For Emission Point E-3, the owner or operator shall keep a monthly record of the amount (in tons) of aluminum processed.

ii. The owner or operator shall use the emission factors in Appendix A unless alternative calculation methods or factors are approved by the District to demonstrate compliance with the emission limit in U-2 Specific Conditions S1.b.i.

iii. For Emission Point E-3, the owner or operator shall install a pressure drop transmitter on Control Devices C-E-5 and C-E-7 within 60 days of the effective date of this permit. (40 CFR 64.3(b)(4)(iii))

iv. For Control Devices C-E-5 and C-E-7, the owner or operator shall determine the appropriate pressure drop range across the multicyclones to be used as the indicators of normal operation of the control devices. (40 CFR 64.3(b)(4)(iii)) (U-2 Comment 5)

1) The owner or operator shall monitor and record the pressure drop across the multicyclones at least once each per operating day. The owner or operator shall establish an appropriate pressure drop range for the normal operation of the multicyclones after ninety (90) consecutive days of observation.

2) The owner or operator shall submit to the District the established appropriate ranges of the pressure drop for the multicyclones. The report shall be submitted within 30 days following the end of the 90 day monitoring period.

v. For Control Devices C-E-5 and C-E-7, the owner or operator shall monthly perform a visual inspection of the structural and mechanical integrity of the dust collectors for signs of damage, air leakage, corrosion, or other equipment defects, and repair and/or replace defective components as needed. The owner or operator shall maintain monthly records of the results. (40 CFR 64.3(b)(4)(iii)) (U-2 Comment 5)

vi. For Emission Point E-3, if there is any time that the control device is bypassed or not in operation when the process is operating, then the owner or operator shall keep a record of the following for each bypass event:

1) Date;
2) Start time and stop time;
3) Identification of the control device and process equipment;
4) Calculate PM emissions during the bypass in lb/ton of aluminum powder atomized using the most recent emission factor;
5) Summary of the cause or reason for each bypass event;
6) Corrective action taken to minimize the extent or duration of the bypass event; and
7) Measures implemented to prevent reoccurrence of the situation that resulted in the bypass event.

vii. For Emission Points E-4, E-6, E-5a, and E-7a, there are no PM monitoring or record keeping requirements. (U-2 Comment 4)

c. **TAC**

For Emission Point E-3:

i. The owner or operator shall maintain records sufficient to demonstrate environmental acceptability, including, but not limited to MSDS, analysis of emissions, and/or modeling results. (U-2 Comment 3)

ii. The owner or operator shall monthly calculate and record TAC emissions for this unit in order to demonstrate compliance with the TAC emission standards required in U-2 Specific Condition S1.c.ii.

iii. The owner or operator shall re-evaluate the environmental acceptability and document the environmentally acceptable emissions if a new TAC is introduced or the content of a TAC in a raw material increases above *de minimis* uncontrolled, or any TAC emission exceeds the TAC emissions standards required in U-2 Specific Condition S1.c.ii.

S3. **Reporting** (Regulation 2.16, section 4.1.9.3)

The owner or operator shall include, at a minimum, the following information in the semi-annual compliance monitoring reports. If no deviations from permit requirements occur during a reporting period, the owner or operator shall submit a negative declaration stating that no permit deviations occurred during the reporting period.

a. **Opacity**

i. For Emission Point E-3:

1) Any deviation from the requirement to perform daily and monthly visible emission (VE) surveys;
2) Any deviation from the requirement to record the results of each VE survey;
3) The number, date, and time of each VE survey where visible emissions were observed;
4) Identification of all periods of exceedance of the opacity standard; and
5) Description of any corrective action taken for each exceedance.

ii. For Emission Points E-4, E-6, E-5a, and E-7a, there are no opacity compliance reporting requirements. (U-2 Comment 4)

b. **PM**

i. For Emission Point E-3:

1) Any deviation from the requirement to record the results of visual inspections of the control devices;
2) Identification of all periods of exceedances of the emission standard including the quantity of excess emissions; and
3) Description of any corrective action taken for each exceedance.

ii. For Emission Points E-4, E-6, E-5a, and E-7a, there are no PM compliance reporting requirements. (U-2 Comment 1)

c. **TAC**

i. The owner or operator shall report any conditions that were inconsistent with those conditions analyzed in the most recent Environmental Acceptability Demonstration or a negative declaration stating that operations were within the conditions analyzed. This includes, but is not limited to, control device upset conditions.

ii. For any conditions outside the analysis, the owner or operator shall re-analyze to determine whether these conditions comply with the STAR program. Changes to the air dispersion modeling program or meteorological data used in the most recent Environmental Acceptability Demonstration do not trigger the requirement to re-analyze. (Regulation 5.21 sections 4.22 – 4.24)

iii. For Emission Point E-3, the owner or operator shall identify all periods of exceeding a TAC emission standard during a reporting period. The report shall include the following:

1) Emission Unit ID number and emission point ID number;
2) Identification of all periods during which a deviation occurred;
3) A description, including the magnitude, of the deviation;
4) If known, the cause of the deviation;
5) A description of all corrective actions taken to abate the deviation; and

iv. The owner or operator shall submit the re-evaluated EA demonstration to the District within 6 months after a change of a raw material as described in U-2 Specific Condition S2.c.iii.

U-2 Comments

1. Emission Points E-139, E-140, and E-266 are only subject to STAR and are de minimus by definition since they are insignificant activities and combust natural gas, therefore there are no monitoring, record keeping, reporting, or testing requirements.

2. Emission Point E-3 has TAC emission standards since its EA Demonstration was based on controlled PTE.

3. Eckart America Corporation submitted a STAR Environmental Acceptability Demonstration to the District on **March 31, 2009, July 27, 2012, February 6, 2014, and May 16, 2014**. Per the most recent EA demonstration, the AERMOD 8-hour MAC for aluminum was 55.04022 $\mu g/m^3$. Using APCD's equation 4 (Regulation 5.21, section 2.2), the resulting HQ is 1.10. The MAC is located on industrial property. The industrial HQ is below the EA_{nc} of 3.0. An AERMOD run was also completed with just the non-industrial receptor points. The residential 8-hour MAC for aluminum was 37.00945 $\mu g/m^3$. The residential HQ is 0.74, which is below the EA_{nc} of 1.0. Eckart is in compliance with the STAR EAGs.

4. Using an AP-42 emission factor (Chapter 11.19, Crushed Stone Processing and Pulverized Mineral Processing) Emission Points E-4, E-6, E-5a, and E-7a cannot exceed the emission standards uncontrolled, therefore there are no monitoring, record keeping, reporting, or testing requirements. The District has determined that since these emission points are Insignificant Activities there should not be any opacity exceedances, therefore, there are no monitoring, record keeping, reporting, or testing requirements.

5. The 40 CFR 64, Compliance Assurance Monitoring (CAM) for Major Stationary Sources Plan was received January 15, 2013. The revised CAM Plan was received May 16, 2014.

Emission Unit U-3: Hot Air Direct Convey and Air Slide System

Aluminum powder is conveyed from the screen rooms (U-2) to the Buhler A storage tank. The powder is then conveyed by a pod to rail car loading or classifiers (U-6). Product can also be transferred into the airslide hopper from drums and supersacks via a docking station and transferred through a pod to rail car loading.

U-3 Applicable Regulations

FEDERALLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
2.05	Prevention of Significant Deterioration of Air Quality	1
6.09	Standards of Performance for Existing Process Operations	1, 2, 3.1, 3.4, 5
7.08	Standards of Performance for New Process Operations	1, 2, 3.1.1, 3.3.1
40 CFR Part 64	Compliance Assurance Monitoring	64.1 through 64.10

DISTRICT ONLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
5.00	Definitions (STAR)	All
5.01	General Provisions (STAR)	1 through 4
5.20	Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant (STAR)	1 through 6
5.21	Environmental Acceptability for Toxic Air Contaminants (STAR)	1 through 5
5.22	Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant (STAR)	1 through 5
5.23	Categories of Toxic Air Contaminants (STAR)	1 through 6

U-3 Equipment

Emission Point	Description	Applicable Regulation	Control ID	Stack ID
E-8a	Buhler A Storage Tank (Make: Kirk & Blum; Model: Custom; Capacity: 3,500 lb/hr; Installation: 1995)	2.05 STAR 7.08 40 CFR 64	C-E-8 C-F-007	S-6
E-8b	Buhler A Weigh Tank (Make: Kirk & Blum; Model: Custom; Capacity: 3,500 lb/hr; Installation: 1995)	STAR 7.08		
E-8c	Buhler A Conveyor Pod (Make: Kirk & Blum; Model: Custom; Capacity: 3,500 lb/hr; Installation: 1995)			
E-9	Rail Car Loading (with Cyclone) (Make: ACFX; Model: 2970 B; Capacity: 3,000 lb/hr; Installation: 1960, Modification: 1995)	2.05 STAR 7.08 40 CFR 64	C-E-9 C-F-006	S-7
E-229	Docking/Transfer Station (Make: Custom; Model: Custom; Capacity: 2,700 lb/hr; Installation: 2009) (Insignificant Activity – de minimis for STAR)	STAR 7.08	C-F-005	S-57
E-141	Air Slide Conveyor Pod (Make: Kirk & Blum; Model: Custom; Capacity: 2,700 lb/hr; Installation: 1965) (Insignificant Activity – de minimis for STAR)	STAR 6.09	C-F-005	S-57

U-3 Control Devices

Control ID	Description	Stack ID
C-E-8	Cyclone (Make: Kirk & Blum; Model: Custom)	S-6
C-F-007	Metal Mesh Filter	S-6
C-E-9	Cyclone (Make: ACFX; Model: NA)	S-7
C-F-006	Metal Mesh Filter	S-7
C-F-005	Air Slide Metal Mesh Filter	S-57

U-3 Specific Conditions

S1. **Standards** (Regulation 2.16, section 4.1.1)

a. **Opacity**

The owner or operator shall not cause or permit the discharge of emissions equal to or in excess of 20% opacity. (Regulations 6.09, section 3.1; 7.08, section 3.1.1)

b. **PM**

i. For Emission Points E-8a and E-9 combined, the owner or operator shall not allow PM emissions to exceed 25 tons per 12 consecutive month period. (Regulation 2.05)

ii. For Emission Point E-8a, the owner or operator shall not allow PM emissions to exceed 4.62 lb/hr. (Permit 84-09-C, Effective 3/31/2009)

iii. For Emission Point E-141, the owner or operator shall not allow PM emissions to exceed 5.01 lb/hr. (Regulation 6.09, section 3.2)
(Permit 36563-13-C, effective 4/26/2013)

iv. For Emission Points E-8b and E-8c, the owner or operator shall not allow PM emissions to exceed 5.08 lb/hr from each emission point.
(Regulation 7.08, section 3.1.2)

v. For Emission Point E-9, the owner or operator shall not allow PM emissions to exceed 4.62 lb/hr. (Regulation 7.08, section 3.1.2)

vi. For Emission Point E-229, the owner or operator shall not allow PM emissions to exceed 4.32 lb/hr. (Regulation 7.08, section 3.1.2)

vii. The owner or operator shall utilize controls at all times Emission Points E-8a and E-9 are in operation and shall, to the extent practicable, maintain and operate any affected facility included associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. (Regulation 2.16, section 4.1.1)

c. **TAC**

i. The owner or operator shall not allow emissions of any TAC to exceed environmentally acceptable (EA) levels, whether specifically established by modeling or determined by the District to be de minimis.
(Regulations 5.00 and 5.21)

ii. The owner or operator shall not allow aluminum emissions to exceed the emission standards listed in the following table.
(Regulation 5.21, section 4.2 and section 4.3)

Stack ID	Emission Point	Description	(lb/hr)	(lb/8-hr)	Basis of Limit
S-6	E-8a	Buhler A Storage Tank	1.00	1.00	De Minimis
S-7	E-9	Rail Car Loading	1.00	1.00	De Minimis

(U-3 Comment 3)

S2. **Monitoring and Record Keeping** (Regulation 2.16, sections 4.1.9.1 and 4.1.9.2)

a. **Opacity**

i. For Emission Points E-8a and E9, to demonstrate compliance with the opacity standard:

1) The owner or operator shall conduct a monthly one-minute visible emissions survey during normal operation. No more than four emission points shall be observed simultaneously. The opacity surveys can be performed on the building exhaust points if the process is inside an enclosure.

2) At emission points where visible emissions are observed, the owner or operator shall initiate corrective action within eight hours of the initial observation. If the visible emissions persist, the owner or operator shall perform or cause to be performed a Method 9, in accordance with 40 CFR Part 60, Appendix A, within 24 hours of the initial observation.

3) The owner or operator shall maintain records, monthly, of the results of all visible emissions surveys and tests. Records of the results of any visible emissions survey shall include the date of the survey, the name of the person conducting the survey, whether or not visible emissions were observed, and what if any corrective action was performed. If an emission point is not being operated during a given month, then no visible emission survey needs to be performed and a negative declaration shall be entered in the record.

ii. For Emission Points E-8a and E-9, to demonstrate compliance with the opacity standard as a back-up in the event of a transmitter malfunction:

1) The owner or operator shall conduct a daily one-minute visible emissions survey during normal operation. No more than four emission points shall be observed simultaneously. The opacity surveys can be performed on the building exhaust points if the process is inside an enclosure.
(40 CFR 64.3(b)(4)(iii)) (U-3 Comment 0)

2) At emission points where visible emissions are observed, the owner or operator shall initiate corrective action within eight hours of the initial observation. If the visible emissions persist, the owner or operator shall perform or cause to be performed a Method 9, in accordance with 40 CFR Part 60, Appendix A, within 24 hours of the initial observation.

3) The owner or operator shall maintain records, daily, of the results of all visible emissions surveys and tests. Records of the results of any visible emissions survey shall include the date of the survey, the name of the person conducting the survey, whether or not visible emissions were observed, and what if any corrective action was performed. If an emission point is not being operated during a given day, then no visible emission survey needs to be performed and a negative declaration shall be entered in the record.

iii. For Emission Points E-8b, E-8c, E-141and E-229: There are no opacity monitoring or record keeping requirements. (U-3 Comment 2)

b. **PM**

i. For Emission Points E-8a and E-9, the owner or operator shall keep daily records of all production rates and hours of operation. They shall, monthly, calculate the amount of hourly PM emitted, based on the hours of actual operation of the processes during each day and the design collection efficiency of any filtration devices used, to control emissions below the standard.

ii. For Emission Points E-8a and E-9, the owner or operator shall monthly calculate and record the previous 12 consecutive month PM emissions in order to

demonstrate the status of compliance with the tons per 12 consecutive month period limits.

iii. The owner or operator shall use the emission factors in Appendix A unless alternative calculation methods or factors are approved by the District to demonstrate compliance with the hourly or annual emission limits in U-3 Specific Conditions S1.b. (U-3 Comment 2)

iv. For Control Devices C-E-8, C-E-9, C-F-006, and C-F-007: The owner or operator shall monthly perform a visual inspection of the structural and mechanical integrity of the dust collectors for signs of damage, air leakage, corrosion, or other equipment defects, and repair and/or replace defective components as needed. The owner or operator shall maintain monthly records of the results. (40 CFR 64.3(b)(4)(iii)) (U-3 Comment 0)

v. The owner or operator shall monitor and record the pressure drop across the Metal Mesh Filters at least once per each operating day. (40 CFR 64.3(b)(4)(iii))

Control ID	Description	Performance Indicator	Operating Range
C-F-007	Metal Mesh Filter	Pressure drop	0.06 – 2 psi
C-F-006	Metal Mesh Filter	Pressure drop	0.06 – 2 psi

vi. For Emission Points E-8a and E-9: If there is any time that the control device is bypassed or not in operation when the process is operating, then the owner or operator shall keep a record of the following for each bypass event:

1) Date;
2) Start time and stop time;
3) Identification of the control device and process equipment;
4) Calculate PM emissions during the bypass in lb/hr using the most recent emission factor;
5) Summary of the cause or reason for each bypass event;
6) Corrective action taken to minimize the extent or duration of the bypass event; and
7) Measures implemented to prevent reoccurrence of the situation that resulted in the bypass event.

vii. For Emission Points E-8b, E-8c, E-141 and E-229: There are no PM compliance monitoring or record keeping requirements for this equipment. (U-3 Comment 2)

c. **TAC**

i. The owner or operator shall maintain records sufficient to demonstrate environmental acceptability, including, but not limited to MSDS, analysis of emissions, and/or modeling results.

ii. The owner or operator shall monthly calculate and record TAC emissions for Emission Points E-8a and E-9 in order to demonstrate compliance with the TAC emission standards required in U-3 Specific Condition S1.c.ii.

iii. The owner or operator shall re-evaluate the environmental acceptability and document the environmentally acceptable emissions if a new TAC is introduced or the content of a TAC in a raw material increases above *de minimis*.

S3. **Reporting** (Regulation 2.16, section 4.1.9.3)

The owner or operator shall include, at a minimum, the following information in the semi-annual compliance monitoring reports. If no deviations from permit requirements occur during a reporting period, the owner or operator shall submit a negative declaration stating that no permit deviations occurred during the reporting period.

a. **Opacity**

i. For Emission Points E-8a and E-9:

1) Any deviation from the requirement to perform daily and monthly visible emission (VE) surveys;
2) Any deviation from the requirement to record the results of each VE survey;
3) The number, date, and time of each VE survey where visible emissions were observed;
4) Identification of all periods of exceedance of the opacity standard; and
5) Description of any corrective action taken for each exceedance.

ii. For Emission Points E-141 and E-229: There are no opacity compliance reporting requirements for this equipment. (U-3 Comment 2)

b. **PM**

i. For Emission Points E-8a and E-9:

1) Identification of all periods of exceedances of the lb/hr emission standard for each emission point including the quantity of excess emissions;
2) Identification of all periods of exceedances of the tons per 12 consecutive month period limits including the quantity of excess emissions; and
3) Description of any corrective action taken for each exceedance.

ii. For Emission Points E-8b, E-8c, E-141 and E-229: There are no PM compliance reporting requirements for this equipment. (U-3 Comment 2)

iii. For Control Devices:

1) Any deviation from the requirement to record the results of visual inspections of the control devices;
2) Any deviation from the requirement to record the results of the pressure drop readings;
3) Identification of all periods when the pressure drop was outside the operating range; and
4) Description of any corrective action taken for each exceedance.

c. **TAC**

i. The owner or operator shall report any conditions that were inconsistent with those conditions analyzed in the most recent Environmental Acceptability Demonstration or a negative declaration stating that operations were within the conditions analyzed. This includes, but is not limited to, control device upset conditions.

ii. For any conditions outside the analysis, the owner or operator shall re-analyze to determine whether these conditions comply with the STAR program. Changes to the air dispersion modeling program or meteorological data used in the most recent Environmental Acceptability Demonstration do not trigger the requirement to re-analyze. (Regulation 5.21 sections 4.22 – 4.24)

iii. For Emission Points E-8a and E-9: The owner or operator shall identify all periods of exceeding a TAC emission standard during a reporting period. The report shall include the following:

1) Emission Unit ID number and emission point ID number;
2) Identification of all periods during which a deviation occurred;
3) A description, including the magnitude, of the deviation;
4) If known, the cause of the deviation;
5) A description of all corrective actions taken to abate the deviation; and
6) If no deviations occur during a quarterly reporting period, the report shall contain a negative declaration.

iv. The owner or operator shall submit the re-evaluated EA demonstration to the District within 6 months after a change of a raw material as described in U-3 Specific Condition S2.c.iii.

U-3 Comments

1. The addition of Emission Point E-8a, in 1995 was a modification to Emission Point E-9. In so doing, E-9 no longer was subject to the existing source Regulation 6.09 and became subject to the new source Regulation 7.08. The potential emissions of the project to install Emission Point E-8a and modification of Emission Point E-9 was 132.39 tons per year which would be a major modification for PSD/Non-Attainment NSR, therefore the company has a PSD/Non-Attainment avoidance limit of less than 25 tons per year.

2. Using AP-42 emission factors (Chapters 11.12 and 11.24 for 'Concrete Batching; Pneumatic Cement Unloading to Elevated Bin' and 'Metallic Mineral Processing; Material Handling and Transfer – low moisture ore'), E-8b, E-8c, E-141 and E-229 cannot exceed the emission standards uncontrolled, therefore there are no monitoring, record keeping, reporting, or testing requirements. In addition, the uncontrolled potential emissions of PM are less than 5 tons, therefore, these points are Insignificant Activities, and these emission points are de minimis for STAR. The District has determined that since these emission points are Insignificant Activities there should not be any opacity exceedances, therefore, there are no monitoring, record keeping, reporting, or testing requirements.

3. Emission Points E-8b, E-8c, E-141 and E-229 are Insignificant Activities and by definition de minimis for STAR. Emission Points E-8a and E-9 meet the lb/hr de minimis standard controlled.

   The 40 CFR 64, Compliance Assurance Monitoring (CAM) for Major Stationary Sources Plan was received January 15, 2013. The revised CAM Plan was received May 16, 2014.

Emission Unit U-4: Hot Air Bin Fill

Aluminum powder is transferred from the hot air screen rooms (U-2) or the classifiers (U-6) to the storage tanks and then loaded into tote bins or drums.

U-4 Applicable Regulations

FEDERALLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
2.05	Prevention of Significant Deterioration of Air Quality	1
7.08	Standards of Performance for New Process Operations	1, 2, 3.1.1, 3.3.1

DISTRICT ONLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
5.00	Definitions (STAR)	1, 2
5.01	General Provisions (STAR)	1 through 2
5.20	Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant (STAR)	1 through 6
5.21	Environmental Acceptability for Toxic Air Contaminants (STAR)	1 through 5
5.22	Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant (STAR)	1 through 5
5.23	Categories of Toxic Air Contaminants (STAR)	1 through 6

U-4 Equipment

Emission Point	Description	Applicable Regulation	Control ID	Stack ID
E-11	Large Powder Storage Tank 1 (Make: Kirk & Blum; Model: Custom; Capacity: 3,000 lb/hr; Installation: 1989)	2.05 STAR 7.08	C-E-11 C-F-008	S-9
E-12	Large Powder Storage Tank 2 (Make: Kirk & Blum; Model: Custom; Capacity: 3,000 lb/hr; Installation: 1989)		C-E-12 C-F-009	S-11
E-13	Tote/Drum Fill Station #1 (Make: Tote; Model: A-74; Capacity: 3,000 lb/hr; Installation: 1989) (Insignificant Activity – de minimis for STAR)		C-E-11 F-008	S-9
E-15	Tote/Drum Fill Station #2 (Make: Tote; Model: A-74; Capacity: 3,000 lb/hr; Installation: 1989) (Insignificant Activity – de minimis for STAR)		C-E-12 C-F-009	S-11

U-4 Control Devices

Control ID	Description	Stack ID
C-E-11	Bin Fill 1 Cyclone Air vent cyclone to control emissions from large powder storage tank #1, installed in 1989. (Make: Kirk & Blum; Model: Custom)	S-9
C-F-008	Bin Fill 1 Metal Mesh Filter (Make: BMI Industrial Systems; Model: Custom; Capacity: 1 cfm; Installed: 2009)	S-9
C-E-12	Bin Fill 2 Cyclone Air vent cyclone to control emissions from large powder storage tank #2, installed in 1989. (Make: Kirk & Blum; Model: Custom)	S-11
C-F-009	Bin Fill 2 Metal Mesh Filter (Make: BMI Industrial Systems; Model: Custom; Capacity: 1 cfm; Installed: 2009)	S-11

U-4 Specific Conditions

S1. **Standards** (Regulation 2.16, section 4.1.1)

a. **Opacity**

The owner or operator shall not cause or permit the discharge of emissions equal to or in excess of 20% opacity. (Regulation 7.08, section 3.1.1)

b. **PM**

i. For Emission Points E-11, E-12, E-13 and E-15 combined, the owner or operator shall not allow PM emissions to exceed 25 tons per 12 consecutive month period. (Regulation 2.05)

ii. For Emission Points E-11 and E-12, the owner or operator shall not allow PM emissions to exceed 2.58 lb/hr from each emission point.
(Permit 84-09-C, Effective 3/31/2009)

iii. For Emission Points E-13 and E-15, the owner or operator shall not allow PM emissions to exceed 4.62 lb/hr from each emission point.
(Regulation 7.08, section 3.1.2)

iv. The owner or operator shall utilize controls at all times Emission Points E-11, E-12, E-13 and E-15 are in operation and shall, to the extent practicable, maintain and operate any affected facility included associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. (Regulation 2.16, section 4.1.1)

c. **TAC**

i. The owner or operator shall not allow emissions of any TAC to exceed environmentally acceptable (EA) levels, whether specifically established by modeling or determined by the District to be de minimis.
(Regulations 5.00 and 5.21)

ii. The owner or operator shall not allow aluminum emissions to exceed the emission standards listed in the following table.
(Regulation 5.21, section 4.2 and section 4.3)

Stack ID	Emission Point	Description	(lb/hr)	(lb/8-hr)	Basis of Limit
S-9	E-11	Large Powder Storage Tank 1	1.00	1.34	De Minimis (lb/hr) Controlled PTE (lb/8-hr)
S-11	E-12	Large Powder Storage Tank 2	1.00	1.34	De Minimis (lb/hr) Controlled PTE (lb/8-hr)

(U-4 Comments 2 and 3)

S2. **Monitoring and Record Keeping** (Regulation 2.16, sections 4.1.9.1 and 4.1.9.2)

a. **Opacity**

i. The owner or operator shall conduct a monthly one-minute visible emissions survey on Emission Points E-11, E-12, E-13, and E-15 during normal operation. No more than four emission points shall be observed simultaneously. The opacity surveys can be performed on the building exhaust points if the process is inside an enclosure.

ii. At emission points where visible emissions are observed, the owner or operator shall initiate corrective action within eight hours of the initial observation. If the

visible emissions persist, the owner or operator shall perform or cause to be performed a Method 9, in accordance with 40 CFR Part 60, Appendix A, within 24 hours of the initial observation.

iii. The owner or operator shall maintain records, monthly, of the results of all visible emissions surveys and tests. Records of the results of any visible emissions survey shall include the date of the survey, the name of the person conducting the survey, whether or not visible emissions were observed, and what if any corrective action was performed. If an emission point is not being operated during a given month, then no visible emission survey needs to be performed and a negative declaration shall be entered in the record.

b. **PM**

i. The owner or operator shall keep daily records of all production rates. They shall, monthly, calculate the amount of hourly PM emitted, based on the hours of actual operation of the processes during each day and the approved control efficiency, as listed in Appendix C, of any filtration devices used, to control emissions below the standard.

ii. The owner or operator shall monthly calculate and record the previous 12 consecutive month PM emissions in order to demonstrate the status of compliance with the tons per 12 consecutive month period limits in U-4 Specific Conditions S1.b. (U-4 Comment 1)

iii. The owner or operator shall use the emission factors in Appendix A unless alternative calculation methods or factors are approved by the District to demonstrate compliance with the hourly and annual emission limits in U-4 Specific Conditions S1.b.i., S1.b.ii., and S1.b.iii.

iv. For Control Devices C-E-11, C-E-12, C-F-008, and C-F-009: The owner or operator shall monthly perform a visual inspection of the structural and mechanical integrity of the dust collectors for signs of damage, air leakage, corrosion, or other equipment defects, and repair and/or replace defective components as needed. The owner or operator shall maintain monthly records of the results.

v. The owner or operator shall monitor and record the pressure drop across the Metal Mesh Filters at least once per each operating day.

Control ID	Description	Performance Indicator	Operating Range
C-F-008	Metal Mesh Filter	Pressure drop	0.06 – 2 psi
C-F-009	Metal Mesh Filter	Pressure drop	0.06 – 2 psi

vi. If there is any time that the control device is bypassed or not in operation when the process is operating, then the owner or operator shall keep a record of the following for each bypass event:

1) Date;
2) Start time and stop time;
3) Identification of the control device and process equipment;
4) Calculate PM emissions during the bypass in lb/hr using the most recent emission factor;
5) Summary of the cause or reason for each bypass event;
6) Corrective action taken to minimize the extent or duration of the bypass event; and

7) Measures implemented to prevent reoccurrence of the situation that resulted in the bypass event.

c. **TAC**

i. The owner or operator shall maintain records sufficient to demonstrate environmental acceptability, including, but not limited to MSDS, analysis of emissions, and/or modeling results. The owner or operator shall maintain a copy onsite of the STAR Environmental Acceptability Demonstration including all air dispersion modeling input parameters and the associated Hazard Quotient (HQ), in units of risk in one million for each TAC. (U-4 Comments 2 and 3)

ii. The owner or operator shall monthly calculate and record TAC emissions for this unit in order to demonstrate compliance with the TAC emission standards required in U-4 Specific Condition S1.c.ii.

iii. The owner or operator shall re-evaluate the environmental acceptability and document the environmentally acceptable emissions if a new TAC is introduced or the content of a TAC in a raw material increases above *de minimis*, or any TAC emission exceeds the TAC emissions standards required in U-4 Specific Condition S1.c.ii.

S3. **Reporting** (Regulation 2.16, section 4.1.9.3)

The owner or operator shall include, at a minimum, the following information in the semi-annual compliance monitoring reports. If no deviations from permit requirements occur during a reporting period, the owner or operator shall submit a negative declaration stating that no permit deviations occurred during the reporting period.

a. **Opacity**

i. Any deviation from the requirement to perform monthly visible emission (VE) surveys;

ii. Any deviation from the requirement to record the results of each VE survey;

iii. The number, date, and time of each VE survey where visible emissions were observed;

iv. Identification of all periods of exceedance of the opacity standard; and

v. Description of any corrective action taken for each exceedance.

b. **PM**

i. For Emission Points:

1) Identification of all periods of exceedances of the lb/hr emission standard for each emission point including the quantity of excess emissions;
2) Identification of all periods of exceedances of the tons per 12 consecutive month period limits including the quantity of excess emissions; and
3) Description of any corrective action taken for each exceedance.

ii. For Control Devices:

1) Any deviation from the requirement to record the results of visual inspections of the control devices;
2) Any deviation from the requirement to record the results of the pressure drop readings;
3) Identification of all periods when the pressure drop was outside the operating range; and

4) Description of any corrective action taken for each exceedance.

c. **TAC**

i. The owner or operator shall report any conditions that were inconsistent with those conditions analyzed in the most recent Environmental Acceptability Demonstration or a negative declaration stating that operations were within the conditions analyzed. This includes, but is not limited to, control device upset conditions.

ii. For any conditions outside the analysis, the owner or operator shall re-analyze to determine whether these conditions comply with the STAR program. Changes to the air dispersion modeling program or meteorological data used in the most recent Environmental Acceptability Demonstration do not trigger the requirement to re-analyze. (Regulation 5.21 sections 4.22 – 4.24)

iii. The owner or operator shall identify all periods of exceeding a TAC emission standard during a reporting period. The report shall include the following:

1) Emission Unit ID number and emission point ID number;
2) Identification of all periods during which a deviation occurred;
3) A description, including the magnitude, of the deviation;
4) If known, the cause of the deviation;
5) A description of all corrective actions taken to abate the deviation; and
6) If no deviations occur during a quarterly reporting period, the report shall contain a negative declaration.

iv. The owner or operator shall submit the re-evaluated EA demonstration to the District within 6 months after a change of a raw material as described in U-4 Specific Condition S2.c.iii.

U-4 Comments

1. Construction permit, 84-09-C, effective March 31, 2009, contained pound per hour limits on the pieces of equipment. The potential emissions of the project to install all the equipment in this emission unit was 76.72 tons per year, which is greater than the PSD/Non-Attainment threshold for PM of 25 tons per year, therefore the permit contains a limit for equipment combined of less than 25 tons per year to avoid PSD/Non-Attainment.

2. Emission Points E-11, E-12, E-13, and E-15 have TAC emission standards since their EA Demonstration was based on controlled PTE.

3. Eckart America Corporation submitted a STAR Environmental Acceptability Demonstration to the District on **March 31, 2009, July 27, 2012, February 6, 2014, and May 16, 2014**. Per the most recent EA demonstration, the AERMOD 8-hour MAC for aluminum was 55.04022 $\mu g/m^3$. Using APCD's equation 4 (Regulation 5.21, section 2.2), the resulting HQ is 1.10. The MAC is located on industrial property. The industrial HQ is below the EA_{nc} of 3.0. An AERMOD run was also completed with just the non-industrial receptor points. The residential 8-hour MAC for aluminum was 37.00945 $\mu g/m^3$. The residential HQ is 0.74, which is below the EA_{nc} of 1.0. Eckart is in compliance with the STAR EAGs.

Emission Unit U-6: Classifiers

Aluminum powder is transferred in a dense phase form to storage tanks. After classification, the product is transferred to holding tanks and then either loaded into drums or conveyed to other processes.

U-6 Applicable Regulations

FEDERALLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
2.05	Prevention of Significant Deterioration of Air Quality	1
7.08	Standards of Performance for New Process Operations	1, 2, 3.1.1, 3.3.1

DISTRICT ONLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
5.00	Definitions (STAR)	1, 2
5.01	General Provisions (STAR)	1 through 2
5.20	Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant (STAR)	1 through 6
5.21	Environmental Acceptability for Toxic Air Contaminants (STAR)	1 through 5
5.22	Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant (STAR)	1 through 5
5.23	Categories of Toxic Air Contaminants (STAR)	1 through 6

U-6 Equipment

Emission Point	Description	Applicable Regulation	Control ID	Stack ID
E-25	15,000 lb Tank (Make: Kirk & Bloom; Model: Custom; Capacity: 2,500 lb/hr; Installed: 1988)	2.05 STAR 7.08	C-E-25; C-F-010	S-17
E-26a	Classifier 1 Weigh Tank (Make: Roark Enterprise; Model: Custom; Capacity: 2,500 lb/hr; Installed: 1988) (Insignificant Activity – de minimis for STAR)		N/A	S-85
E-26b	Fines Bin (Make: Roark Enterprise; Model: Custom; Capacity: 2,500 lb/hr; Installed: 1988)) (Insignificant Activity – de minimis for STAR)		C-E-25; C-F-010	S-17
E-26c	Buhler C Conveyor Pod (Make: Roark Enterprise; Model: Custom; Capacity: 2,500 lb/hr; Installed: 1988) (Insignificant Activity – de minimis for STAR)		C-E-25; C-F-010	S-17
E-26d	Drum Loading (Make: Roark Enterprise; Model: Custom; Capacity: 2,500 lb/hr; Installed: 1988)) (Insignificant Activity – de minimis for STAR)		C-E-25; F-010	S-17
E-128	30,000 lb Tank (Make: Roark Enterprise; Model: Custom; Capacity: 3,500 lb/hr; Installed: 1999)		C-E-128 C-F-011	S-51
E-128b1	Buhler B Conveyor Pod Coarse Tank, Fines Tank & Buhler B (Make: Roark Enterprise; Model: Custom; Capacity: 3500 lb/hr; Installed: 1999) (Insignificant Activity – de minimis for STAR)		C-E-128 C-F-011	S-51
E-128b2	Classifier 2Weigh Tank (Make: Roark Enterprise; Model: Custom; Capacity: 3500 lb/hr; Installed: 1999) (Insignificant Activity – de minimis for STAR)		N/A	S-81

U-6 Control Devices

Control ID	Description	Stack ID
C-E-25	Classifier 1 Cyclone (Make: Kirk & Blum; Model: Custom; Installed: 1988)	S-17
C-E-128	Classifier 2 Cyclone (Make: Buhler Inc.; Model MGXP-40W/Aeration; Installed: 1999)	S-51
C-F-010	Classifier 1 Metal Mesh Filter	S-17
C-F-011	Classifier 2 Metal Mesh Filter	S-51

U-6 Specific Conditions

S1. **Standards** (Regulation 2.16, section 4.1.1)

a. **Opacity**

The owner or operator shall not cause or permit the discharge of emissions equal to or in excess of 20% opacity. (Regulation 7.08, section 3.1.1)

b. **PM**

i. For Emission Points E-25, E-26a, E-26b, E-26c, and E-26d combined, the owner or operator shall not allow PM emissions to exceed 25 tons per 12 consecutive month period. (Regulation 2.05)

ii. For Emission Points E-128, E-128b1, and E-128b2 combined, the owner or operator shall not allow PM emissions to exceed 25 tons per 12 consecutive month period. (Regulation 2.05)

iii. For Emission Point E-25, the owner or operator shall not allow PM emissions to exceed 4.12 lb/hr. (Permit 84-09-C, Effective 3/31/2009)

iv. For Emission Point E-26a, the owner or operating shall not allow PM emissions to exceed 3.305 lb/hr. (Permit 36408-12-C, Effective 1/4/2013)

v. For Emission Points E-26b, E-26c, and E-26d, the owner or operator shall not allow PM emissions to exceed 4.12 lb/hr from each emission point.
(Regulation 7.08, section 3.1.2)

vi. For Emission Points E-128, E-128b1, and E-128b2, the owner or operator shall not allow PM emissions to exceed 5.08 lb/hr from each emission point.
(Regulation 7.08, section 3.1.2)

vii. The owner or operator shall utilize controls at all times Emission Points E-25 and E-128 are in operation and shall, to the extent practicable, maintain and operate any affected facility included associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. (Regulation 2.16, section 4.1.1)

c. **TAC**

i. The owner or operator shall not allow emissions of any TAC to exceed environmentally acceptable (EA) levels, whether specifically established by modeling or determined by the District to be de minimis.
(Regulations 5.00 and 5.21)

ii. The owner or operator shall not allow aluminum emissions to exceed the emission standards listed in the following table.
(Regulation 5.21, section 4.2 and section 4.3)

Stack ID	Emission Point	Description	(lb/hr)	(lb/8-hr)	Basis of Limit
S-17	E-25	15,000 lb Tank	1.00	1.20	De Minimis (lb/hr) Controlled PTE (lb/8-hr)
S-51	E-128	30,000 lb Tank	1.00	1.74	De Minimis (lb/hr) Controlled PTE (lb/8-hr)

(U-6 Comments 2 and 3)

S2. **Monitoring and Record Keeping** (Regulation 2.16, sections 4.1.9.1 and 4.1.9.2)

a. **Opacity**

i. For Emission Points E-25 and E-128:

1) The owner or operator shall conduct a monthly one-minute visible emissions survey on the emission points, during normal operation. No more than four emission points shall be observed simultaneously. The opacity surveys can be performed on the building exhaust points if the process is inside an enclosure.

2) At emission points where visible emissions are observed, the owner or operator shall initiate corrective action within eight hours of the initial observation. If the visible emissions persist, the owner or operator shall perform or cause to be performed a Method 9, in accordance with 40 CFR Part 60, Appendix A, within 24 hours of the initial observation.

3) The owner or operator shall maintain records, monthly, of the results of all visible emissions surveys and tests. Records of the results of any visible emissions survey shall include the date of the survey, the name of the person conducting the survey, whether or not visible emissions were observed, and what if any corrective action was performed. If an emission point is not being operated during a given month, then no visible emission survey needs to be performed and a negative declaration shall be entered in the record.

ii. For Emission Points E-26a, E-26b, E-26c, E-26d, E-128b1, and E-128b2: There are no opacity monitoring or record keeping requirements. (U-6 Comment 1)

b. **PM**

i. For Emission Points E-25 and E-128: The owner or operator shall keep daily records of all production rates. They shall then calculate the amount of hourly PM emitted, based on the hours of actual operation of the processes during each day and the design collection efficiency of any filtration devices used, to control emissions below the standard.

ii. The owner or operator shall monthly calculate and record the previous 12 consecutive month PM emissions in order to demonstrate the status of compliance with the tons per 12 consecutive month period limits in U-6 Specific Conditions S1.b.

iii. The owner or operator shall use the emission factors in Appendix A unless alternative calculation methods or factors are approved by the District to demonstrate compliance with the hourly and annual emission limits in U-6 Specific Conditions S1.b.i., S1.b.ii, S1.b.iii., S1.b.iv., S1.b.v., and S1.b.vi. (U-6 Comment 1)

iv. For the control devices, the owner or operator shall monthly perform a visual inspection of the structural and mechanical integrity of the dust collectors for signs of damage, air leakage, corrosion, or other equipment defects, and repair and/or replace defective components as needed. The owner or operator shall maintain monthly records of the results.

v. The owner or operator shall monitor and record the pressure drop across the Metal Mesh Filters at least once per each operating day.

Control ID	Description	Performance Indicator	Operating Range
C-F-010	Classifier 1 Metal Mesh Filter	Pressure drop	0.008 – 2 psi
C-F-011	Classifier 2 Metal Mesh Filter	Pressure drop	0.01 – 2 psi

vi. If there is any time that the control device is bypassed or not in operation when the process is operating, then the owner or operator shall keep a record of the following for each bypass event:

1) Date;
2) Start time and stop time;
3) Identification of the control device and process equipment;
4) Calculate PM emissions during the bypass in lb/hr using the most recent emission factor;
5) Summary of the cause or reason for each bypass event;
6) Corrective action taken to minimize the extent or duration of the bypass event; and
7) Measures implemented to prevent reoccurrence of the situation that resulted in the bypass event.

c. **TAC**

i. The owner or operator shall maintain records sufficient to demonstrate environmental acceptability, including, but not limited to MSDS, analysis of emissions, and/or modeling results. The owner or operator shall maintain a copy onsite of the STAR Environmental Acceptability Demonstration including all air dispersion modeling input parameters and the associated Hazard Quotient (HQ), in units of risk in one million for each TAC. (U-6 Comment 3)

ii. The owner or operator shall monthly calculate and record TAC emissions for Emission Points E-25 and E-128 in order to demonstrate compliance with the TAC emission standards required in U-6 Specific Condition S1.c.ii.

iii. The owner or operator shall re-evaluate the environmental acceptability and document the environmentally acceptable emissions if a new TAC is introduced or the content of a TAC in a raw material increases above *de minimis*, or any TAC emission exceeds the TAC emissions standards required in U-6 Specific Condition S1.c.ii.

S3. **Reporting** (Regulation 2.16, section 4.1.9.3)

The owner or operator shall include, at a minimum, the following information in the semi-annual compliance monitoring reports. If no deviations from permit requirements occur during a reporting period, the owner or operator shall submit a negative declaration stating that no permit deviations occurred during the reporting period.

a. **Opacity**

i. For Emission Points E-25 and E-128:

1) Any deviation from the requirement to perform monthly visible emission (VE) surveys;
2) Any deviation from the requirement to record the results of each VE survey;
3) The number, date, and time of each VE survey where visible emissions were observed;
4) Identification of all periods of exceedance of the opacity standard; and

5) Description of any corrective action taken for each exceedance.

ii. For Emission Points E-26a, E-26b, E-26c, E-26d, E-128a, and E-128b: There are no opacity compliance reporting requirements. (U-6 Comment 1)

b. **PM**

i. For Emission Points E-25 and E-128:

1) Identification of all periods of exceedances of the lb/hr emission standard for each emission point including the quantity of excess emissions; and
2) Description of any corrective action taken for each exceedance.

ii. For Emission Points E-25, E-26a, E-26b, E-26c, and E-26d combined, identification of all periods of exceedances of the tons per 12 consecutive month period limit including the quantity of excess emissions.

iii. For Emission Points E-128, E-128b1, and E-128b2 combined, identification of all periods of exceedances of the tons per 12 consecutive month period limit including the quantity of excess emissions

iv. For Emission Points E-26a, E-26b, E-26c, E-26d, E-128a, and E-128b1, there are no PM compliance reporting requirements for this equipment to demonstrate compliance with the lb/hr emission standard. (U-6 Comment 1)

v. For Control Devices:

1) Any deviation from the requirement to record the results of visual inspections of the control devices;
2) Any deviation from the requirement to record the results of the pressure drop readings;
3) Identification of all periods when the pressure drop was outside the operating range; and
4) Description of any corrective action taken for each exceedance.

c. **TAC**

i. The owner or operator shall report any conditions that were inconsistent with those conditions analyzed in the most recent Environmental Acceptability Demonstration or a negative declaration stating that operations were within the conditions analyzed. This includes, but is not limited to, control device upset conditions.

ii. For any conditions outside the analysis, the owner or operator shall re-analyze to determine whether these conditions comply with the STAR program. Changes to the air dispersion modeling program or meteorological data used in the most recent Environmental Acceptability Demonstration do not trigger the requirement to re-analyze. (Regulation 5.21 sections 4.22 – 4.24)

iii. For Emission Points E-25 and E-128: The owner or operator shall identify all periods of exceeding a TAC emission standard during a reporting period. The report shall include the following:

1) Emission Unit ID number and emission point ID number;
2) Identification of all periods during which a deviation occurred;
3) A description, including the magnitude, of the deviation;
4) If known, the cause of the deviation;
5) A description of all corrective actions taken to abate the deviation; and
6) If no deviations occur during a quarterly reporting period, the report shall contain a negative declaration.

iv. The owner or operator shall submit the re-evaluated EA demonstration to the District within 6 months after a change of a raw material as described in U-6 Specific Condition S2.c.iii.

U-6 Comments

1. Using an AP-42 emission factor (Chapter 11.24 for 'Metallic Mineral Processing; Material Handling and Transfer – low moisture ore'), E-26a, E-26b, E-26c, E-26d, E-128b1, and E-128b2 cannot exceed the PM lb/hr emission standards uncontrolled, therefore there are no monitoring, record keeping, reporting, or testing requirements. The District has determined that since these emission points are Insignificant Activities there should not be any opacity exceedances, therefore, there are no monitoring, record keeping, reporting, or testing requirements.

2. Emission Points E-26a, E-26b, E-26c, E-26d, E-128b1, and E-128b2 are Insignificant Activities and by definition de minimis for STAR. Emission Points E-25 and E-128 have TAC emission standards since their EA Demonstration was based on controlled PTE.

3. Eckart America Corporation submitted a STAR Environmental Acceptability Demonstration to the District on **March 31, 2009, July 27, 2012, February 6, 2014, and May 16, 2014**. Per the most recent EA demonstration, the AERMOD 8-hour MAC for aluminum was 55.04022 $\mu g/m^3$. Using APCD's equation 4 (Regulation 5.21, section 2.2), the resulting HQ is 1.10. The MAC is located on industrial property. The industrial HQ is below the EA_{nc} of 3.0. An AERMOD run was also completed with just the non-industrial receptor points. The residential 8-hour MAC for aluminum was 37.00945 $\mu g/m^3$. The residential HQ is 0.74, which is below the EA_{nc} of 1.0. Eckart is in compliance with the STAR EAGs.

4. The potential emissions of the project to install all the Emission Points E-25, E-26a, E-26b, E-26c, and E-26d was 28.73 tons per year, which is greater than the PSD/Non-Attainment threshold for PM of 25 tons per year, therefore the permit contains a limit for equipment combined of less than 25 tons per year to avoid PSD/Non-Attainment.

5. The potential emissions of the project to install all the Emission Points E-128, E-128b1, and E-128b2 was 50.57 tons per year, which is greater than the PSD/Non-Attainment threshold for PM of 25 tons per year, therefore the permit contains a limit for equipment combined of less than 25 tons per year to avoid PSD/Non-Attainment.

Emission Unit U-7: Blending/Repack

Different atomized aluminum powders are blended together in the Gemco Tumbler Blender and Double/Single Drum Tumbler to meet customer specifications. A Repack Operation is used to transfer material from 55-gallon drums into 5-gallon containers.

U-7 Applicable Regulations

FEDERALLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
7.08	Standards of Performance for New Process Operations	1, 2, 3.1, 3.2 and 3.3

DISTRICT ONLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
5.00	Definitions (STAR)	1, 2
5.01	General Provisions (STAR)	1 through 2
5.20	Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant (STAR)	1 through 6
5.21	Environmental Acceptability for Toxic Air Contaminants (STAR)	1 through 5
5.22	Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant (STAR)	1 through 5
5.23	Categories of Toxic Air Contaminants (STAR)	1 through 6

U-7 Equipment

Emission Point	Description	Applicable Regulation	Control ID	Stack ID
E-27	Gemco Tumble Blender (Make: Gemco; Model B-88411; Capacity: 1,500 lb/hr ; Installed: 1988)	STAR 7.08	NA	Fugitive
E-143	Double Drum Tumbler (Make: Custom; Model: Custom; Capacity: 375 lb/hr (110 gallon); Installed: 1988)			
E-147	Drum Dumper (Make: Tubar; Model: Custom; Capacity: 375 lb/hr (55-gallon); Installed: 1988)			
E-148	Riddler Screen (Make: Tubar; Model: Custom; Capacity: 375 lb/hr (55 gallon); Installed: 1988)			
E-230	Screw Conveyor (Make: Tubar; Model: Custom; Capacity: 375 lb/hr (55 gallon); Installed: 2009)			
E-145	Hopper (Make: Tubar; Model: Custom; Capacity: 375 lb/hr (55 gallon); Installed: 1988)			
E-146	Bucket Fill (Make: Tubar; Model: Custom; Capacity: 375 lb/hr (55 gallon); Installed: 1988)			

U-7 Control Devices

There are no control devices associated with this unit.

U-7 Specific Conditions

S1. **Standards** (Regulation 2.16, section 4.1.1)

a. **Opacity**

The owner or operator shall not cause or permit the discharge of emissions equal to or in excess of 20% opacity. (Regulation 7.08, section 3.1.1)

b. **PM**

i. For Emission Point E-27, the owner or operator shall not allow PM emissions to exceed 3.00 lb/hr. (Regulation 7.08, section 3.1.2)

ii. For Emission Points E-143, E-147, E-148, E-230, E-145, and E-146, the owner or operator shall not allow PM emissions to exceed 2.34 lb/hr from each emission point. (Regulation 7.08, section 3.1.2)

c. **TAC**

See U-7 Comment 1.

S2. **Monitoring and Record Keeping** (Regulation 2.16, sections 4.1.9.1 and 4.1.9.2)

a. **Opacity**

There are no monitoring or record keeping requirements for Opacity compliance for this equipment. (U-7 Comment 1)

b. **PM**

There are no monitoring or record keeping requirements for PM compliance for this equipment. (U-7 Comment 3)

c. **TAC**

See U-7 Comment 1.

S3. **Reporting** (Regulation 2.16, section 4.1.9.3)

The owner or operator shall include, at a minimum, the following information in the semi-annual compliance monitoring reports. If no deviations from permit requirements occur during a reporting period, the owner or operator shall submit a negative declaration stating that no permit deviations occurred during the reporting period.

a. **Opacity**

There are no compliance reporting requirements for this equipment. (U-7 Comment 1)

b. **PM**

There are no compliance reporting requirements for this equipment. (U-7 Comment 3)

c. **TAC**

See U-7 Comment 1.

U-7 Comments

1. All the equipment in this emission unit are Insignificant Activities, therefore by definition are de minimis for STAR.
2. The District has determined that since these emission points are Insignificant Activities there should not be any opacity exceedances, therefore, there are no monitoring, record keeping, reporting, or testing requirements.
3. Using an AP-42 emission factor (Chapter 11.24 for 'Metallic Mineral Processing; Material Handling and Transfer – low moisture ore'), Emission Points E-27, E-143, E-147, E-148, E-230, E-145, and E-146 cannot exceed the PM emission standards uncontrolled, therefore there are no monitoring, record keeping, reporting, or testing requirements.

Emission Unit U-8: Rescreens

Aluminum flake and/or powder is transferred into a feed hopper, passed through the rescreens and separated into product and tails.

U-8 Applicable Regulations

FEDERALLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
7.08	Standards of Performance for New Process Operations	1, 2, 3.1, 3.2 and 3.3

DISTRICT ONLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
5.00	Definitions (STAR)	1, 2
5.01	General Provisions (STAR)	1 through 2
5.20	Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant (STAR)	1 through 6
5.21	Environmental Acceptability for Toxic Air Contaminants (STAR)	1 through 5
5.22	Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant (STAR)	1 through 5
5.23	Categories of Toxic Air Contaminants (STAR)	1 through 6

U-8 Equipment

Emission Point	Description	Applicable Regulation	Control ID	Stack ID
E-150	Flake 100 Drum/Tote Unloading (Make: Fischer AG; Model: Custom; Capacity: 700 Liters; Installed: 2004)	STAR 7.08	C-E-153	S-63
E-152	Flake 100 Staging Vessel (Make: BMI Industrial Systems; Model: Custom; Capacity: 500 Liters; Installed: 2004)			
E-154	Flake 100 Rescreener (Make: Russell Finex; Model: Europa 1200; Capacity: 250 lb/hr; Installed: 2004)		C-E-155	S-64
E-156	Flake 100 Drum Loading (Make: Varies; Model: 55-gallon drum; Capacity: 250 lb/hr; Installed: 2004)		C-E-157	S-64
E-158	Powder 200 Drum/Tote Unloading (Make: Fischer AG; Model: Custom; Capacity: 700 Liters; Installed: 2004)		C-E-161	S-66
E-160	Powder 200 Staging Vessel (Make: BMI Industrial Systems; Model: Custom; Capacity: 500 Liters; Installed: 2004)			
E-162	Powder 200 Rescreener (Make: Russell Finex; Model: Europa 1200; Capacity: 250 lb/hr; Installed: 2004)		C-E-163	S-67
E-164	Powder 200 Drum Loading (Make: Varies; Model: 55-gallon drum; Capacity: 250 lb/hr; Installed: 2004)		C-E-165	S-67

U-8 Control Devices

Control ID	Description	Stack ID
C-E-153	Flake Rescreen Metal Mesh Filter (Make: BMI Industrial Systems; Model: Custom; Capacity: 1 cfm; Installed: 2004)	S-63
C-E-155	Flake Rescreen Metal Mesh Filter (Make: BMI Industrial Systems; Model: Custom; Capacity: 1 cfm; Installed: 2004)	S-64
C-E-157	Flake Rescreen Metal Mesh Filter (Make: BMI Industrial Systems; Model: Custom; Capacity: 1 cfm; Installed: 2004)	S-64
C-E-161	Powder Rescreen Metal Mesh Filter (Make: BMI Industrial Systems; Model: Custom; Capacity: 1 cfm; Installed: 2004)	S-66
C-E-163	Powder Rescreen Metal Mesh Filter (Make: BMI Industrial Systems; Model: Custom; Capacity: 1 cfm; Installed: 2004)	S-67
C-E-165	Powder Rescreen Metal Mesh Filter (Make: BMI Industrial Systems; Model: Custom; Capacity: 1 cfm; Installed: 2004)	S-67

U-8 Specific Conditions

S1. **Standards** (Regulation 2.16, section 4.1.1)

a. **Opacity** (Regulation 7.08, section 3.1.1)

The owner or operator shall not cause or permit the discharge of emissions equal to or in excess of 20% opacity.

b. **PM** (Regulation 7.08, section 3.1.2)

For Emission Points E-150, E-152, E-154, E-156, E-158, E-160, E-162, and E-164, the owner or operator shall not allow PM emissions to exceed 2.34 lb/hr from each emission point. (Regulation 7.08, section 3.1.2)

c. **TAC**

See U-8 Comment 1.

S2. **Monitoring and Record Keeping** (Regulation 2.16, sections 4.1.9.1 and 4.1.9.2)

a. **Opacity**

There are no monitoring or record keeping requirements for opacity compliance for this equipment. (U-8 Comment 1)

b. **PM**

There are no monitoring or record keeping requirements for PM compliance for this equipment. (U-8 Comment 3)

c. **TAC**

See U-8 Comment 1.

S3. **Reporting** (Regulation 2.16, section 4.1.9.3)

The owner or operator shall include, at a minimum, the following information in the semi-annual compliance monitoring reports. If no deviations from permit requirements occur during a reporting period, the owner or operator shall submit a negative declaration stating that no permit deviations occurred during the reporting period.

a. **Opacity**

There are no compliance reporting requirements for this equipment. (U-8 Comment 1)

b. **PM**

There are no compliance reporting requirements for this equipment. (U-8 Comment 3)

c. **TAC**

See U-8 Comment 1.

U-8 Comments

1. All the equipment in this emission unit are Insignificant Activities, therefore by definition are de minimis for STAR.
2. The District has determined that since these emission points are Insignificant Activities there should not be any opacity exceedances, therefore, there are no monitoring, record keeping, reporting, or testing requirements.
3. Using hourly potential emissions obtained from the August 2006 Stack Test of E-152, Emission Points E-150, E-152, E-154, E-156, E-158, E-160, E-162, and E-164 cannot exceed the PM emission standards uncontrolled, therefore there are no monitoring, record keeping, reporting, or testing requirements.
4. The potential uncontrolled PM and PM_{10} emissions from this project are less than the significant level of 25 tons per year and 15 tons per year for PSD/Nonattainment NSR.

Emission Unit U-13: Aluminum Paste Process

Aluminum powder, mineral spirits and additional ingredients are mixed in ball mills to create an aluminum slurry. The slurry is held in storage tanks and processed through screens and filter presses to produce aluminum filter cake. Used mineral spirits and filter cake byproducts are recycled back in the process.

U-13 Applicable Regulations

FEDERALLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
2.05	Prevention of Significant Deterioration of Air Quality	1
6.09	Standards of Performance for Existing Process Operations	1, 2, 3.1, 3.4, 5
6.24	Standard of Performance for Existing Sources Using Organic Materials	1, 2, 3.3, 4, 5, 6, 7
7.08	Standards of Performance for New Process Operations	1, 2, 3.1.1, 3.3.1
7.25	Standards of Performance for New Sources Using Volatile Organic Compounds	1, 2, 3.2, 4, 5

DISTRICT ONLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
5.00	Definitions (STAR)	1, 2
5.01	General Provisions (STAR)	1 through 2
5.20	Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant (STAR)	1 through 6
5.21	Environmental Acceptability for Toxic Air Contaminants (STAR)	1 through 5
5.22	Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant (STAR)	1 through 5
5.23	Categories of Toxic Air Contaminants (STAR)	1 through 6

U-13 Equipment

Emission Point	Description	Applicable Regulation	Control ID	Stack ID
E-56	Ball Mill 5 (Make: Epworth; Model: NA; Capacity: 1,000 gallons; Installed: 1947)	STAR 6.09, 6.24	C-9	S-86
E-57	Ball Mill 6 (Make: Epworth; Model: NA; Capacity: 1,000 gallons; Installed: 1978)	STAR 6.24, 7.08	C-9	S-86
E-62a	Tank T-72 (Make: Kirk & Blum; Model: NA; Capacity: 1,300 gallons; Installed: 1964)	STAR 6.24	N/A	Fugitive
E-66a	Screen 29 (Make: Sweco; Model: 48S88; Capacity: 30 gpm; Installed: 1974)			
E-66b	Screen 30 (Make: Sweco; Model: 48S88; Capacity: 30 gpm; Installed: 1974)			
E-66c	Screen 31 (Make: Sweco; Model: 48S88; Capacity: 30 gpm; Installed: 1974)			
E-64a	Course Screen Pot (Make: Custom; Model: NA; Capacity: 50 gallons; Installed: 1974)			
E-64b	Fines Screen Pot (Make: Custom; Model: NA; Capacity: 50 gallons; Installed: 1974)			
E-65a	Coarse Screen Pot (Make: Custom; Model: NA; Capacity: 100 gallons; Installed: 1974)			
E-65b	Fines Screen Pot (Make: Custom; Model: NA; Capacity: 100 gallons; Installed: 1974)			
E-61a	Press Tank 4-S1 (Make: Kirk & Blum; Model: NA; Capacity: 1,000 gallons; Installed: 1994)	STAR 7.25	N/A	Fugitive
E-61b	Press Tank 4-S2 (Make: Kirk & Blum; Model: NA; Capacity: 1,000 gallons; Installed: 1994)			

Emission Point	Description	Applicable Regulation	Control ID	Stack ID
E-71	Filter Press 4S (Make: DR Sperry; Model: 36” P&E; Capacity: 3,000 lb; Installed: 1979)	STAR 7.25 (BACT)	N/A	Fugitive
E-231	Tank T-73 (Make: Kirk & Blum; Model: NA; Capacity: 3,000-gallons; Installed: 2002)	2.05 STAR 7.25 (BACT)	N/A	S-84

U-13 Control Devices

Control ID	Description	Stack ID
C-9	SVR System (Dual Stage Condenser with Liquid/Vapor Separator)	S-86

U-13 Specific Conditions

S1. **Standards** (Regulation 2.16, section 4.1.1)

a. **VOC**

i. For Emission Points E-56, E-57, E-61a, E-61b, E-62a, E-66a, E-66b, E-66c, E-64a, E-64b, E-65a, and E-65b, the owner or operator shall not allow VOC emissions of Class II solvents to exceed 40 pounds per day nor 8 pounds per hour from each emission point, unless the VOC emissions have been reduced by at least 85%. (Regulation 6.24, section 3.2)

ii. For Emission Points E-56, E-57, E-61a, E-61b, E-62a, E-66a, E-66b, E-66c, E-64a, E-64b, E-65a, and E-65b, the owner or operator shall not allow VOC emissions of Class III solvents to exceed 3000 pounds per day nor 450 pounds per hour, unless the VOC emissions have been reduced by at least 85%. (Regulation 6.24, section 3.3)

iii. The owner or operator shall not allow combined VOC emissions from the **Press Tanks (U-13: E-61a, E-61b)**; Dryer 2/3 Holding Tank (U-14: E-232); Mixer 7 (U-15: E-135); Sludge Accumulator Tank (U-17: E-100); Condensate Tanks (U-23: E-254, E-255); R&D Mixer (U-24, E-272); Filtrate Tanks (U-27: E-227, E-228) to equal or exceed 5 tons per 12 consecutive month period unless a BACT analysis is submitted to the District for review and approval in accordance with Regulation 7.25. (Regulation 7.25, section 3.1)
(Permit 36563-13-C, effective 4/26/2013)

iv. The owner or operator shall limit the VOC emissions from Emission Point, E-71 to 3.29 tons per 12 consecutive month period. (Regulation 7.25, section 3.2)
(Permit 36563-13-C, effective 4/26/2013)

v. The owner or operator shall not allow combined VOC emissions from **E-231 (U-13)**; E-129, E-130, E-131, E-132, E-134, E-136, E-137 (U-15); E-111, E-112, E-113, E-114, E-115, E-116 a-x, E-117 a-dd, E-118 a-j, E-178, E-119 a-g, E-120 a & b, E-121 a-c, E-270, E-179 a-h, E-180, and E-181 (U-22); E-123, E-125, E-126, and E-127, E-252, E-253 (U-23) to equal or exceed 40 tons per 12 consecutive month period in order to avoid PSD. The VOC limit is also considered BACT for Regulation 7.25.
(Regulation 7.25, section 3.1 and Regulation 2.05)
(Permit 36563-13-C, effective 4/26/2013)

b. **TAC**

See U-13 Comment 1.

c. **PM**

i. For Emission Point E-56, the owner or operator shall not allow PM emissions to exceed 2.58 lb/hr. (Regulation 6.09, section 3.2)

ii. For Emission Point E-57, the owner or operator shall not allow PM emissions to exceed 2.34 lb/hr. (Regulation 7.08, section 3.1.2)

d. **Opacity**

The owner or operator shall not cause or permit the discharge of emissions equal to or in excess of 20% opacity. (Regulations 6.09, section 3.1; 7.08, section 3.1.1)

S2. **Monitoring and Record Keeping** (Regulation 2.16, sections 4.1.9.1 and 4.1.9.2)

a. **VOC**

i. For Emission Points: **E-231 (U-13)**; E-129, E-130, E-131, E-132, E-134, E-136, E-137 (U-15); E-111, E-112, E-113, E-114, E-115, E-116 a-x, E-117 a-dd, E-118 a-j, E-178, E-119 a-g, E-120 a & b, E-121 a-c, E-270, E-179 a-h, E-180, and E-181 (U-22); E-123, E-125, E-126, and E-127, E-252, E-253 (U-23): The owner or operator shall monthly calculate and record the previous 12 consecutive month VOC emissions in order to demonstrate the status of compliance with all applicable Regulation 7.25 and PSD avoidance limits.

ii. The owner or operator shall use the emission factors in Appendix A unless alternative calculation methods or factors are approved by the District to demonstrate compliance with the hourly, daily or annual emission limits in U-13 Specific Conditions S1.a.i., S1.a.ii., S1.a.iv., and S1.a.v.

iii. See C-9 SVR System Specific Condition S2.a.i. for Monitoring and Record Keeping requirements.

iv. For Emission Points **Press Tanks (U-13: E-61a, E-61b)**; Dryer 2/3 Holding Tank (U-14: E-232); Mixer 7 (U-15: E-135); Sludge Accumulator Tank (U-17: E-100); Condensate Tanks (U-23: E-254, E-255); R&D Mixer (U-24, E-272); Filtrate Tanks (U-27: E-227, E-228), there are no compliance monitoring or record keeping requirements. (U-13 Comment 2)

b. **TAC**

See U-13 Comment 1.

c. **PM**

There are no compliance monitoring or record keeping requirements for Emission Points E-56 or E-57. (U-13 Comment 3)

d. **Opacity**

There are no compliance monitoring or record keeping requirements for Emission Points E-56 or E-57. (U-13 Comment 3)

S3. **Reporting** (Regulation 2.16, section 4.1.9.3)

The owner or operator shall include, at a minimum, the following information in the semi-annual compliance monitoring reports. If no deviations from permit requirements occur during a reporting period, the owner or operator shall submit a negative declaration stating that no permit deviations occurred during the reporting period.

a. **VOC**

i. For Emission points subject to Regulation 6.24, there are no reporting requirements. (U-13 Comment 4)

ii. For Emission Points: **E-231 (U-13)**; E-129, E-130, E-131, E-132, E-134, E-136, E-137 (U-15); E-111, E-112, E-113, E-114, E-115, E-116 a-x, E-117 a-dd, E-118 a-j, E-178, E-119 a-g, E-120 a & b, E-121 a-c, E-270, E-179 a-h, E-180, and E-181 (U-22); E-123, E-125, E-126, and E-127, E-252, E-253 (U-23):

1) Identification of all periods of exceedance of the Regulation 7.25 limits and PSD avoidance limits including the quantity of excess emissions; and
2) Description of any corrective actions taken for each exceedance.

iii. For Emission Points **Press Tanks (U-13: E-61a, E-61b)**; Dryer 2/3 Holding Tank (U-14: E-232); Mixer 7 (U-15: E-135); Sludge Accumulator Tank (U-17: E-100); Condensate Tanks (U-23: E-254, E-255); R&D Mixer (U-24, E-272); Filtrate Tanks (U-27: E-227, E-228), there are no compliance reporting requirements. (U-13 Comment 2)

b. **TAC**

See U-13 Comment 1.

c. **PM**

There are no compliance reporting requirements for Emission Points E-56 or E-57. (U-13 Comment 3)

d. **Opacity**

There are no compliance reporting requirements for Emission Points E-56 or E-57. (U-13 Comment 3)

U-13 Comments

1. All the equipment in this emission unit are Insignificant Activities, therefore by definition are de minimis for STAR.

2. For Emission Points **Press Tanks (U-13: E-61a, E-61b**); Dryer 2/3 Holding Tank (U-14: E-232); Mixer 7 (U-15: E-135); Sludge Accumulator Tank (U-17: E-100); Condensate Tanks (U-23: E-254, E-255); R&D Mixer (U-24, E-272); Filtrate Tanks (U-27: E-227, E-228), the potential VOC emissions are less than 2 tons per year, therefore there are no monitoring, record keeping, or reporting requirements.

3. Using an AP-42 emission factor (Chapter 11.24, Metallic Mineral Processing: Material Handling and Transfer – low moisture ore) Emission Points E-56 and E-57,cannot exceed the emission standards uncontrolled, therefore there are no monitoring, record keeping, reporting, or testing requirements. The District has determined that since these emission points are Insignificant Activities there should not be any opacity exceedances, therefore, there are no monitoring, record keeping, reporting, or testing requirements.

4. Using hourly potential emissions obtained from the July 2013 Stack Test of Ball Mill #5, TANKS 4.09d, and EIIP Chapter 8 Surface Evaporation Modeling, Emission Points E-56, E-57, E-61a, E-61b, E-62a, E-66a, E-66b, E-66c, E-64a, E-64b, E-65a, and E-65b cannot exceed the VOC emission standards for Class II and Class III solvents, therefore there are no monitoring, record keeping, reporting, or testing requirements.

5. Using EIIP Chapter 8 surface evaporation, gas sweep and material loading, Emission Point E-71 cannot exceed the VOC emission standard of 3.29 tons per 12 consecutive month period, therefore there are no monitoring, record keeping, reporting, or testing requirements. The original PTE with the construction of E-68, E-71, E-74, and E-77 (all removed except E-71) was greater than the original VOC limit of 15 tons per year. Since E-71 is the only piece of equipment left that was permitted as a combined VOC limit the District has revised the limit to be the PTE of E-71 and since this is a more stringent limit than the original limit revision to a construction permit is not required.

6. The less than 40 tons per 12 consecutive month limit is to avoid PSD/Nonattainment NSR for emission points **E-231 (U-13)**; E-129, E-130, E-131, E-132, E-134, E-136, E-137 (U-15); E-111, E-112, E-113, E-114, E-115, E-116 a-x, E-117 a-dd, E-118 a-j, E-178, E-119 a-g, E-120 a & b, E-121 a-c, E-270, E-179 a-h, E-180, and E-181 (U-22); E-123, E-125, E-126, and E-127, E-252, E-253 (U-23) combined.

7. A tabulation of the various VOC emission limits is in Appendix B of this permit.

Emission Unit U-14: Aluminum Paste Dryers

Aluminum filter cake is fed into dryers where the liquid content is driven off in order to meet customer specifications.

U-14 Applicable Regulations

FEDERALLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
6.24	Standard of Performance for Existing Sources Using Organic Materials	1, 2, 3.3, 4, 5, 6, 7
7.25	Standards of Performance for New Sources Using Volatile Organic Compounds	1, 2, 3.2, 4, 5

DISTRICT ONLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
5.00	Definitions (STAR)	1, 2
5.01	General Provisions (STAR)	1 through 2
5.20	Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant (STAR)	1 through 6
5.21	Environmental Acceptability for Toxic Air Contaminants (STAR)	1 through 5
5.22	Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant (STAR)	1 through 5
5.23	Categories of Toxic Air Contaminants (STAR)	1 through 6

U-14 Equipment

Emission Point	Description	Applicable Regulation	Control ID	Stack ID
E-82	Vacuum Dryer #2 (Make: Device; Model: D-11132; Capacity: 1,500 lb; Installed: 1978)	STAR 6.24	C-E-83	S-40
E-84	Vacuum Dryer #3 (Make: Device; Model: D-11319 Capacity: 1,500 lb; Installed: 1978)		C-E-85	S-41
E-232	Dryer 2/3 Holding Tank (Make: Kirk & Blum; Model: Custom; Capacity: 65 gallons; Installed: 2009) (Insignificant Activity)	STAR 7.25	N/A	S-85

U-14 Control Devices

Control ID	Description	Stack ID
C-E-83	Condenser/Vacuum Pump No. 2; (Make: Nash; Model: AT 124;Capacity: 100 cfm; Installed: 1978)	S-40
C-E-85	Condenser/Vacuum Pump No. 3; (Make: Nash; Model: AT 124;Capacity: 100 cfm; Installed: 1978)	S-41

U-14 Specific Conditions

S1. **Standards** (Regulation 2.16, section 4.1.1)

a. **VOC**

i. For Emission Points E-82 and E-84 the owner or operator shall not allow VOC emissions of Class II solvents to exceed 40 pounds per day nor 8 pounds per hour, unless the VOC emissions have been reduced by at least 85%. (Regulation 6.24, section 3.2)

ii. For Emission Points E-82 and E-84, the owner or operator shall not allow VOC emissions of Class III solvents to exceed 3000 pounds per day nor 450 pounds per hour, unless the VOC emissions have been reduced by at least 85%. (Regulation 6.24, section 3.3)

iii. The owner or operator shall not allow combined VOC emissions from the Press Tanks (U-13: E-61a, E-61b); **Dryer 2/3 Holding Tank (U-14: E-232)**; Mixer 7 (U-15: E-135); Sludge Accumulator Tank (U-17: E-100); Condensate Tanks (U-23: E-254, E-255); R&D Mixer (U-24, E-272); Filtrate Tanks (U-27: E-227, E-228) to equal or exceed 5 tons per 12 consecutive month period unless a BACT analysis is submitted to the District for review and approval in accordance with Regulation 7.25. (Regulation 7.25, section 3.1)
(Permit 36563-13-C, effective 4/26/2013)

b. **TAC**

See U-14 Comment 1.

S2. **Monitoring and Record Keeping** (Regulation 2.16, sections 4.1.9.1 and 4.1.9.2)

a. **VOC**

i. The owner or operator shall use the emission factors in Appendix A unless alternative calculation methods or factors are approved by the District to demonstrate compliance with the hourly, daily or annual emission limits in U-14 Specific Conditions S1.a.i., S1.a.ii., and S1.a.iii. (U-14 Comment 2)

ii. For Emission Points E-82 and E-84, if there is any time that the control device is bypassed or not in operation when the process is operating, then the owner or operator shall keep a record of the following for each bypass event:

1) Date;
2) Start time and stop time;
3) Identification of the control device and process equipment;
4) Summary of the cause or reason for each bypass event;
5) Corrective action taken to minimize the extent or duration of the bypass event;
6) VOC emissions in lb/day during the pass-event; and
7) Measures implemented to prevent reoccurrence of the situation that resulted in the bypass event.

iii. For Emission Points Press Tanks (U-13: E-61a, E-61b); **Dryer 2/3 Holding Tank (U-14: E-232)**; Mixer 7 (U-15: E-135); Sludge Accumulator Tank (U-17: E-100); Condensate Tanks (U-23: E-254, E-255); R&D Mixer (U-24, E-272); Filtrate Tanks (U-27: E-227, E-228), there are no compliance monitoring or record keeping requirements. (U-14 Comment 3)

b. **TAC**

See U-14 Comment 1.

S3. **Reporting** (Regulation 2.16, section 4.1.9.3)

The owner or operator shall include, at a minimum, the following information in the semi-annual compliance monitoring reports. If no deviations from permit requirements occur during a reporting period, the owner or operator shall submit a negative declaration stating that no permit deviations occurred during the reporting period.

a. **VOC**

i. For Emission points subject to Regulation 6.24: (U-14 Comment 2)

1) Identification of all periods of exceedance of the Regulation 6.24 lb/day limits for Class II solvents including the quantity of excess emissions; and

2) Description of any corrective actions taken for each exceedance.

ii. For Emission Points Press Tanks (U-13: E-61a, E-61b); **Dryer 2/3 Holding Tank (U-14: E-232)**; Mixer 7 (U-15: E-135); Sludge Accumulator Tank (U-17: E-100); Condensate Tanks (U-23: E-254, E-255); R&D Mixer (U-24, E-272); Filtrate Tanks (U-27: E-227, E-228), there are no compliance reporting requirements. (U-14 Comment 3)

b. **TAC**

See U-14 Comment 1.

U-14 Comments

1. Emission Point E-232 is an Insignificant Activities, therefore by definition is de minimis for STAR. Emission Points E-82 and E-84 are either de minimis by MSDS percentages or TRI exempt chemicals.

2. Using hourly controlled potential emissions obtained from the July 2013 Stack Test of Condenser/Vacuum Pump No. 2, Emission Points E-82 and E-84 cannot exceed the VOC emission standards for Class II and Class III solvents, therefore there are monitoring, record keeping, reporting, or testing requirements for control device by-pass events. Using hourly uncontrolled potential emissions obtained from the August 2006 Stack Test of Condenser/Vacuum Pump No.2, Emission Points E-82 and E-84 can exceed the VOC lb/day emission standards for Class II but not for Class III solvents. The uncontrolled lb/hr VOC emissions cannot exceed for either Class II or Class III solvents.

3. For Emission For Emission Points Press Tanks (U-13: E-61a, E-61b); **Dryer 2/3 Holding Tank (U-14: E-232)**; Mixer 7 (U-15: E-135); Sludge Accumulator Tank (U-17: E-100); Condensate Tanks (U-23: E-254, E-255); R&D Mixer (U-24, E-272); Filtrate Tanks (U-27: E-227, E-228), the potential VOC emissions are less than 2 tons per year, therefore there are no monitoring, record keeping, or reporting requirements.

4. A tabulation of the various VOC emission limits is in Appendix B of this permit.

Emission Unit U-15: Mixers

Aluminum filter cake is fed into mixers where various additives are mixed in to meet customer specifications to produce the aluminum paste product.

U-15 Applicable Regulations

FEDERALLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
2.05	Prevention of Significant Deterioration of Air Quality	1
6.24	Standard of Performance for Existing Sources Using Organic Materials	1, 2, 3.3, 4, 5, 6, 7
7.25	Standards of Performance for New Sources Using Volatile Organic Compounds	1, 2, 3.2, 4, 5

DISTRICT ONLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
5.00	Definitions (STAR)	1, 2
5.01	General Provisions (STAR)	1 through 2
5.20	Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant (STAR)	1 through 6
5.21	Environmental Acceptability for Toxic Air Contaminants (STAR)	1 through 5
5.22	Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant (STAR)	1 through 5
5.23	Categories of Toxic Air Contaminants (STAR)	1 through 6

U-15 Equipment

Emission Point	Description	Applicable Regulation	Control ID	Stack ID
E-129	Mixer 1 (Make: Brunati SNC 1033 Castelfranco/Italy; Model: Mes3001-3; Capacity: 7,000 lb; Installed: 2001)	2.05 STAR 7.25 (BACT)	C-9	S-86
E-130	Mixer 2 (Make: Brunati SNC 1033 Castelfranco/Italy; Model: Mes3001-3; Capacity: 7,000 lb; Installed: 2001)			
E-131	Mixer 3 (Make: Brunati SNC 1033 Castelfranco/Italy; Model: Mes3001-3; Capacity: 7,000 lb; Installed: 2001)			
E-132	Mixer 4 (Make: Brunati SNC 1033 Castelfranco/Italy; Model: Mes3001-3; Capacity: 7,000 lb; Installed: 2001)			
E-133	Mixer 5 (Make Readco; Model: 105211; Capacity: 2,000 lb; Installed: 1976)	STAR 6.24		
E-134	Mixer 6 (Make: Brunati SNC 1033 Castelfranco/Italy; Model: Mes3001-3; Capacity: 7,000 lb; Installed: 2001)	2.05 STAR 7.25 (BACT)		
E-135	Mixer 7 (Make: Brunati SNC 1033 Castelfranco/Italy; Model: Mes3001-3; Capacity: 7,000 lb; Installed: 2013)	STAR 7.25		
E-136	Mixer 8 (Make: Brunati SNC 1033 Castelfranco/Italy; Model: Mes3001-3; Capacity: 7,000 lb; Installed: 2001)	2.05 STAR 7.25 (BACT)		
E-137	Mixer 9 (Make: Brunati SNC 1033 Castelfranco/Italy; Model: Mes3001-3; Capacity: 7,000 lb; Installed: 2001)			

U-15 Control Devices

Control ID	Description	Stack ID
C-9	SVR System (Dual Stage Condenser with Liquid/Vapor Separator)	S-86

U-15 Specific Conditions

S1. **Standards** (Regulation 2.16, section 4.1.1)

a. **VOC**

i. For Emission Point E-133, the owner or operator shall not allow VOC emissions of Class II solvents to exceed 40 pounds per day nor 8 pounds per hour, unless the VOC emissions have been reduced by at least 85%.
(Regulation 6.24, section 3.2)

ii. For Emission Point E-133, the owner or operator shall not allow VOC emissions of Class III solvents to exceed 3000 pounds per day nor 450 pounds per hour, unless the VOC emissions have been reduced by at least 85%.
(Regulation 6.24, section 3.3)

iii. The owner or operator shall not allow combined VOC emissions from the Press Tanks (U-13: E-61a, E-61b); Dryer 2/3 Holding Tank (U-14: E-232); **Mixer 7 (U-15: E-135)**; Sludge Accumulator Tank (U-17: E-100); Condensate Tanks (U-23: E-254, E-255); R&D Mixer (U-24, E-272); Filtrate Tanks (U-27: E-227, E-228) to equal or exceed 5 tons per 12 consecutive month period unless a BACT analysis is submitted to the District for review and approval in accordance with Regulation 7.25. (Regulation 7.25, section 3.1)
(Permit 36563-13-C, effective 4/26/2013)

iv. The owner or operator shall not allow combined VOC emissions from E-231, E-232a (U-13); **E-129, E-130, E-131, E-132, E-134, E-136, E-137 (U-15**); E-111, E-112, E-113, E-114, E-115, E-116 a-x, E-117 a-dd, E-118 a-j, E-178, E-119 a-g, E-120 a & b, E-121 a-c, E-270, E-179 a-h, E-180, and E-181 (U-22); E-123, E-125, E-126, E-127, E-252, and E-253 (U-23) to equal or exceed 40 tons per 12 consecutive month period in order to avoid PSD. The VOC limit is also considered BACT for Regulation 7.25.
(Regulation 7.25, section 3.1 and Regulation 2.05)
(Permit 36563-13-C, effective 4/26/2013)

b. **TAC**

See U-15 Comment 1.

S2. **Monitoring and Record Keeping** (Regulation 2.16, sections 4.1.9.1 and 4.1.9.2)

a. **VOC**

i. For Emission points subject to Regulation 6.24, there are no compliance monitoring or record keeping requirements. (U-15 Comment 2)

ii. For Emission Points Press Tanks (U-13: E-61a, E-61b); Dryer 2/3 Holding Tank (U-14: E-232); **Mixer 7 (U-15: E-135)**; Sludge Accumulator Tank (U-17: E-100); Condensate Tanks (U-23: E-254, E-255); R&D Mixer (U-24, E-272); Filtrate Tanks (U-27: E-227, E-228), there are no compliance monitoring or record keeping requirements. (U-15 Comment 3)

iii. For Emission Points E-231, E-232a (U-13); **E-129, E-130, E-131, E-132, E-134, E-136, E-137 (U-15)**; E-111, E-112, E-113, E-114, E-115, E-116 a-x, E-117 a-dd, E-118 a-j, E-178, E-119 a-g, E-120 a & b, E-121 a-c, E-270, E-179 a-h, E-180, and E-181 (U-22); E-123, E-125, E-126, E-127, E-252, and E-253 (U-23), the owner or operator shall monthly calculate and record the previous 12 consecutive month VOC emissions in order to demonstrate the status of compliance with all applicable Regulation 7.25 and PSD avoidance limits.

iv. The owner or operator shall use the emission factors in Appendix A unless alternative calculation methods or factors are approved by the District to demonstrate compliance with the hourly, daily or annual emission limits in U-15 Specific Conditions S1.a.i., S1.a.ii., S1.a.iii., and S1.a.iv.

v. See C-9 SVR System Specific Condition S2.a.i. for Monitoring and Record Keeping requirements.

b. **TAC**

See U-15 Comment 1.

S3. **Reporting** (Regulation 2.16, section 4.1.9.3)

The owner or operator shall include, at a minimum, the following information in the semi-annual compliance monitoring reports. If no deviations from permit requirements occur during a reporting period, the owner or operator shall submit a negative declaration stating that no permit deviations occurred during the reporting period.

a. **VOC**

i. For Emission points subject to Regulation 6.24, there are no reporting requirements. (U-15 Comment 2)

ii. For Emission Points Press Tanks (U-13: E-61a, E-61b); Dryer 2/3 Holding Tank (U-14: E-232); **Mixer 7 (U-15: E-135)**; Sludge Accumulator Tank (U-17: E-100); Condensate Tanks (U-23: E-254, E-255); R&D Mixer (U-24, E-272); Filtrate Tanks (U-27: E-227, E-228), there are no compliance reporting requirements. (U-15 Comment 3)

iii. For Emission Points E-231, E-232a (U-13); **E-129, E-130, E-131, E-132, E-134, E-136, E-137 (U-15)**; E-111, E-112, E-113, E-114, E-115, E-116 a-x, E-117 a-dd, E-118 a-j, E-178, E-119 a-g, E-120 a & b, E-121 a-c, E-270, E-179 a-h, E-180, and E-181 (U-22); E-123, E-125, E-126, E-127, E-252, and E-253 (U-23):

1) Identification of all periods of exceedance of the Regulation 7.25 limits and PSD avoidance limits including the quantity of excess emissions; and
2) Description of any corrective actions taken for each exceedance.

b. **TAC**

See U-15 Comment 1.

U-15 Comments

1. All the equipment in this emission unit are Insignificant Activities, therefore by definition are de minimis for STAR.

2. Using hourly potential emissions obtained from the July 2013 Stack Test of Mixer 2, Emission Point E-133 cannot exceed the VOC emission standards for Class II and Class III solvents, therefore there are no monitoring, record keeping, reporting, or testing requirements.

3. For Emission Points For Emission Points Press Tanks (U-13: E-61a, E-61b); Dryer 2/3 Holding Tank (U-14: E-232); **Mixer 7 (U-15: E-135)**; Sludge Accumulator Tank (U-17: E-100); Condensate Tanks (U-23: E-254, E-255); R&D Mixer (U-24, E-272); Filtrate Tanks (U-27: E-227, E-228), the potential VOC emissions are less than 2 tons per year, therefore there are no monitoring, record keeping, or reporting requirements.

4. The less than 40 tons per 12 consecutive month limit is to avoid PSD/Nonattainment NSR for emission points E-231 (U-13); **E-129, E-130, E-131, E-132, E-134, E-136, E-137 (U-15**); E-111, E-112, E-113, E-114, E-115, E-116 a-x, E-117 a-dd, E-118 a-j, E-178, E-119 a-g, E-120 a & b, E-121 a-c, E-270, E-179 a-h, E-180, and E-181 (U-22); E-123, E-125, E-126, and E-127, E-252, E-253 (U-23) combined.

5. A tabulation of the various VOC emission limits is in Appendix B of this permit.

Emission Unit U-16: AST (Aboveground Storage Tank) Farm

Raw materials stored in ASTs for use within operations at the facility.

U-16 Applicable Regulations

FEDERALLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
7.12	Standards of Performance for New Storage Vessels for Volatile Organic Compounds	1, 2, 3.3, 4.1, 4.2, 7, 8

DISTRICT ONLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
5.00	Definitions (STAR)	1, 2
5.01	General Provisions (STAR)	1 through 2
5.20	Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant (STAR)	1 through 6
5.21	Environmental Acceptability for Toxic Air Contaminants (STAR)	1 through 5
5.22	Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant (STAR)	1 through 5
5.23	Categories of Toxic Air Contaminants (STAR)	1 through 6

U-16 Equipment

Emission Point	Description	Applicable Regulation	Control ID	Stack ID
E-89	AST 1 – Mineral Spirits from oleic acid processing (Make: Modern Welding; Model: Custom; Capacity: 15,500 gal; Installation: 1989)	STAR 7.12	NA	S-42a
E-90	AST 2 – Mineral Spirits from stearic acid processing (Make: Modern Welding; Model: Custom; Capacity: 15,500 gal; Installation: 1989)			S-42b
E-91	AST 3 – Non-Distillable Mineral Spirits (Make: Modern Welding; Model: Custom; Capacity: 15,500 gal; Installation: 1989)			S-42c
E-92	AST 4 – Mineral Spirits (old stearic acid) (Make: Modern Welding; Model: Custom; Capacity: 15,500 gal; Installation: 1989)			S-42c
E-107	AST 5 – High Flash Naphtha (Make: Modern Welding; Model: Custom; Capacity: 6,000 gal; Installation: 1989)			S-42e
E-93	AST 6 – Mineral Spirits OR-6 (Make: Modern Welding; Model: Custom; Capacity: 15,500 gal; Installation: 1989)			S-42f
E-94	AST 7 – Mineral Spirits OR-6 (Make: Modern Welding; Model: Custom; Capacity: 15,500 gal; Installation: 1989)			S-42h
E-166	AST 8 – Distillable Mineral Spirits (Make: Modern Welding; Model: Custom; Capacity: 15,500 gal; Installation: 2002)			S-42i
E-167	AST 9 – Distilled Mineral Spirits (Make: Modern Welding; Model: Custom; Capacity: 15,500 gal; Installation: 2002)			S-42j
E-168	AST 10 – Virgin Mineral Spirits (Make: Modern Welding; Model: Custom; Capacity: 15,500 gal; Installation: 2002)			S-42k
E-169	AST 11 – Used Mineral Spirits OR-6 (Make: Modern Welding; Model: Custom; Capacity: 15,500 gal; Installation: 2002)			S-42l

Emission Point	Description	Applicable Regulation	Control ID	Stack ID
E-108	AST 12 – Diesel fuel (Make: Steel; Model: Custom; Capacity: 1,000 gal; Installation: 1990)	STAR 7.12		S-42g

U-16 Control Devices

There are no control devices associated with this unit.

U-16 Specific Conditions

S1. **Standards** (Regulation 2.16, section 4.1.1)

a. **VOC**

The owner or operator shall not store materials with an as stored vapor pressure of greater than or equal to 1.5 psia in the storage vessels, unless the storage tank is equipped with a permanent submerged fill pipe. (Regulation 7.12, section 3.3)

b. **TAC**

See U-16 Comment 1.

S2. **Monitoring and Record Keeping** (Regulation 2.16, sections 4.1.9.1 and 4.1.9.2)

a. **VOC**

i. The owner or operator of the storage vessels shall maintain records of the material stored and the vapor pressure in each storage vessel and if the contents of the storage vessels are changed a record shall be made of the new contents, the date of the change, and the new vapor pressure in order to demonstrate compliance with U-16 Specific Condition S1.a.

ii. The owner or operator shall keep a record that shows if the storage vessel is equipped with a submerged fill pipe. Submerged fill pipe means any fill pipe the discharge of which is entirely submerged when the liquid level is 6 inches above the bottom of the tank; or when applied to a tank which is loaded from the side, shall mean every fill pipe the discharge opening of which is entirely submerged when the liquid level is 2 times the fill pipe diameter above the bottom of the tank.

b. **TAC**

See U-16 Comment 1.

S3. **Reporting** (Regulation 2.16, section 4.1.9.3)

The owner or operator shall include, at a minimum, the following information in the semi-annual compliance monitoring reports. If no deviations from permit requirements occur during a reporting period, the owner or operator shall submit a negative declaration stating that no permit deviations occurred during the reporting period.

a. **VOC**

There are no compliance reporting requirements for this equipment.

b. **TAC**

See U-16 Comment 1.

U-16 Comments

1. All the equipment in this emission unit are Insignificant Activities, therefore by definition are de minimis for STAR.

2. For the storage vessels, Regulation 7.12 applies due to the size of the tanks, but, since the vapor pressure as stored of Mineral Spirits and High Flash Naphtha are 0.04 psia; also, the vapor pressure of Diesel fuel oil is less than 1.5 psia there are no applicable standards in the regulations.

Emission Unit U-17: Stills

Stills are used to remove impurities from used solvent for re-use in production.

U-17 Applicable Regulations

FEDERALLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
6.24	Standard of Performance for Existing Sources Using Organic Materials	1, 2, 3.3, 4, 5, 6, 7
7.25	Standards of Performance for New Sources Using Volatile Organic Compounds	1, 2, 3.2, 4, 5

DISTRICT ONLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
5.00	Definitions (STAR)	1, 2
5.01	General Provisions (STAR)	1 through 2
5.20	Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant (STAR)	1 through 6
5.21	Environmental Acceptability for Toxic Air Contaminants (STAR)	1 through 5
5.22	Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant (STAR)	1 through 5
5.23	Categories of Toxic Air Contaminants (STAR)	1 through 6

U-17 Equipment

Emission Point	Description	Applicable Regulation	Control ID	Stack ID
E-96	Still 2 w/Condenser (Make: Patterson Ludlow; Model Custom; Capacity: 350 gal/hr; Installed: 1970)	STAR 6.24	C-9	S-86
E-97	Still 3 w/Condenser (Make: Patterson Ludlow; Model Custom; Capacity: 350 gal/hr; Installed: 1970)		C-9	S-86
E-98	Still 2 – 3 Feed Tank (Make: Custom; Model: NA; Capacity: 200 gallons; Installed: 1970)		NA	Fugitive
E-99	Vacuum Pump (Still 2 – 3) (Make: Nash; Model AT124; Capacity: 350 gal/hr; Installed: 1970)		C-9	S-86
E-100	Sludge Accumulator Tank (Make: Kirk & Blum; Model Custom; Capacity: 1,000 gallons; Installed: 1981)	STAR 7.25	C-9	S-86
E-210	Still 5 w/Condenser and Vacuum Pump (Make: Hering Ag/SIHI Anlagentechnik; Model: Custom/Lphe 45008; Capacity: 375 gal/hr; Installed: 2006)	STAR 7.25 (BACT)	C-9	S-86
E-240	Still 6 w/Condenser & Vacuum Pump (Make: Hering Ag/SIHI Anlagentechnik; Model: Custom/Lphe 45008; Capacity: 375 gal/hr; Installed: 2006)			
E-170	Miscellaneous Tank (T-74) (Make: BMI; Model: Custom; Capacity: 650 gallons; Installed: 2005)			
E-233	Still Settling Tank (T-104) (Make: Kirk & Blum; Model: Custom; Capacity: 900 gallons; Installed: 2004)			
E-234	Still Settling Tank (T-105) (Make: Kirk & Blum; Model: Custom; Capacity: 900 gallons; Installed: 2004)			
E-235	Still 5 Feed Tank (Make: Kirk & Blum; Model: Custom; Capacity: 290 gallons; Installed: 2006)			

Emission Point	Description	Applicable Regulation	Control ID	Stack ID
E-236	Still 5 Cooling Tank (Make: Kirk & Blum; Model: Custom; Capacity: 26 gallons; Installed 2006)	STAR 7.25 (BACT)	C-9	S-86
E-237	Still 5 Condensate Tank (Make: Kirk & Blum; Model: Custom; Capacity: 52 gallons; Installed 2006)			
E-238	Still 5 OWS (Make: Kirk & Blum; Model: Custom; Capacity: 26 gallons; Installed 2006)			
E-239	Still 6 Feed Tank (Make: Kirk & Blum; Model: Custom; Capacity: 290 gallons; Installed: 2006)			
E-241	Still 6 Cooling Tank (Make: Kirk & Blum; Model: Custom; Capacity: 26 gallons; Installed 2006)			
E-242	Still 6 Condensate Tank (Make: Kirk & Blum; Model: Custom; Capacity: 52 gallons; Installed 2006)			
E-243	Still 6 OWS (Make: Kirk & Blum; Model: Custom; Capacity: 26 gallons; Installed 2006)			

U-17 Control Devices

Control ID	Description	Stack ID
C-9	SVR System (Dual Stage Condenser with Liquid/Vapor Separator)	S-86

U-17 Specific Conditions

S1. **Standards** (Regulation 2.16, section 4.1.1)

a. **VOC**

i. For Emission Points E-96, E-97, E-98, and E-99, the owner or operator shall not allow VOC emissions of Class II solvents to exceed 40 pounds per day nor 8 pounds per hour, unless the VOC emissions have been reduced by at least 85%. (Regulation 6.24, section 3.2)

ii. For Emission Points E-96, E-97, E-98, and E-99, the owner or operator shall not allow VOC emissions of Class III solvents to exceed 3000 pounds per day nor 450 pounds per hour, unless the VOC emissions have been reduced by at least 85%. (Regulation 6.24, section 3.3)

iii. The owner or operator shall not allow combined VOC emissions from the Press Tanks (U-13: E-61a, E-61b); Dryer 2/3 Holding Tank (U-14: E-232); Mixer 7 (U-15: E-135); **Sludge Accumulator Tank (U-17: E-100)**; Condensate Tanks (U-23: E-254, E-255); R&D Mixer (U-24, E-272); Filtrate Tanks (U-27: E-227, E-228) to equal or exceed 5 tons per 12 consecutive month period unless a BACT analysis is submitted to the District for review and approval in accordance with Regulation 7.25. (Regulation 7.25, section 3.1)
(Permit 36563-13-C, effective 4/26/2013)

iv. The owner or operator shall not allow VOC emissions from Vacuum Pumps for Still #5 (E-210) and Still #6 (E-240), and Ancillary Tanks (E-170, 233, 234, 235, 236, 237, 238, 239, 241, 242, and 243) combined to equal or exceed 3.794 tons per 12 consecutive month period. (BACT) (Regulation 7.25, section 3.1)
(Permit 36563-13-C, effective 4/26/2013)

b. **TAC**

See U-17 Comment 1.

S2. **Monitoring and Record Keeping** (Regulation 2.16, sections 4.1.9.1 and 4.1.9.2)

a. **VOC**

i. For Emission Point E-98 there are no compliance monitoring or record keeping requirements. (U-17 Comment 2)

ii. For Emission Points E-96, E-97, and E-99: If there is any time that the control device is bypassed or not in operation when the process is operating, then the owner or operator shall keep a record of the following for each bypass event:

1) Date;
2) Start time and stop time;
3) Identification of the control device and process equipment;
4) Summary of the cause or reason for each bypass event;
5) Corrective action taken to minimize the extent or duration of the bypass event;
6) VOC emissions in lb/day during the pass-event; and
7) Measures implemented to prevent reoccurrence of the situation that resulted in the bypass event.

iii. For Emission Points Press Tanks (U-13: E-61a, E-61b); Dryer 2/3 Holding Tank (U-14: E-232); Mixer 7 (U-15: E-135); **Sludge Accumulator Tank (U-17: E-100)**; Condensate Tanks (U-23: E-254, E-255); R&D Mixer (U-24, E-272);

Filtrate Tanks (U-27: E-227, E-228), there are no compliance monitoring or record keeping requirements. (U-17 Comment 3)

iv. For Emission Points Vacuum Pumps for Still #5 (E-210) and Still #6 (E-240), and Ancillary Tanks (E-170, 233, 234, 235, 236, 237, 238, 239, 241, 242, and 243): The owner or operator shall monthly calculate and record the previous 12 consecutive month VOC emissions in order to demonstrate the status of compliance with all applicable Regulation 7.25 limits.

v. The owner or operator shall use the emission factors in Appendix A unless alternative calculation methods or factors are approved by the District to demonstrate compliance with the hourly, daily or annual emission limits in U-17 Specific Conditions S1.a.i., S1.a.ii., and S1.a.iv.

b. **TAC**

See U-17 Comment 1.

S3. **Reporting** (Regulation 2.16, section 4.1.9.3)

The owner or operator shall include, at a minimum, the following information in the semi-annual compliance monitoring reports. If no deviations from permit requirements occur during a reporting period, the owner or operator shall submit a negative declaration stating that no permit deviations occurred during the reporting period.

a. **VOC**

i. For Emission Point E-98 there are no compliance reporting requirements. (U-17 Comment 2)

ii. For Emission Points E-96, E-97, and E-99: (U-17 Comment 5)

1) Identification of all periods of exceedance of the Regulation 6.24 pounds per day limits for Class II solvents including the quantity of excess emissions; and
2) Description of any corrective actions taken for each exceedance.

iii. For Emission Points Press Tanks (U-13: E-61a, E-61b); Dryer 2/3 Holding Tank (U-14: E-232); Mixer 7 (U-15: E-135); **Sludge Accumulator Tank (U-17: E-100)**; Condensate Tanks (U-23: E-254, E-255); R&D Mixer (U-24, E-272); Filtrate Tanks (U-27: E-227, E-228), there are no compliance reporting requirements. (U-17 Comment 3)

iv. For Emission Points Vacuum Pumps for Still #5 (E-210) and Still #6 (E-240), and Ancillary Tanks (E-170, 233, 234, 235, 236, 237, 238, 239, 241, 242, and 243) subject to Regulation 7.25:

1) Identification of all periods of exceedance of the Regulation 7.25 limits including the quantity of excess emissions; and
2) Description of any corrective actions taken for each exceedance.

b. **TAC**

See U-17 Comment 1.

U-17 Comments

1. All the emission points except E-96 and E-97 in this emission unit are Insignificant Activities, therefore by definition are de minimis for STAR. Emission Points E-96 and E-97 TAC emissions are either de minimis by MSDS percentage or TRI exempt.

2. Using EIIP Chapter 8 Surface Evaporation Emission Model, Emission Point E-98 cannot exceed the VOC emission standards uncontrolled, therefore, there are no monitoring, record keeping, reporting, or testing requirements.

3. For Emission Points For Emission Points Press Tanks (U-13: E-61a, E-61b); Dryer 2/3 Holding Tank (U-14: E-232); Mixer 7 (U-15: E-135); **Sludge Accumulator Tank (U-17: E-100)**; Condensate Tanks (U-23: E-254, E-255); R&D Mixer (U-24, E-272); Filtrate Tanks (U-27: E-227, E-228), the potential VOC emissions are less than 2 tons per year, therefore there are no monitoring, record keeping, or reporting requirements.

4. The Stills (E-96, E-97) discharge through the Vacuum Pump (E-99) and are not Insignificant Activities.

5. Using hourly controlled potential emissions obtained from the July 2013 Stack Test, Emission Points E-96 and E-97,cannot exceed the lb/hr or lb/day VOC emission standards for Class II and Class III solvents, but using AP 42 Chapter 4.7 Waste Solvent Reclamation uncontrolled emission factors the lb/day VOC emission standard for Class II solvents can be exceeded. The lb/day VOC emission standard for Class III solvents cannot be exceeded uncontrolled. Therefore, the permit contains by-pass event monitoring, record keeping, reporting and testing to demonstrate compliance with the lb/day VOC Class II solvent emission standard.

6. A tabulation of the various VOC emission limits is in Appendix B of this permit.

Emission Unit U-18: Parts Washers

Parts washers are used for cleaning of metal parts in maintenance activities.

U-18 Applicable Regulations

FEDERALLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
6.18	Standards of Performance for Solvent Metal Cleaning Equipment	1, 2, 3, 4.1, 4.2

DISTRICT ONLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
5.00	Definitions (STAR)	1, 2
5.01	General Provisions (STAR)	1 through 2
5.20	Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant (STAR)	1 through 6
5.21	Environmental Acceptability for Toxic Air Contaminants (STAR)	1 through 5
5.22	Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant (STAR)	1 through 5
5.23	Categories of Toxic Air Contaminants (STAR)	1 through 6

U-18 Equipment

Emission Point	Description	Applicable Regulation	Control ID	Stack ID
E-172	Cold Cleaner (secondary reservoir) (Maintenance shop) (Make: Crystal Kleen; Model: 1602R; Capacity: 25 gallons; Installed: 2005)	STAR 6.18	N/A	Fugitive
E-173	Cold Cleaner (secondary reservoir) (Maintenance shop) (Make: Crystal Kleen; Model: 1602R; Capacity: 25 gallons; Installed: 2005)			
E-245	Cold Cleaner #4 (Maintenance shop) (Make: Crystal Kleen; Model: 1634; Capacity: 30 gallons; Installed: 2009)			

U-18 Control Devices

There are no control devices associated with this unit.

U-18 Specific Conditions

S1. **Standards** (Regulation 2.16, section 4.1.1)

a. **VOC**

i. For cold solvent cleaners (parts washers), the owner or operator shall install, maintain, and operate the control equipment as follows:
(Regulation 6.18, section 4)

1) The cold cleaner shall be equipped with a tightly fitting cover that is free of cracks, holes, or other defects. If the solvent is agitated or heated, then the cover shall be designed so that it can be easily operated with 1 hand. (Regulation 6.18, section 4.1.1)

2) The cold cleaner shall be equipped with a drainage facility that is designed so that the solvent that drains off parts removed from the cleaner will return to the cold cleaner. The drainage facility may be external if the District determines that an internal type cannot fit into the cleaning system. (Regulation 6.18, section 4.1.2)

3) A permanent, conspicuous label summarizing the operating requirements specified in U-18 Specific Condition S1.a.ii.shall be installed on or near the cold cleaner. (Regulation 6.18, section 4.1.3)

4) If used, the solvent spray shall be a fluid stream, not a fine, atomized, or shower type spray, at a pressure that does not cause excessive splashing. Flushing of parts using a flexible hose or other flushing device shall be performed only within the freeboard area of the cold cleaner. Solvent flow shall be directed downward to avoid turbulence at the air-solvent interface and to prevent solvent from splashing outside of the cold cleaner. (Regulation 6.18, section 4.1.4)

5) Work area fans shall be located and positioned so that they do not blow across the opening of the cold cleaner. (Regulation 6.18, section 4.1.6)

6) The solvent-containing portion of the cold cleaner shall be free of all liquid leaks. Auxiliary cold cleaner equipment such as pumps, water separators, steam traps, or distillation units shall not have any visible liquid leaks, visible tears, or cracks. (Regulation 6.18, section 4.1.8)

ii. For cold solvent cleaners (parts washers), the owner or operator shall observe at all times the following operating requirements: (Regulation 6.18, section 4.2)

1) Waste solvent shall neither be disposed of nor transferred to another party in a manner such that more than 20% by weight of the waste solvent can evaporate. Waste solvent shall be stored only in a covered container. A covered container may contain a device that allows pressure relief, but does not allow liquid solvent to drain from the container. (Regulation 6.18, section 4.2.1)

2) The solvent level in the cold cleaner shall not exceed the fill line. (Regulation 6.18, section 4.2.2)

3) The cold cleaner cover shall be closed whenever a part is not being handled in the cold cleaner. (Regulation 6.18, section 4.2.3)

4) Parts to be cleaned shall be racked or placed into the cold cleaner in a manner that will minimize drag-out losses.
(Regulation 6.18, section 4.2.4)

5) Cleaned parts shall be drained for at least 15 seconds or until dripping ceases, whichever is longer. Parts having cavities or blind holes shall be tipped or rotated while the part is draining. During the draining, tipping, or rotating, the parts shall be positioned so that the solvent drains directly back to the cold cleaner. (Regulation 6.18, section 4.2.5)

6) A spill during solvent transfer shall be cleaned immediately, and the wipe rags or other sorbent material shall be immediately stored in a covered container for disposal or recycling, unless enclosed storage of these items is not allowed by fire protection authorities. (Regulation 6.18, section 4.2.6)

7) Sponges, fabric, wood, leather, paper products, and other absorbent material shall not be cleaned in a cold cleaner. (Regulation 6.18, section 4.2.7)

iii. The owner or operator shall not operate a cold cleaner using a solvent with a vapor pressure that exceeds 1.0 mm Hg (0.019 psi) measured at 20°C (68°F). (Regulation 6.18, section 4.3.2)

b. **TAC**

See U-18 Comment 1.

S2. **Monitoring and Record Keeping** (Regulation 2.16, sections 4.1.9.1 and 4.1.9.2)

a. **VOC**

For cold solvent cleaners (parts washers), the owner or operator shall maintain records that include the following for each purchase: (Regulation 6.18, section 4.4.2)

i. The name and address of the solvent supplier;

ii. The date of the purchase;

iii. The type of the solvent; and

iv. The vapor pressure of the solvent measured in mm Hg at 20°C (68°F).

b. **TAC**

See U-18 Comment 1.

S3. **Reporting** (Regulation 2.16, section 4.1.9.3)

The owner or operator shall include, at a minimum, the following information in the semi-annual compliance monitoring reports. If no deviations from permit requirements occur during a reporting period, the owner or operator shall submit a negative declaration stating that no permit deviations occurred during the reporting period.

a. **VOC**

There are no compliance reporting requirements for this equipment.

b. **TAC**

See U-18 Comment 1.

U-18 Comment

1. All the equipment in this emission unit are Insignificant Activities, therefore by definition are de minimis for STAR.

Emission Unit U-22: New Paste Process

Aluminum powder, mineral spirits and additional ingredients are mixed in ball mills to create an aluminum slurry. The slurry is held in storage tanks, and processed through the filter presses to produce aluminum filter cake.

U-22 Applicable Regulations

FEDERALLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
2.05	Prevention of Significant Deterioration of Air Quality	1
6.24	Standard of Performance for Existing Sources Using Organic Materials	1, 2, 3.3, 4, 5, 6, 7
7.08	Standards of Performance for New Process Operations	1, 2, 3.1.1, 3.3.1
7.12	Standards of Performance for New Storage Vessels for Volatile Organic Compounds	1, 2, 3.3, 4.1, 4.2, 7, 8
7.25	Standards of Performance for New Sources Using Volatile Organic Compounds	1, 2, 3.2, 4, 5

DISTRICT ONLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
5.00	Definitions (STAR)	1, 2
5.01	General Provisions (STAR)	1 through 2
5.20	Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant (STAR)	1 through 6
5.21	Environmental Acceptability for Toxic Air Contaminants (STAR)	1 through 5
5.22	Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant (STAR)	1 through 5
5.23	Categories of Toxic Air Contaminants (STAR)	1 through 6

U-22 Equipment

Emission Point	Description	Applicable Regulation	Control ID	Stack ID
E-62b	Tank RW1A (Slurry) (Make: Kirk & Blum; Model: Custom; Capacity: 1,300 gal; Installed: 1969)	STAR 6.24	C-9	S-86
E-67	Decanter 1 (Centrifuge) (Make: Sharples; Model: P-2000; Capacity: 25 gpm; Installed: 1960)		N/A	Fugitive
E-111	Ball Mill 7 (Make: Brunati Snc Castelfranco/Italy; Model: MA 1360; Capacity: 1,700 lb; Installed: 2001)	2.05 STAR, 7.08 7.25 (BACT	C-9	S-86
E-112	Ball Mill 8 (Make: Brunati Snc Castelfranco/Italy; Model: MA 1360; Capacity: 1,700 lb; Installed: 2001)			
E-113	Ball Mill 9 (Make: Brunati Snc Castelfranco/Italy; Model: MA 1360; Capacity: 1,700 lb; Installed: 2001)			
E-114	Ball Mill 10 (Make: Brunati Snc Castlefranco/Italy; Model: MA 1360; Capacity: 1,700 lb; Installed: 2001)			
E-115	Ball Mill 11 (Make: Brunati Snc Castelfranco/Italy; Model: MA 1660; Capacity: 2,700 lb; Installed: 2002)			
E-178	Ball Mill 12 (Make: Brunati Snc Castelfranco/Italy; Model: MA 1660; Capacity: 2,700 lb; Installed: 2003)			
E-116a through E-116x	24 Vibratory Screens (Screens 1 through 20, 23 through 26) (Make: F.B. Lehmann; Maschinenfabrik; Aalen-German; Model: VSE (2-Deck); Capacity: 600 gal/hr; Installed: 2003, 2002, 2001)	2.05 STAR 7.25 (BACT		
E-117a through E-117dd	30 Slurry Tanks (U-22 Comment 8) (Make: Kirk & Blum; Model: Ser 1000A_001; Capacity: 2,200 gal; Installed: 2003, 2002, 2001)			
E-118a through E-118j	10 Slurry Tanks (U-22 Comment 8) (Make: Kirk & Blum; Model: Custom; Capacity 5 @ 2,500 gal and 5 @ 2,200 gal; Installed 2003, 2001)			

Emission Point	Description	Applicable Regulation	Control ID	Stack ID
E-119a through E-119g	7 Filter Presses (1-6, 10) (Make: Warfinger Maschinenbau; Model: 815-45; Capacity: 900 lb; Installed: 2001)	2.05 STAR 7.25 (BACT)	C-9	S-86
E-120a & E-120b	2 Filter Presses (7 & 8) (Make: Warfinger Maschinenbau; Model: 630-27; Capacity: 300 lb; Installed: 2001)			
E-121a E-121b E-121c	3 Filter Presses (12 – 14) (Make: Warfinger Maschinenbau; Model: 950-65; Capacity: 1,800 lb; Installed: 2001)			
E-179a through E-179h	8 Filtrate Tanks (U-22 Comment 8) (Make: Kirk & Blum; Model: Custom; Capacity: Various; Installed 2000 - 2002)			
E-180	Decanter 2 (Centrifuge) (Make: Westfalia; Model: CA220-110; Capacity: 15 gpm; Installed: 2001)		NA	Fugitive
E-181	Portable Rework Hopper (Make: Custom; Model: Custom; Capacity: 70 gallons; Installed: 2005)			
E-270	Vapor Recovery Condensate Tank (Make: Kirk & Blum; Model: Custom; Capacity: 64 gallons; Installed 2004)			
E-246	B06 Decanter Tank (Make: Snyder Industries, Inc.; Model: Jumbo Drum; Capacity: 440 gallons; Installed: 2008)	STAR 7.12	C-9	S-86
E-247	B07 Decanter Tank (Make: Snyder Industries, Inc.; Model: Jumbo Drum; Capacity: 440 gallons; Installed: 2008)			
E-248	B08 Decanter Tank (Make: Snyder Industries, Inc.; Model: Jumbo Drum; Capacity: 440 gallons; Installed: 2008)			

U-22 Control Devices

Control ID	Description	Stack ID
C-9	SVR System (Dual Stage Condenser with Liquid/Vapor Separator)	S-86

U-22 Specific Conditions

S1. **Standards** (Regulation 2.16, section 4.1.1)

a. **VOC**

i. The owner or operator shall not allow VOC emissions of Class II solvents from emission point E-62b and E-67 to exceed 40 pounds per day nor 8 pounds per hour, unless the VOC emissions have been reduced by at least 85%.
(Regulation 6.24, section 3.2)

ii. The owner or operator shall not allow VOC emissions of Class III solvents from emission point E-62b and E-67 to exceed 3000 pounds per day nor 450 pounds per hour, unless the VOC emissions have been reduced by at least 85%.
(Regulation 6.24, section 3.3)

iii. The owner or operator shall not allow combined VOC emissions from E-231, E-232a (U-13); E-129, E-130, E-131, E-132, E-134, E-136, E-137 (U-15); **E-111, E-112, E-113, E-114, E-115, E-116 a-x, E-117 a-dd, E-118 a-j, E-178, E-119 a-g, E-120 a & b, E-121 a-c, E-270, E-179 a-h, E-180, and E-181** (**U-22);** E-123, E-125, E-126, E-127, E-252, and E-253 (U-23) to equal or exceed 40 tons per 12 consecutive month period in order to avoid PSD. The VOC limit is also considered BACT for Regulation 7.25.
(Regulation 7.25, section 3.1 and Regulation 2.05)
(Permit 36563-13-C, effective 4/26/2013)

iv. The owner or operator shall not store materials with an as stored vapor pressure of greater than or equal to 1.5 psia in the storage vessels, E-246, E-247, and E-248, unless the storage tank is equipped with a permanent submerged fill pipe.
(Regulation 7.12, section 3.3)

b. **TAC**

See U-22 Comment 1.

c. **PM**

For Emission Points E-111, E-112, E-113, E-114, E-115, and E-178, the owner or operator shall not allow PM emissions to exceed 2.34 lb/hr each.
(Regulation 7.08, section 3.1.2)

d. **Opacity**

For Emission Points E-111, E-112, E-113, E-114, E-115, and E-178, the owner or operator shall not cause or permit the discharge of emissions equal to or in excess of 20% opacity. (Regulation 7.08, section 3.1.1)

S2. **Monitoring and Record Keeping** (Regulation 2.16, sections 4.1.9.1 and 4.1.9.2)

a. **VOC**

i. For Emission Points E-231, E-232a (U-13); E-129, E-130, E-131, E-132, E-134, E-136, E-137 (U-15); **E-111, E-112, E-113, E-114, E-115, E-116 a-x, E-117 a-dd, E-118 a-j, E-178, E-119 a-g, E-120 a & b, E-121 a-c, E-270, E-179 a-h, E-180, and E-181** (**U-22);** E-123, E-125, E-126, E-127, E-252, and E-253 (U-23): The owner or operator shall monthly calculate and record the previous 12 consecutive month VOC emissions in order to demonstrate the status of compliance with all applicable Regulation 7.25 and PSD avoidance limits.

ii. The owner or operator shall use the emission factors in Appendix A unless alternative calculation methods or factors are approved by the District to demonstrate compliance with the hourly, daily or annual emission limits in U-22 Specific Conditions S1.a.i., S1.a.ii., and S1.a.iii.

iii. For Emission Points E-246, E-247, and E-248:

1) The owner or operator of the storage vessel(s) shall maintain records of the material stored and the vapor pressure in each storage vessel and if the contents of the storage vessels are changed a record shall be made of the new contents, the date of the change, and the new vapor pressure in order to demonstrate compliance with U-22 Specific Condition S1.a.iv.

2) The owner or operator shall keep a record that shows if the storage vessel is equipped with a submerged fill pipe. Submerged fill pipe means any fill pipe the discharge of which is entirely submerged when the liquid level is 6 inches above the bottom of the tank; or when applied to a tank which is loaded from the side, shall mean every fill pipe the discharge opening of which is entirely submerged when the liquid level is 2 times the fill pipe diameter above the bottom of the tank.

b. **TAC**

See U-22 Comment 1.

c. **PM**

There are no compliance monitoring or record keeping requirements for Emission Points E-111, E-112, E-113, E-114, E-115, and E-178. (U-22 Comment 2)

d. **Opacity**

There are no compliance monitoring or record keeping requirements for Emission Points E-111, E-112, E-113, E-114, E-115, and E-178. (U-22 Comment 2)

S3. **Reporting** (Regulation 2.16, section 4.1.9.3)

The owner or operator shall include, at a minimum, the following information in the semi-annual compliance monitoring reports. If no deviations from permit requirements occur during a reporting period, the owner or operator shall submit a negative declaration stating that no permit deviations occurred during the reporting period.

a. **VOC**

i. For Emission points subject to Regulation 6.24, there are no reporting requirements. (U-22 Comment 1)

ii. For Emission Points E-231, E-232a (U-13); E-129, E-130, E-131, E-132, E-134, E-136, E-137 (U-15); **E-111, E-112, E-113, E-114, E-115, E-116 a-x, E-117 a-dd, E-118 a-j, E-178, E-119 a-g, E-120 a & b, E-121 a-c, E-270, E-179 a-h, E-180, and E-181** (**U-22);** E-123, E-125, E-126, E-127, E-252, and E-253 (U-23) subject to Regulation 7.25:

1) Identification of all periods of exceedance of the Regulation 7.25 limits and PSD avoidance limits including the quantity of excess emissions; and

2) Description of any corrective actions taken for each exceedance.

iii. For Emission points subject to Regulation 7.12, there are no reporting requirements. (U-22 Comment 3)

b. **TAC**

See U-22 Comment 1.

c. **PM**

There are no compliance reporting requirements for Emission Points E-111, E-112, E-113, E-114, E-115, and E-178. (U-22 Comment 2)

d. **Opacity**

There are no compliance reporting requirements for Emission Points E-111, E-112, E-113, E-114, E-115, and E-178. (U-22 Comment 2)

U-22 Comments

1. All the equipment in this emission unit are Insignificant Activities, therefore by definition are de minimis for STAR.
2. Using an AP-42 emission factor (Chapter 11.24, Metallic Mineral Processing: Material Handling and Transfer – low moisture ore) Emission Points E-111, E-112, E-113, E-114, E-115, and E-178, cannot exceed the emission standards uncontrolled, therefore there are no monitoring, record keeping, reporting, or testing requirements. The District has determined that since these emission points are Insignificant Activities there should not be any opacity exceedances, therefore, there are no monitoring, record keeping, reporting, or testing requirements.
3. For the storage vessels (B06, B07, and B08), Regulation 7.12 applies due to the size of the tanks, but, since the vapor pressure as stored of Mineral Spirits and High Flash Naphtha are 0.04 psia, which is less than 1.5 psia there are no applicable standards in the regulations.
4. Using hourly potential emissions obtained from an EIIP emission model and TANKS 4.0.9.d, Emission Points E-62b and E-67 cannot exceed the VOC emission standards for Class II and Class III solvents, therefore there are no monitoring, record keeping, reporting, or testing requirements.
5. The Decanter Tanks, B06, B07, B08 can be transported between U-22 and U-24, but they are only controlled by the condenser (C-9) when active in U-22.
6. The less than 40 tons per 12 consecutive month limit is to avoid PSD/Nonattainment NSR for emission points E-231 (U-13); E-129, E-130, E-131, E-132, E-134, E-136, E-137 (U-15); **E-111, E-112, E-113, E-114, E-115, E-116 a-x, E-117 a-dd, E-118 a-j, E-178, E-119 a-g, E-120 a & b, E-121 a-c, E-270, E-179 a-h, E-180, and E-181 (U-22);** E-123, E-125, E-126, and E-127, E-252, E-253 (U-23) combined.
7. A tabulation of the various plant-wide VOC emission limits is in Appendix B of this permit.

8. The following table lists the specific identifiers for tanks in Emission Points E-117, E-118, and E-179.

E-117a	RW1 (Mill 7 Slurry Tank)	E-117p	T-21 (Press 1 Slurry Tank)
E-117b	RW2 (Press 7 Slurry Tank)	E-117q	T-22 (Press 2 Slurry Tank)
E-117c	RW5 (Mill 8 Slurry Tank)	E-117r	T-23 (Press 3 Slurry Tank)
E-117d	RW6 (Mill 8 Slurry Tank)	E-117s	T-24 (Press 4 Slurry Tank)
E-117e	RW7 (Mill Fines Slurry Tank)	E-117t	T-25 (Decanter Fines Tank)
E-117f	T-10 (Mills 7/8 Fines Slurry Tank)	E-117u	T-26 (Decanter Fines Tank)
E-117g	T-11 (Mill 9 Slurry Tank)	E-117v	T-27 (Screen 15/16 Medium Tank)
E-117h	T-12 (Mills 9/10 Fines Slurry Tank)	E-117w	T-31 (Screen 14/15 Medium Tank)
E-117i	T-13 (Mill 9 Slurry Tank)	E-117x	T-32 (Decanter Course Tank)
E-117j	T-14 (Screen 11/12 Fines Tank)	E-117y	T-33 (Decanter Course Tank)
E-117k	T-15 (Mill 10 Slurry Tank)	E-117z	T-45 (Press 10 Slurry Tank)
E-117l	T-16 (Screen 13/14 Fines Tank)	E-117aa	T-46 (Press 10 Slurry Tank)
E-117m	T-17 (Mill 10 Slurry Tank)	E-117bb	T-47 (Press 12 Slurry Tank)
E-117n	T-18 (Screen 15/16 Fines Tank)	E-117cc	T-48 (Press 13 Slurry Tank)
E-117o	T-19 (Medium Slurry Tank)	E-117dd	T-49 (Press 14 Slurry Tank)
E-118a	T-35 (Mill 11 Slurry Tank)	E-118f	T-58 (Mill 12 Slurry Tank)
E-118b	T-36 (Mill 11 Slurry Tank)	E-118g	T-59 (Mill 12 Slurry Tank)
E-118c	T-37 (Mill 11 Fines Slurry Tank)	E-118h	T-60 (Mill 12 Fines Slurry Tank)
E-118d	T-38 (Mill 11 Fines Slurry Tank)	E-118i	T-61 (Mill 12 Fines Slurry Tank)
E-118e	T-39 (Mill 11 Medium Slurry Tank)	E-118j	T-62 (Mill 12 Medium Slurry Tank)
E-179a	Tank T-28 (100 gallons)	E-179e	Tank T-51 (80 gallons)
E-179b	Tank T-29 (150 gallons)	E-179f	Tank T-52 (80 gallons)
E-179c	Tank T-30 (150 gallons)	E-179g	Tank T-53 (80 gallons)
E-179d	Tank T-34 (100 gallons)	E-179h	Tank T-71 (180 gallons)

Emission Unit U-23: Solvent Exchangers

Mineral spirits are evaporated from aluminum paste and are replaced with a mixture of additives.

U-23 Applicable Regulations

FEDERALLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
2.05	Prevention of Significant Deterioration of Air Quality	1
7.25	Standards of Performance for New Sources Using Volatile Organic Compounds	1, 2, 3.2, 4, 5

DISTRICT ONLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
5.00	Definitions (STAR)	1, 2
5.01	General Provisions (STAR)	1 through 2
5.20	Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant (STAR)	1 through 6
5.21	Environmental Acceptability for Toxic Air Contaminants (STAR)	1 through 5
5.22	Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant (STAR)	1 through 5
5.23	Categories of Toxic Air Contaminants (STAR)	1 through 6

U-23 Equipment

Emission Point	Description	Applicable Regulation	Control ID	Stack ID
E-123	Additive Tank #1 (Make: Fluid Mischtechnik, Model: Custom; Capacity: 80 gallons; Installed: 2002)	2.05 STAR 7.25 (BACT)	C-9	S-86
E-125	Additive Tank# 2 (R01) (Make: Fluid Mischtechnik, Model: Custom; Capacity: 317 gallons; Installed: 2002)			
E-126	Additive Tank #3 (R02) (Make: Fluid Mischtechnik, Model: Custom; Capacity: 317 gallons; Installed: 2002)			
E-127	Vacuum Pump No. 1 (Make: STERLING SIHI GmbH; Model: PLW500/1; Capacity: 100 cfm; Installed: 2002)			
E-252	SE (Solvent Exchanger) 1 Thermal Oil Tank (Make: Heitza; Model: Custom; Capacity: 80 gallons; Installed 2002)		N/A	S-77
E-253	SE (Solvent Exchanger) 2 Thermal Oil Tank (Make: Heitza; Model: Custom; Capacity: 80 gallons; Installed 2002)			S-79
E-184	Additive Tank #4 (SE2) (Make: Fluid Mischtechnik, Model: Custom; Capacity: 210 gallons; Installed: 2002)	STAR 7.25 (BACT)	C-9	S-86
E-185	Vacuum Pump No. 2 (Make: STERLING SIHI GmbH; Model: PLW500/1; Capacity: 100 cfm; Installed: 2002)			
E-254	SE (Solvent Exchanger) 1 Condensate Tank (Make: Kirk & Blum; Model: Custom; Capacity: 40 gallons; Installed 2009)	STAR 7.25		
E-255	SE (Solvent Exchanger) 2 Condensate Tank (Make: Kirk & Blum; Model: Custom; Capacity: 40 gallons; Installed 2009)			

U-23 Control Devices

Control ID	Description	Stack ID
C-9	SVR System (Dual Stage Condenser with Liquid/Vapor Separator)	S-86

U-23 Specific Conditions

S1. **Standards** (Regulation 2.16, section 4.1.1)

a. **VOC**

i. The owner or operator shall not allow combined VOC emissions from the Press Tanks (U-13: E-61a, E-61b); Dryer 2/3 Holding Tank (U-14: E-232); Mixer 7 (U-15: E-135); Sludge Accumulator Tank (U-17: E-100); **Condensate Tanks (U-23: E-254, E-255);** R&D Mixer (U-24, E-272); Filtrate Tanks (U-27: E-227, E-228) to equal or exceed 5 tons per 12 consecutive month period unless a BACT analysis is submitted to the District for review and approval in accordance with Regulation 7.25. (Regulation 7.25, section 3.1)
(Permit 36563-13-C, effective 4/26/2013)

ii. The owner or operator shall not allow combined VOC emissions from E-231, E-232a (U-13); E-129, E-130, E-131, E-132, E-134, E-136, E-137 (U-15); E-111, E-112, E-113, E-114, E-115, E-116 a-x, E-117 a-dd, E-118 a-j, E-178, E-119 a-g, E-120 a & b, E-121 a-c, E-270, E-179 a-h, E-180, and E-181 (U-22); **E-123, E-125, E-126, E-127, E-252, and E-253 (U-23)** to equal or exceed 40 tons per 12 consecutive month period in order to avoid PSD. The VOC limit is also considered BACT for Regulation 7.25.
(Regulation 7.25, section 3.1 and Regulation 2.05)
(Permit 36563-13-C, effective 4/26/2013)

iii. The owner or operator shall not allow or cause the VOC emissions from Additive Tank 4 (E-184) and the Vacuum Dryer/Solvent Exchanger (E-185) combined to equal or exceed 7.01 tons per 12 consecutive month period. (BACT)
(Regulation 7.25, section 3.1) (Permit 36563-13-C, effective 4/26/2013)

b. **TAC**

See U-23 Comment 1.

S2. **Monitoring and Record Keeping** (Regulation 2.16, sections 4.1.9.1 and 4.1.9.2)

a. **VOC**

i. For Emission Points Press Tanks (U-13: E-61a, E-61b); Dryer 2/3 Holding Tank (U-14: E-232); Mixer 7 (U-15: E-135); Sludge Accumulator Tank (U-17: E-100); **Condensate Tanks (U-23: E-254, E-255)**; R&D Mixer (U-24, E-272); Filtrate Tanks (U-27: E-227, E-228), there are no compliance monitoring or record keeping requirements. (U-23 Comment 2)

ii. For Emission Points E-231, E-232a (U-13); E-129, E-130, E-131, E-132, E-134, E-136, E-137 (U-15); E-111, E-112, E-113, E-114, E-115, E-116 a-x, E-117 a-dd, E-118 a-j, E-178, E-119 a-g, E-120 a & b, E-121 a-c, E-270, E-179 a-h, E-180, and E-181 (U-22); **E-123, E-125, E-126, E-127, E-252, and E-253 (U-23):** The owner or operator shall monthly calculate and record the previous 12 consecutive month VOC emissions in order to demonstrate the status of compliance with all applicable Regulation 7.25 and PSD avoidance limits.

iii. For Emission Points from Additive Tank 4 (E-184) and the Vacuum Dryer/Solvent Exchanger (E-185) combined: The owner or operator shall monthly calculate and record the previous 12 consecutive month VOC emissions in order to demonstrate the status of compliance with all applicable Regulation 7.25 limits.

iv. The owner or operator shall use the emission factors in Appendix A unless

alternative calculation methods or factors are approved by the District to demonstrate compliance with the annual emission limits in U-23 Specific Conditions S1.a.i, S1.a.ii., and S1.a.iii.

b. **TAC**

See U-23 Comment 1.

S3. **Reporting** (Regulation 2.16, section 4.1.9.3)

The owner or operator shall include, at a minimum, the following information in the semi-annual compliance monitoring reports. If no deviations from permit requirements occur during a reporting period, the owner or operator shall submit a negative declaration stating that no permit deviations occurred during the reporting period.

a. **VOC**

i. For Emission Points Press Tanks (U-13: E-61a, E-61b); Dryer 2/3 Holding Tank (U-14: E-232); Mixer 7 (U-15: E-135); Sludge Accumulator Tank (U-17: E-100); **Condensate Tanks (U-23: E-254, E-255)**; R&D Mixer (U-24, E-272); Filtrate Tanks (U-27: E-227, E-228), there are no compliance reporting requirements. (U-23 Comment 2)

ii. For Emission points E-231, E-232a (U-13); E-129, E-130, E-131, E-132, E-134, E-136, E-137 (U-15); E-111, E-112, E-113, E-114, E-115, E-116 a-x, E-117 a-dd, E-118 a-j, E-178, E-119 a-g, E-120 a & b, E-121 a-c, E-270, E-179 a-h, E-180, and E-181 (U-22); **E-123, E-125, E-126, E-127, E-252, and E-253 (U-23):**

1) Identification of all periods of exceedance of the Regulation 7.25 limits and PSD avoidance limits including the quantity of excess emissions; and
2) Description of any corrective actions taken for each exceedance.

iii. For Emission Points from Additive Tank 4 (E-184) and the Vacuum Dryer/Solvent Exchanger (E-185) combined:

1) Identification of all periods of exceedance of the Regulation 7.25 limits including the quantity of excess emissions; and
2) Description of any corrective actions taken for each exceedance.

b. **TAC**

See U-23 Comment 1.

U-23 Comments

1. All the equipment in this emission unit are Insignificant Activities, therefore by definition are de minimis for STAR.

2. For Emission Points For Emission Points Press Tanks (U-13: E-61a, E-61b); Dryer 2/3 Holding Tank (U-14: E-232); Mixer 7 (U-15: E-135); Sludge Accumulator Tank (U-17: E-100); **Condensate Tanks (U-23: E-254, E-255)**; R&D Mixer (U-24, E-272); Filtrate Tanks (U-27: E-227, E-228), the potential VOC emissions are less than 2 tons per year, therefore there are no monitoring, record keeping, or reporting requirements.

3. The less than 40 tons per 12 consecutive month limit is to avoid PSD/Nonattainment NSR for emission points E-231 (U-13); E-129, E-130, E-131, E-132, E-134, E-136, E-137 (U-15); E-111, E-112, E-113, E-114, E-115, E-116 a-x, E-117 a-dd, E-118 a-j, E-178, E-119 a-g, E-120 a & b, E-121 a-c, E-270, E-179 a-h, E-180, and E-181 (U-22); **E-123, E-125, E-126, and E-127, E-252, E-253 (U-23)** combined.

4. A tabulation of the various plant-wide VOC emission limits is in Appendix B of this permit.

Emission Unit U-24: Mills 13/14

Small batches of aluminum powder, mineral spirits and additional ingredients are mixed in ball mills to create an aluminum slurry. The slurry is held in storage tanks and processed through screens and filter presses to produce aluminum paste and filter cake.

U-24 Applicable Regulations

FEDERALLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
7.08	Standards of Performance for New Process Operations	1, 2, 3.1.1, 3.3.1
7.12	Standards of Performance for New Storage Vessels for Volatile Organic Compounds	1, 2, 3.3, 4.1, 4.2, 7, 8
7.25	Standards of Performance for New Sources Using Volatile Organic Compounds	1, 2, 3.2, 4, 5

DISTRICT ONLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
5.00	Definitions (STAR)	1, 2
5.01	General Provisions (STAR)	1 through 2
5.02	Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant (STAR)	1, 3.95 and 4
5.20	Environmental Acceptability for Toxic Air Contaminants (STAR)	1 through 6
5.21	Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant (STAR)	1 through 5
5.22	Categories of Toxic Air Contaminants (STAR)	1 through 5
5.23	Definitions (STAR)	1 through 6

U-24 Equipment

Emission Point	Description	Applicable Regulation	Control ID	Stack ID
E-186	Ball Mill 13 (Make: Brunati SNC; Model: Custom; Capacity: 450 lb; Installed: 2004)	STAR, 7.08 7.25 (BACT)	C-9	S-86
E-187	Ball Mill 14 (Make: Brunati SNC; Model: Custom; Capacity: 1,300 lb; Installed: 2004)			
E-188a	Screen 21 (Make: FB Lehmann; Model: VSE (2 deck); Capacity: 600 gal/hr; Installed: 2004)	STAR 7.25 (BACT)		
E-188b	Screen 22 (Make: FB Lehmann; Model: VSE (2 deck); Capacity: 600 gal/hr; Installed: 2004)			
E-189a through E-189d	4 Slurry Tanks (U-24 Comment 1) (Make: Kirk & Blum; Model: SER 4400A_001; Capacity: 1,200 gal each; Installed: 2004)			
E-190	Mill 14 Recirculation Tank (T-57A) (Make: Kirk & Blum; Model: Custom; Capacity: 2,700 gal; Installed: 2004)			
E-192	Filter Press 16 (Make: Wartinger Maschinenbau; Model: 630-27; Capacity: 300 lb; Installed: 2004)			
E-193	Filter Press 15 (Make: Wartinger Maschinenbau; Model: 500-20; Capacity: 175 lb; Installed: 2004)			
E-246	B06 Decanter Tank (Make: Snyder Industries, Inc.; Model: Jumbo Drum; Capacity: 440 gallons; Installed: 2008)	STAR 7.12	N/A	Fugitive
E-247	B07 Decanter Tank (Make: Snyder Industries, Inc.; Model: Jumbo Drum; Capacity: 440 gallons; Installed: 2008)			
E-248	B08 Decanter Tank (Make: Snyder Industries, Inc.; Model: Jumbo Drum; Capacity: 440 gallons; Installed: 2008)			
E-272	R&D Mixer (Make: Kirk & Blum; Model: Custom; Capacity: 90 gallons, Installed: 2004)	STAR 7.25	N/A	Fugitive

U-24 Control Devices

Control ID	Description	Stack ID
C-9	SVR System (Dual Stage Condenser with Liquid/Vapor Separator)	S-86

U-24 Specific Conditions

S1. **Standards** (Regulation 2.16, section 4.1.1)

a. **VOC**

i. The owner or operator shall not allow or cause the VOC emissions from Ball Mill #13 (E-186), to equal or exceed 1.0 ton per 12 consecutive month period for District Regulation 7.25 BACT. (Regulation 7.25, section 3.1)
(Permit 36563-13-C, effective 4/26/2013)

ii. The owner or operator shall not allow or cause the VOC emissions from Ball Mill #14 (E-187), to equal or exceed 1.0 ton per 12 consecutive month period for District Regulation 7.25 BACT. (Regulation 7.25, section 3.1)
(Permit 36563-13-C, effective 4/26/2013)

iii. The owner or operator shall not allow or cause the combined VOC emissions from ancillary equipment **E-188 a&b, E-189 a-d, E-190, E-192, E-193 (U-24);** E-195 a&b, E-197 a&b, E-198, E-199, E-200, E-249, E-250, and E-251 (U-25) to equal or exceed 1.0 ton per 12 consecutive month period for District Regulation 7.25 BACT. (Regulation 7.25, section 3.1)
(Permit 36563-13-C, effective 4/26/2013)

iv. The owner or operator shall not allow combined VOC emissions from the Press Tanks (U-13: E-61a, E-61b); Dryer 2/3 Holding Tank (U-14: E-232); Mixer 7 (U-15: E-135); Sludge Accumulator Tank (U-17: E-100); Condensate Tanks (U-23: E-254, E-255); **R&D Mixer (U-24, E-272);** Filtrate Tanks (U-27: E-227, E-228) to equal or exceed 5 tons per 12 consecutive month period unless a BACT analysis is submitted to the District for review and approval in accordance with Regulation 7.25. (Regulation 7.25, section 3.1)
(Permit 36563-13-C, effective 4/26/2013)

v. The owner or operator shall not store materials with an as stored vapor pressure of greater than or equal to 1.5 psia in the storage vessels, E-246, E-247, and E-428, unless the storage tank is equipped with a permanent submerged fill pipe. (Regulation 7.12, section 3.3)

b. **TAC**

See U-24 Comment 1.

c. **PM**

i. For Emission Point E-186, the owner or operator shall not allow PM emissions to exceed 2.34 lb/hr. (Regulation 7.08, section 3.1.2)

ii. For Emission Point E-187, the owner or operator shall not allow PM emissions to exceed 2.75 lb/hr. (Regulation 7.08, section 3.1.2)

d. **Opacity**

For Emission Points E-186 and E-187, the owner or operator shall not cause or permit the discharge of emissions equal to or in excess of 20% opacity.
(Regulation 7.08, section 3.1.1)

S2. **Monitoring and Record Keeping** (Regulation 2.16, sections 4.1.9.1 and 4.1.9.2)

a. **VOC**

i. For Emission Points Press Tanks (U-13: E-61a, E-61b); Dryer 2/3 Holding Tank (U-14: E-232); Mixer 7 (U-15: E-135); Sludge Accumulator Tank (U-17: E-100);

Condensate Tanks (U-23: E-254, E-255); **R&D Mixer (U-24, E-272)**; Filtrate Tanks (U-27: E-227, E-228), there are no compliance monitoring or record keeping requirements. (U-24 Comment 2)

ii. For Emission Points Ball Mill #13 (E-186); Ball Mill #14 (E-187); ancillary equipment **E-188 a&b, E-189 a-d, E-190, E-192, E-193 (U-24),** E-195 a&b, E-197 a&b, E-198, E-199, E-200, E-249, E-250, and E-251 (U-25) combined: The owner or operator shall monthly calculate and record the previous 12 consecutive month VOC emissions in order to demonstrate the status of compliance with all applicable Regulation 7.25 limits.

iii. The owner or operator shall use the emission factors in Appendix A unless alternative calculation methods or factors are approved by the District to demonstrate compliance with the annual emission limits in U-24 Specific Conditions S1.a.i., S1.a.ii., and S1.a.iii.

iv. For Emission Points E-246, E-247, and E-428:

1) The owner or operator of the storage vessel(s) shall maintain records of the material stored and the vapor pressure in each storage vessel and if the contents of the storage vessels are changed a record shall be made of the new contents, the date of the change, and the new vapor pressure in order to demonstrate compliance with U-24 Specific Condition S1.a.v.

2) The owner or operator shall keep a record that shows if the storage vessel is equipped with a submerged fill pipe. Submerged fill pipe means any fill pipe the discharge of which is entirely submerged when the liquid level is 6 inches above the bottom of the tank; or when applied to a tank which is loaded from the side, shall mean every fill pipe the discharge opening of which is entirely submerged when the liquid level is 2 times the fill pipe diameter above the bottom of the tank.

b. **TAC**

See U-24 Comment 1.

c. **PM**

There are no compliance monitoring or record keeping requirements for Emission Points E-186 and E-187. (U-24 Comment 3)

d. **Opacity**

There are no compliance monitoring or record keeping requirements for Emission Points E-186 and E-187. (U-24 Comment 3)

S3. **Reporting** (Regulation 2.16, section 4.1.9.3)

The owner or operator shall include, at a minimum, the following information in the semi-annual compliance monitoring reports. If no deviations from permit requirements occur during a reporting period, the owner or operator shall submit a negative declaration stating that no permit deviations occurred during the reporting period.

a. **VOC**

i. For Emission Points Press Tanks (U-13: E-61a, E-61b); Dryer 2/3 Holding Tank (U-14: E-232); Mixer 7 (U-15: E-135); Sludge Accumulator Tank (U-17: E-100); Condensate Tanks (U-23: E-254, E-255); **R&D Mixer (U-24, E-272)**; Filtrate Tanks (U-27: E-227, E-228), there are no compliance reporting requirements. (U-24 Comment 2)

ii. For Emission Points Ball Mill #13 (E-186); Ball Mill #14 (E-187); ancillary equipment **E-188 a&b, E-189 a-d, E-190, E-192, E-193 (U-24),** E-195 a&b, E-197 a&b, E-198, E-199, E-200, E-249, E-250, and E-251 (U-25) combined:

1) Identification of all periods of exceedance of the Regulation 7.25 limits including the quantity of excess emissions; and

2) Description of any corrective actions taken for each exceedance.

iii. For Emission points E-246, E-247, and E-428 subject to Regulation 7.12, there are no reporting requirements. (U-24 Comment 4)

b. **TAC**

See U-24 Comment 1.

c. **PM**

There are no compliance reporting requirements for Emission Points E-186 and E-187. (U-24 Comment 3)

d. **Opacity**

There are no compliance reporting requirements for Emission Points E-186 and E-187. (U-24 Comment 3)

U-24 Comments

1. All the equipment in this emission unit are Insignificant Activities, therefore by definition are de minimis for STAR.

2. For Emission Points For Emission Points Press Tanks (U-13: E-61a, E-61b); Dryer 2/3 Holding Tank (U-14: E-232); Mixer 7 (U-15: E-135); Sludge Accumulator Tank (U-17: E-100); Condensate Tanks (U-23: E-254, E-255); **R&D Mixer (U-24, E-272)**; Filtrate Tanks (U-27: E-227, E-228), the potential VOC emissions are less than 2 tons per year, therefore there are no monitoring, record keeping, or reporting requirements.

3. Using an AP-42 emission factor (Chapter 11.24, Metallic Mineral Processing: Material Handling and Transfer – low moisture ore) Emission Points E-186 and E-187, cannot exceed the emission standards uncontrolled, therefore there are no monitoring, record keeping, reporting, or testing requirements. The District has determined that since these emission points are Insignificant Activities there should not be any opacity exceedances, therefore, there are no monitoring, record keeping, reporting, or testing requirements.

4. For the storage vessels, E-246, E-247, and E-248 Regulation 7.12 applies due to the size of the tanks, but, since the vapor pressure as stored of Mineral Spirits and High Flash Naphtha are 0.04 psia, which is less than 1.5 psia there are no applicable standards in the regulations.

5. The following table lists the specific identifiers for tanks in Emission Point E-189

E-189a	Tank T-54 (Mill 13 Slurry Tank)
E-189b	Tank T-55 (Mill 13 Product Tank)
E-189c	Tank T-56 (Mill 14 Slurry Tank)
E-189d	Tank T-57 (Mill 14 Product Tank)

6. The Decanter Tanks, B06, B07, B08 can be transported between U-22 and U-24, but they are only controlled by the condenser (C-9) when active in U-22.

7. The District has approved the company submitted PTE showing that the equipment in Units 24 and 25 no longer have the potential to exceed the significant levels for VOCs under PSD/Nonattainment NSR. The PTE is based on performance test results, therefore, the District has removed the PSD/Nonattainment NSR limits.

8. A tabulation of the various plant-wide VOC emission limits is in Appendix B of this permit.

Emission Unit U-25: Zinc Mill

Mineral spirits, zinc powder, stearic acid and oleic acid are milled, screened and pressed to produce zinc paste.

U-25 Applicable Regulations

FEDERALLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
7.08	Standards of Performance for New Process Operations	1, 2, 3.1.1, 3.3.1
7.12	Standards of Performance for New Storage Vessels for Volatile Organic Compounds	1, 2, 3.3, 4.1, 4.2, 7, 8
7.25	Standards of Performance for New Sources Using Volatile Organic Compounds	1, 2, 3.2, 4, 5

DISTRICT ONLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
5.00	Definitions (STAR)	1, 2
5.01	General Provisions (STAR)	1 through 2
5.20	Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant (STAR)	1 through 6
5.21	Environmental Acceptability for Toxic Air Contaminants (STAR)	1 through 5
5.22	Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant (STAR)	1 through 5
5.23	Categories of Toxic Air Contaminants (STAR)	1 through 6

U-25 Equipment

Emission Point	Description	Applicable Regulation	Control ID	Stack ID
E-196	T-64 (Zinc Mineral Spirits Supply Tank) (Make: Kirk & Blum; Model: Custom; Capacity: 8,000 gal; Installed: 2005)	STAR 7.12	C-9	S-86
E-194	Ball Mill 20 (Make: Brunati SNC; Model: Custom; Capacity: 2,000 lb; Installed: 2005)	STAR, 7.08 7.25 (BACT)		
E-195a	Screen 27 (Make: FB Lehmann; Model: VSE (2 deck); Capacity: 600 gal/hr; Installed: 2005)	STAR 7.25 (BACT)		
E-195b	Screen 28 (Make: FB Lehmann; Model: VSE (2 deck); Capacity: 600 gal/hr; Installed: 2005)			
E-197a	T-67 (Zinc Mill Slurry Tank) (Make: Kirk & Blum; Model: Custom; Capacity: 2,650 gallons; Installed: 2005)			
E-197b	T-70 (Zinc Mill Press Tank) (Make: Kirk & Blum; Model: Custom; Capacity: 2,650 gallons; Installed: 2005)			
E-198	T-66 (Zinc Mill Coarse Slurry Tank) (Make: Kirk & Blum; Model: Custom; Capacity: 2,100 gallons; Installed: 2005)			
E-199	Filter Press 20 (Make: A Hering Hurnberg; Model: AH 16066DR; Capacity: 2,000 lb; Installed: 2005)			
E-200	Mixer 20 (Make: Battaggion; Model: IPA 2500 AP/T-ID; Capacity: 2,500 liters; Installed: 2005)			
E-251	T-69 (Filter Press Filtrate Tank) (Make: Kirk & Blum; Model: Custom; Capacity: 530 gallons; Installed: 2005)			
E-249	Zinc Mill Condensate Tank (T-65) (Make: Kirk & Blum; Model: Custom; Capacity: 50 gallons; Installed: 2005)			
E-250	T-68 (Filtrate Tank) (Make: Kirk & Blum; Model: Custom; Capacity: 50 gallons; Installed: 2005)			

U-25 Control Devices

Control ID	Description	Stack ID
C-9	SVR System (Dual Stage Condenser with Liquid/Vapor Separator)	S-86

U-25 Specific Conditions

S1. **Standards** (Regulation 2.16, section 4.1.1)

a. **VOC**

i. The owner or operator shall not allow or cause the VOC emissions from (Zinc Mill) #20 (E-194) (formerly #16), to equal or exceed 1.0 ton per 12 consecutive month period for District Regulation 7.25 BACT. (Regulation 7.25, section 3.1) (Permit 36563-13-C, effective 4/26/2013)

ii. The owner or operator shall not allow or cause the combined VOC emissions from ancillary equipment E-188 a&b, E-189 a-d, E-190, E-192, E-193 (U-24); **E-195 a&b, E-197 a&b, E-198, E-199, E-200, E-249, E-250, and E-251 (U-25)** to equal or exceed 1.0 ton per 12 consecutive month period for District Regulation 7.25 BACT. (Regulation 7.25, section 3.1)
(Permit 36563-13-C, effective 4/26/2013)

iii. The owner or operator shall not store materials with an as stored vapor pressure of greater than or equal to 1.5 psia in the storage vessel, unless the storage tank (Emission Point E-196) is equipped with a permanent submerged fill pipe. (Regulation 7.12, section 3.3)

b. **TAC**

See U-25 Comment 1.

c. **PM**

For Emission Point E-194, the owner or operator shall not allow PM emissions to exceed 3.59 lb/hr. (Regulation 7.08, section 3.1.2)

d. **Opacity**

For Emission Point E-194, the owner or operator shall not cause or permit the discharge of emissions equal to or in excess of 20% opacity.
(Regulation 7.08, section 3.1.1)

S2. **Monitoring and Record Keeping** (Regulation 2.16, sections 4.1.9.1 and 4.1.9.2)

a. **VOC**

i. For Emission Points Zinc Mill #20 (E-194) (formerly #16); ancillary equipment E-188 a&b, E-189 a-d, E-190, E-192, E-193 (U-24), **E-195 a&b, E-197 a&b, E-198, E-199, E-200, E-249, E-250, and E-251 (U-25)** combined**:** The owner or operator shall monthly calculate and record the previous 12 consecutive month VOC emissions in order to demonstrate the status of compliance with all applicable Regulation 7.25 limits.

ii. The owner or operator shall use the emission factors in Appendix A unless alternative calculation methods or factors are approved by the District to demonstrate compliance with the annual emission limits in U-25 Specific Conditions S1.a.i. and S1.a.ii.

iii. For Emission Point E-196

1) The owner or operator of the storage vessel shall maintain records of the material stored and the vapor pressure in each storage vessel and if the contents of the storage vessels are changed a record shall be made of the new contents, the date of the change, and the new vapor pressure in order to demonstrate compliance with U-25 Specific Condition S1.a.iii.

2) The owner or operator shall keep a record that shows if the storage vessel is equipped with a submerged fill pipe. Submerged fill pipe means any fill pipe the discharge of which is entirely submerged when the liquid level is 6 inches above the bottom of the tank; or when applied to a tank which is loaded from the side, shall mean every fill pipe the discharge opening of which is entirely submerged when the liquid level is 2 times the fill pipe diameter above the bottom of the tank.

b. **TAC**

See U-25 Comment 1.

c. **PM**

There are no compliance monitoring or record keeping requirements for Emission Point E-194. (U-25 Comment 2)

d. **Opacity**

There are no compliance monitoring or record keeping requirements for Emission Points E-194. (U-25 Comment 2)

S3. **Reporting** (Regulation 2.16, section 4.1.9.3)

The owner or operator shall include, at a minimum, the following information in the semi-annual compliance monitoring reports. If no deviations from permit requirements occur during a reporting period, the owner or operator shall submit a negative declaration stating that no permit deviations occurred during the reporting period.

a. **VOC**

i. For Emission Points Zinc Mill #20 (E-194) (formerly #16); ancillary equipment E-188 a&b, E-189 a-d, E-190, E-192, E-193 (U-24), **E-195 a&b, E-197 a&b, E-198, E-199, E-200, E-249, E-250, and E-251 (U-25)** combined**:**

1) Identification of all periods of exceedance of the Regulation 7.25 limits including the quantity of excess emissions; and

2) Description of any corrective actions taken for each exceedance.

b. **TAC**

See U-25 Comment 1.

c. **PM**

There are no compliance reporting requirements for Emission Point E-194.
(U-25 Comment 2)

d. **Opacity**

There are no compliance reporting requirements for Emission Points E-194.
(U-25 Comment 2)

U-25 Comments

1. All the equipment in this emission unit are Insignificant Activities, therefore by definition are de minimis for STAR.

2. Using an AP-42 emission factor (Chapter 11.24, Metallic Mineral Processing: Material Handling and Transfer – low moisture ore) Emission Point E-194, cannot exceed the emission standard uncontrolled, therefore there are no monitoring, record keeping, reporting, or testing requirements. The District has determined that since this emission point is an Insignificant Activities there should not be any opacity exceedances, therefore, there are no monitoring, record keeping, reporting, or testing requirements.

3. The District has approved the company submitted PTE showing that the equipment in Units 24 and 25 no longer have the potential to exceed the significant levels for VOCs under PSD/Nonattainment NSR. The PTE is based on performance test results, therefore, the District has removed the PSD/Nonattainment NSR limits.

4. A tabulation of the various plant-wide VOC emission limits is in Appendix B of this permit.

Emission Unit U-27: Solvent Wash

Distillable and Non-Distillable solvent wash and condensate collected from the dryers (U-14) and solvent exchangers (U-23) is pumped to solvent wash to remove impurities prior to distillation or disposal.

U-27 Applicable Regulations

FEDERALLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
7.12	Standards of Performance for New Storage Vessels for Volatile Organic Compounds	1, 2, 3.3, 4.1, 4.2, 7, 8
7.25	Standards of Performance for New Sources Using Volatile Organic Compounds	1, 2, 3.2, 4, 5

DISTRICT ONLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
5.00	Definitions (STAR)	1, 2
5.01	General Provisions (STAR)	1 through 2
5.20	Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant (STAR)	1 through 6
5.21	Environmental Acceptability for Toxic Air Contaminants (STAR)	1 through 5
5.22	Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant (STAR)	1 through 5
5.23	Categories of Toxic Air Contaminants (STAR)	1 through 6

U-27 Equipment

Emission Point	Description	Applicable Regulation	Control ID	Stack ID
E-223	B03 Tank (Non Distillable Wash) (Make: Kirk & Blum; Model: Custom; Capacity: 525 gallons; Installed: 2009)	STAR 7.12	C-9	S-86
E-224	B04 Tank (Distillable Wash) (Make: Kirk & Blum; Model: Custom; Capacity: 800 gallons; Installed: 2009)			
E-225	Filter Press 21 (Non Distillable Wash) (Make: A Hering Nurnberg; Model: AH 16066; Capacity: 300 lb; Installed: 2009)	STAR 7.25 (BACT)		
E-226	Filter Press 22 (Distillable Wash) (Make: A Hering Nurnberg; Model: AH 16066DR; Capacity: 300 lb; Installed: 2009)			
E-227	B05 Tank (Non Distillable Filtrate) (Make: Kirk & Blum; Model: Custom; Capacity: 70 gallons, Installed: 2009)	STAR 7.25		
E-228	B06 Tank (Distillable Filtrate) (Make: Kirk & Blum; Model: Custom; Capacity: 70 gallons, Installed: 2009)			

U-27 Control Devices

Control ID	Description	Stack ID
C-9	SVR System (Dual Stage Condenser with Liquid/Vapor Separator)	S-86

U-27 Specific Conditions

S1. **Standards** (Regulation 2.16, section 4.1.1)

a. **VOC**

i. The owner or operator shall not allow combined VOC emissions from the Press Tanks (U-13: E-61a, E-61b); Dryer 2/3 Holding Tank (U-14: E-232); Mixer 7 (U-15: E-135); Sludge Accumulator Tank (U-17: E-100); Condensate Tanks (U-23: E-254, E-255); R&D Mixer (U-24, E-272); **Filtrate Tanks (U-27: E-227, E-228)** to equal or exceed 5 tons per 12 consecutive month period unless a BACT analysis is submitted to the District for review and approval in accordance with Regulation 7.25. (Regulation 7.25, section 3.1)
(Permit 36563-13-C, effective 4/26/2013)

ii. The owner or operator shall not allow or cause the VOC emissions from Filter Presses (E-225 and E-226) combined to equal or exceed 1.0 ton per 12 consecutive month period for District Regulation 7.25 BACT.
(Regulation 7.25, section 3.1) (Permit 36563-13-C, effective 4/26/2013)

iii. The owner or operator shall not store materials with an as stored vapor pressure of greater than or equal to 1.5 psia in the storage vessels, E-223 and E-224, unless the storage tank is equipped with a permanent submerged fill pipe. (Regulation 7.12, section 3.3)

b. **TAC**

See U-27 Comment 1.

S2. **Monitoring and Record Keeping** (Regulation 2.16, sections 4.1.9.1 and 4.1.9.2)

a. **VOC**

i. For Emission Points Press Tanks (U-13: E-61a, E-61b); Dryer 2/3 Holding Tank (U-14: E-232); Mixer 7 (U-15: E-135); Sludge Accumulator Tank (U-17: E-100); Condensate Tanks (U-23: E-254, E-255); R&D Mixer (U-24, E-272); **Filtrate Tanks (U-27: E-227, E-228)**, there are no compliance monitoring or record keeping requirements. (U-27 Comment 2)

ii. For Emission Points Filter Presses (E-225 and E-226): The owner or operator shall monthly calculate and record the previous 12 consecutive month VOC emissions in order to demonstrate the status of compliance with all applicable Regulation 7.25 limits.

iii. The owner or operator shall use the emission factors in Appendix A unless alternative calculation methods or factors are approved by the District to demonstrate compliance with the annual emission limits in U-27 Specific Conditions S1.a.i. and S1.a.ii.

iv. For Emission Points E-223 and E-224:

1) The owner or operator of the storage vessel(s) shall maintain records of the material stored and the vapor pressure in each storage vessel and if the contents of the storage vessel(s) are changed a record shall be made of the new contents, the date of the change, and the new vapor pressure in order to demonstrate compliance with U-27 Specific Condition S1.a.iii.

2) The owner or operator shall keep a record that shows if the storage vessel is equipped with a submerged fill pipe. Submerged fill pipe means any

fill pipe the discharge of which is entirely submerged when the liquid level is 6 inches above the bottom of the tank; or when applied to a tank which is loaded from the side, shall mean every fill pipe the discharge opening of which is entirely submerged when the liquid level is 2 times the fill pipe diameter above the bottom of the tank.

b. **TAC**

See U-27 Comment 1.

S3. **Reporting** (Regulation 2.16, section 4.1.9.3)

The owner or operator shall include, at a minimum, the following information in the semi-annual compliance monitoring reports. If no deviations from permit requirements occur during a reporting period, the owner or operator shall submit a negative declaration stating that no permit deviations occurred during the reporting period.

a. **VOC**

i. For Emission Points Press Tanks (U-13: E-61a, E-61b); Dryer 2/3 Holding Tank (U-14: E-232); Mixer 7 (U-15: E-135); Sludge Accumulator Tank (U-17: E-100); Condensate Tanks (U-23: E-254, E-255); R&D Mixer (U-24, E-272); **Filtrate Tanks (U-27: E-227, E-228)**, there are no compliance reporting requirements. (U-27 Comment 2)

ii. For Emission points subject to Regulation 7.25:

1) Identification of all periods of exceedance of the Regulation 7.25 limits including the quantity of excess emissions; and

2) Description of any corrective actions taken for each exceedance.

iii. For Emission points E-223 and E-224, subject to Regulation 7.12, there are no reporting requirements. (U-25 Comment 2)

b. **TAC**

See U-27 Comment 1.

U-27 Comments

1. All the equipment in this emission unit are Insignificant Activities, therefore by definition are de minimis for STAR.

2. For Emission Points Press Tanks (U-13: E-61a, E-61b); Dryer 2/3 Holding Tank (U-14: E-232); Mixer 7 (U-15: E-135); Sludge Accumulator Tank (U-17: E-100); Condensate Tanks (U-23: E-254, E-255); R&D Mixer (U-24, E-272); **Filtrate Tanks (U-27: E-227, E-228)**, the potential VOC emissions are less than 2 tons per year, therefore there are no monitoring, record keeping, or reporting requirements.

3. For the storage vessels, Regulation 7.12 applies due to the size of the tanks, but, since the vapor pressure as stored of Mineral Spirits and High Flash Naphtha are 0.04 psia, which is less than 1.5 psia there are no applicable standards in the regulations.

4. A tabulation of the various plant-wide VOC emission limits is in Appendix B of this permit.

Emission Unit U-28: Cooling Tower

U-28 Applicable Regulations

FEDERALLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
7.08	Standards of Performance for New Process Operations	1, 2, 3.1, 3.2 and 3.3

U-28 Equipment

Emission Point	Description	Applicable Regulation	Control ID	Stack ID
E-269	Cooling Tower (Make: Baltimore Air Coil Co. of Canada; Model: 15177-2; Capacity: 354 tons; Installed: 2002)	7.08	NA	Fugitive

U-28 Control Devices

There are no control devices associated with this unit.

U-28 Specific Conditions

S1. **Standards** (Regulation 2.16, section 4.1.1)

a. **Opacity**

The owner or operator shall not allow visible emissions from E-269 to equal or exceed 20% opacity. (Regulation 7.08, section 3.1.1)

b. **PM**

The owner or operator shall not allow PM emissions of E-269 to exceed 42.29 lb/hr. (Regulation 7.08, section 3.1.2)

S2. **Monitoring and Record Keeping** (Regulation 2.16, sections 4.1.9.1 and 4.1.9.2)

a. **Opacity**

There are no monitoring or record keeping requirements for Opacity compliance for this equipment. (U-28 Comment 1)

b. **PM**

There are no monitoring or record keeping requirements for PM compliance for this equipment. (U-28 Comment 2)

S3. **Reporting** (Regulation 2.16, section 4.1.9.3)

The owner or operator shall include, at a minimum, the following information in the semi-annual compliance monitoring reports. If no deviations from permit requirements occur during a reporting period, the owner or operator shall submit a negative declaration stating that no permit deviations occurred during the reporting period.

a. **Opacity**

There are no compliance reporting requirements for this equipment. (U-28 Comment 1)

b. **PM**

There are no compliance reporting requirements for this equipment. (U-28 Comment 2)

U-28 Comments

1. The District has determined that visible emission surveys are not required since the emissions are coated in water and should not have opacity issues.
2. Using AP-42 emission factors (Chapter 13.4 for ‘Wet Cooling Towers’) E-269 cannot exceed the emission standard uncontrolled, therefore there are no monitoring, record keeping, reporting, or testing requirements.
3. There are no TACs emitted from this equipment.

Permit Shield

The owner or operator is hereby granted a permit shield that shall apply as long as the owner or operator demonstrates ongoing compliance with all conditions of this permit. Compliance with the conditions of this permit shall be deemed compliance with all applicable requirements of the regulations cited in this permit as of the date of issuance, pursuant to Regulation 2.16, section 4.6.1.

Off-Permit Documents

There are no Off-Permit documents associated with this Title V permit.

Alternative Operating Scenario

The company requested no alternative operating scenario in its Title V application.

Insignificant Activities

Equipment	Qty.	PTE (tpy)	Regulation Basis
Direct Heat Exchangers (U-1, U-2)	4	1.20 (NOx) total	Regulation 1.02
Air Slide Conveyor Pod (U-3)	1	4.32 (PM)	Regulation 1.02
Docking/Transfer Station (U-3)	1	0.71 (PM)	Regulation 1.02
Pressurized VOC Storage Vessels	6	0	Regulation 1.02, Appendix A
Research and Development Activities	6	2.82 (VOC) total	Regulation 1.02, Appendix A
VOC Storage Vessels with Maximum Capacity of 250 Gallons or Less (U-14, U-17, U-22, U-23, U-25, U-28)	24	1.24 (VOC) total	Regulation 1.02, Appendix A
Above Ground Fuel Oil Storage Tanks (U-16)	1	0.09 (VOC)	Regulation 1.02, Appendix A
Cold solvent parts cleaners that are equipped with a secondary reservoir (U-18)	2	0.04 (VOC) total	Regulation 1.02, Appendix A
Blending & Repack (U-7)	6	0.1 (PM) each	Regulation 1.02
Miscellaneous Tanks (U-13, U-17, U-24, U-25)	8	0.25 (VOC) total	Regulation 1.02
Centrifuge & Rework Hopper (U-22)	2	0.85 (VOC) total	Regulation 1.02
R&D Mixer (U-24)	1	0.21 (VOC)	Regulation 1.02

IA Comments

1. Insignificant Activities identified in District Regulation 1.02 Appendix A may be subject to size or production rate disclosure requirements.
2. Insignificant Activities identified in District Regulation 1.02 Appendix A shall comply with generally applicable requirements.
3. Activities identified in Regulation 1.02, Appendix A, may not require a permit and may be insignificant with regard to application disclosure requirements but may still have generally applicable requirements that continue to apply to the source and must be included in the permit.
4. Emissions from Insignificant Activities shall be reported in conjunction with the reporting of annual emissions of the facility as required by the District.

5. In lieu of recording annual throughputs and calculating actual annual emissions, the owner or operator may elect to report the pollutant Potential To Emit (PTE) quantity listed in the Insignificant Activities table, as the annual emission for each piece of equipment.

6. The Insignificant Activities Table is correct as of the date the permit was proposed for review by U.S. EPA, Region 4.

7. The owner or operator shall submit an updated list of Insignificant Activities whenever changes in equipment located at the facility occur that cause changes to the plant wide emissions.

Emission Unit IA-EG

IA-EG Unit Description: Emergency Generator(s)

IA-EG Applicable Regulations

FEDERALLY ENFORCEABLE REGULATIONS		
Regulation	**Title**	**Applicable Sections**
40 CFR 60, Subpart IIII	Standards of Performance for Stationary Compression Ignition Internal Combustion Engines	60.4200 - 4219
40 CFR 63, Subpart ZZZZ	National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines	63.6603, 6604, 6605, 6625, 6640, 6645, 6655
40 CFR 80, Subpart I	Motor Vehicle Diesel Fuel; Nonroad, Locomotive, and Marine Diesel Fuel; and ECA Marine Fuel	80.510
40 CFR 89, Subpart B	Emission Standards and Certification Provisions	89.112, 89.113
40 CFR 1039, Subpart B	Emission Standards and Related Requirements	1039.101, 1039.102, 1039.104, 1039.105

IA-EG Equipment

Emission Point	Description	Applicable Regulation	Control ID	Stack ID
E-EG	Emergency diesel generators are manufactured after April 1, 2006, with a maximum engine power less than or equal to 500 HP and located at an area source of HAP.	40 CFR 60, Subpart IIII 40 CFR 63, Subpart ZZZZ	N/A	N/A

IA-EG Specific Conditions

S1. **Standards** (Regulation 2.16, section 4.1.1)

a. **Unit Operation**

i. The owner or operator of a pre-2007 model year emergency stationary CI ICE with a displacement of less than 10 liters per cylinder that are not fire pump engines shall comply with the emission standards in Table 1 to this subpart. (40 CFR 60.4205(a)) (See Table 1)

Table 1 Emission standards for Pre-2007 model (40 CFR 60, Subpart IIII)

Maximum Engine Power	**Emission Standards in g/KW-hr (g/HP-hr)**				
	NMHC + NO_X	**HC**	**NO_X**	**CO**	**PM**
kW < 8 (hp < 11)	10.5 (7.8)			8.0 (6.0)	1.0 (0.75)
8 ≤ kW < 19 (11 ≤ hp < 25)	9.5 (7.1)			6.6 (4.9)	0.80 (0.60)
19 ≤ kW < 37 (25 ≤ hp < 50)	9.5 (7.1)			5.5 (4.1)	0.80 (0.60)
37 ≤ kW < 56 (50 ≤ hp < 75)			9.2 (6.9)		
56 ≤ kW < 75 (75 ≤ hp < 100)			9.2 (6.9)		
75 ≤ kW < 130 (100 ≤ hp < 175)			9.2 (6.9)		
130 ≤ kW < 225 (175 ≤ hp < 300)		1.3 (1.0)	9.2 (6.9)	11.4 (8.5)	0.54 (0.40)
225 ≤ kW < 375 (300 ≤ hp < 500)		1.3 (1.0)	9.2 (6.9)	11.4 (8.5)	0.54 (0.40)

ii. The owner or operator of a 2007 model year and later emergency stationary CI ICE with a displacement of less than 30 liters per cylinder that is not a fire pump engine shall comply with the emission standards (Table 2) obtained from 40 CFR 89.112, Table 1 for Tier 1 – 3 engines and 40 CFR 1039.101, Table 1 for Tier 4 engines, or the family emission limits (Table 3) obtained from 40 CFR 89.112, Table 2 for Tier 1 – 3 engines and 40 CFR 1039.101, Table 2 for Tier 4 engines, and smoke emission standards (Table 4) obtained from 40 CFR 89.113(a) for Tier 1-3 engines and 40 CFR 1039.105(b) for Tier 4 engines, for the same model year and maximum engine power for their 2007 model year and later emergency stationary CI ICE. (40 CFR 60.4205(b)) (40 CFR 60.4202)

Table 2 EPA Tier 1-4 Nonroad Diesel Engine Emission Standards[a], g/kW-hr (g/bhp-hr)

Maximum Engine Power	Tier	Model Year[b]	NO_x	HC	NMHC +NO_x	CO	PM
kW < 8 (hp < 11)	Tier 2/Tier 3	2005	-	-	7.5 (5.6)	8.0 (6.0)	0.8 (0.6)
	Tier 4	2008	-	-	7.5 (5.6)	8.0 (6.0)	0.4[c] (0.3)
8 ≤ kW < 19 (11 ≤ hp < 25)	Tier 2/Tier 3	2005	-	-	7.5 (5.6)	6.6 (4.9)	0.8 (0.6)
	Tier 4	2008	-	-	7.5 (5.6)	6.6 (4.9)	0.4 (0.3)
19 ≤ kW < 37 (25 ≤ hp < 50)	Tier 2/Tier 3	2004	-	-	7.5 (5.6)	5.5 (4.1)	0.6 (0.45)
	Tier 4	2008	-	-	7.5 (5.6)	5.5 (4.1)	0.3 (0.22)
		2013	-	-	4.7 (3.5)	5.5 (4.1)	0.03 (0.022)
37 ≤ kW < 56 (50 ≤ hp < 75)	Tier 2	2004	-	-	7.5 (5.6)	5.0 (3.7)	0.4 (0.3)
	Tier 3	2008	-	-	4.7 (3.5)	5.0 (3.7)	0.3[d] (0.22)
	Tier 4	2013	-	-	4.7 (3.5)	5.0 (3.7)	0.03 (0.022)
56 ≤ kW < 75 (75 ≤ hp < 100)	Tier 2	2004	-	-	7.5 (5.6)	5.0 (3.7)	0.4 (0.3)
	Tier 3	2008	-	-	4.7 (3.5)	5.0 (3.7)	0.4 (0.3)
	Tier 4	2012-2014[e]	0.4 (0.3)	0.19 (0.14)	-	5.0 (3.7)	0.02 (0.015)
75 ≤ kW < 130 (100 ≤ hp < 175)	Tier 2	2003	-	-	6.6 (4.9)	5.0 (3.7)	0.3 (0.2)
	Tier 3	2007	-	-	4.0 (3.0)	5.0 (3.7)	0.3 (0.2)
	Tier 4	2012-2014[e]	0.4 (0.3)	0.19 (0.14)	-	5.0 (3.7)	0.02 (0.015)
130 ≤ kW < 225 (175 ≤ hp < 300)	Tier 2	2003	-	-	6.6 (4.9)	3.5 (2.6)	0.2 (0.15)
	Tier 3	2006	-	-	4.0 (3.0)	3.5 (2.6)	0.2 (0.15)
	Tier 4	2011-2014[f]	0.4 (0.3)	0.19 (0.14)	-	3.5 (2.6)	0.02 (0.015)
225 ≤ kW ≤ 375 (300 ≤ hp ≤ 500)	Tier 3	2006	-	-	4.0 (3.0)	3.5 (2.6)	0.2 (0.15)
	Tier 4	2011-2014[f]	0.4 (0.3)	0.19 (0.14)	-	3.5 (2.6)	0.02 (0.015)

[a] Emission standards from 40 CFR 89.112 Table 1 for Tier 1-3 engines and 40 CFR 1039.101 Table 1 for Tier 4 engines.

[b] The model years listed indicate the model years for which the specified tier of limits take effect.

[c] Hand-startable, air-cooled, DI engines may be certified to Tier 2 standards through 2009 and to an optional PM standard of 0.6 g/kW-hr starting in 2010

[d] 0.4 g/kWh (Tier 2) if manufacturer complies with the 0.03 g/kW-hr standard from 2012

[e] PM/CO: full compliance from 2012; NO_x/HC: Option 1 (if banked Tier 2 credits used) – 50% engines shall comply in 2012-2013; Option 2 (if no Tier 2 credits claimed) – 25% engines shall comply in 2012-2014, with full compliance from 2014.12.31

[f] PM/CO: full compliance from 2011; NO_x/HC: 50% engines shall comply in 2011-2013

Table 3 EPA Tier 1-4 Nonroad Diesel Engine Family Emission Limits, g/kW-hr (g/bhp-hr)

Maximum Engine Power	Tier	Model Year[a]	NO_x	NMHC $+NO_x$	PM
kW < 8 (hp < 11)	Tier 2/Tier 3	2005	-	10.5 (7.8)	1.0 (0.7)
	Tier 4	-	-	10.5 (7.8)	0.8 (0.6)
8 ≤ kW < 19 (11 ≤ hp < 25)	Tier 2/Tier 3	2005	-	9.8 (7.3)	0.8 (0.6)
	Tier 4	-	-	9.5 (7.1)	0.8 (0.6)
19 ≤ kW < 37 (25 ≤ hp < 50)	Tier 2/Tier 3	2004	-	9.5 (7.1)	0.8 (0.6)
	Tier 4	-	-	7.5 (5.6)	0.05 (0.037)
37 ≤ kW < 56 (50 ≤ hp < 75)	Tier 2	2004	-	11.5 (8.6)	1.2 (0.9)
	Tier 3	2008	-	7.5 (5.6)	1.2 (0.9)
	Tier 4	-	-	7.5 (5.6)	0.05 (0.037)
56 ≤ kW < 75 (75 ≤ hp < 100)	Tier 2	2004	-	11.5 (8.6)	1.2 (0.9)
	Tier 3	2008	-	7.5 (5.6)	1.2 (0.9)
	Tier 4	-	0.8 (0.6)	-	0.04 (0.03)
75 ≤ kW < 130 (100 ≤ hp < 175)	Tier 2	2003	-	11.5 (8.6)	1.2 (0.9)
	Tier 3	2007	-	6.6 (4.9)	1.2 (0.9)
	Tier 4	-	0.8 (0.6)	-	0.04 (0.03)
130 ≤ kW < 225 (175 ≤ hp < 300)	Tier 2	2003	-	10.5 (7.8)	0.54 (0.04)
	Tier 3	2006	-	6.6 (4.9)	0.54 (0.4)
	Tier 4	-	0.8 (0.6)	-	0.04 (0.03)
225 ≤ kW ≤ 375 (300 ≤ hp ≤ 500)	Tier 3	2006	-	6.4 (4.8)	0.54 (0.4)
	Tier 4	-	0.8 (0.6)	-	0.04 (0.03)

Table 4 EPA Tier 1-4 Smoke Emission Standards

Maximum Engine Power	Tier	Smoke Emission Standards
0 < kW ≤ 375 (0 < hp ≤ 500)	Tier 1	(1) 20% during the acceleration mode (2) 15% during the lugging mode; or (3) 50% during the peaks in either the acceleration or lugging modes.
	Tier 2	
	Tier 3	
	Tier 4	

iii. The owner or operator of an emergency stationary CI ICE with a displacement of less than 30 liters per cylinder who conducts performance tests in-use shall meet the NTE standards as indicated in the Testing section of this permit. (40 CFR 60.4205(e))

iv. The owner or operator of any modified or reconstructed emergency stationary CI ICE subject to this subpart shall meet the emission standards applicable to the model year, maximum engine power, and displacement of the modified or reconstructed CI ICE that are specified in Table 2, Table 3, or the Testing section of this permit. (40 CFR 60.4205(f))

v. The owner or operator that is required comply with the emission standards specified in 40 CFR 60, Subpart IIII shall do all of the following: (40 CFR 60.4211(a))

1) Operate and maintain the stationary CI internal combustion engine and control device according to the manufacturer's emission-related written instructions; (40 CFR 60.4211(a)(1))

2) Change only those emission-related settings that are permitted by the manufacturer; (40 CFR 60.4211(a)(2))

vi. For a pre-2007 model year stationary CI internal combustion engine that shall comply with the emission standards specified in Table 1, the owner or operator shall demonstrate compliance according to one of the methods specified in paragraphs (b)(1) through (5) of this section. (40 CFR 60.4211(b))

1) Purchasing an engine certified according to 40 CFR part 89 or 40 CFR part 94, as applicable, for the same model year and maximum engine power. The engine shall be installed and configured according to the manufacturer's specifications. (40 CFR 60.4211(b)(1))

2) Keeping records of performance test results for each pollutant for a test conducted on a similar engine. The test shall have been conducted using the same methods specified in this subpart and these methods shall have been followed correctly. (40 CFR 60.4211(b)(2))

3) Keeping records of engine manufacturer data indicating compliance with the standards. (40 CFR 60.4211(b)(3))

4) Keeping records of control device vendor data indicating compliance with the standards. (40 CFR 60.4211(b)(4))

5) Conducting an initial performance test to demonstrate compliance with the emission standards according to the requirements specified in the Testing section of this permit, as applicable. (40 CFR 60.4211(b)(5))

vii. For a 2007 model year and later stationary CI internal combustion engine that shall comply with the emission standards specified in Table 2 and Table 3, the owner or operator shall purchase an engine certified to the emission standards in Table 2 and Table 3, as applicable for the same model year and maximum engine power. The engine shall be installed and configured according to the manufacturer’s specifications. (40 CFR 60.4211(c))

viii. For a modified or reconstructed stationary CI internal combustion engine that shall comply with the emission standards specified in Table 2, Table 3, or the Testing section of this permit, the owner or operator shall demonstrate compliance according to one of the methods specified in paragraphs (e)(1) or (2) of this section. (40 CFR 60.4211(e))

1) Purchasing, or otherwise owning or operating, an engine certified to the emission standards in Table 2, Table 3, or the Testing section of this permit, as applicable. (40 CFR 60.4211(e)(1))

2) Conducting a performance test to demonstrate initial compliance with the emission standards according to the requirements specified in the Testing section of this permit, as appropriate. The test shall be conducted within 60 days after the engine commences operation after the modification or reconstruction. (40 CFR 60.4211(e)(2))

ix. In order for the engine to be considered an emergency stationary ICE under this subpart, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in paragraphs (f)(1) through (3) of this section, is prohibited. If the owner or operator does not operate the engine according to the requirements below, the engine will not be considered an emergency engine under this subpart and shall meet all requirements for non-emergency engines. (40 CFR 60.4211(f))

1) There is no time limit on the use of emergency stationary ICE in emergency situations. (40 CFR 60.4211(f)(1))

2) The owner or operator may operate the emergency stationary ICE for any combination of the purposes specified in 60 CFR 60.4211(f)(2)(i) through (iii) for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by 60 CFR 60.4211(f)(3) counts as part of the 100 hours per calendar year allowed by this paragraph. (40 CFR 60.4211(f)(2))

(a) Emergency stationary ICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year. (40 CFR 60.4211(f)(2)(i))

(b) Emergency stationary ICE may be operated for emergency demand response for periods in which the Reliability Coordinator under the North American Electric Reliability Corporation (NERC) Reliability Standard EOP-002-3, Capacity and Energy Emergencies (incorporated by reference, see 40 CFR 60.17), or other authorized entity as determined by the Reliability Coordinator, has declared an Energy Emergency Alert Level 2 as defined in the NERC Reliability Standard EOP-002-3. (40 CFR 60.4211(f)(2)(ii))

(c) Emergency stationary ICE may be operated for periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency.
(40 CFR 60.4211(f)(2)(iii))

3) Emergency stationary ICE may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in 40 CFR 60.4211(f)(2). Except as provided in 40 CFR 60.4211(f)(3)(i), the 50 hours per calendar year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity. (40 CFR 60.4211(f)(3))

(a) The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the following conditions are met: (40 CFR 60.4211(f)(3)(i))

(i) The engine is dispatched by the local balancing authority or local transmission and distribution system operator; (40 CFR 60.4211(f)(3)(i)(A))

(ii) The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region. (40 CFR 60.4211(f)(3)(i)(B))

(iii) The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines. (40 CFR 60.4211(f)(3)(i)(C))

(iv) The power is provided only to the facility itself or to support the local transmission and distribution system. (40 CFR 60.4211(f)(3)(i)(D))

(v) The owner or operator identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the engine owner or operator. (40 CFR 60.4211(f)(3)(i)(E))

b. **Fuel Requirements**

Beginning October 1, 2010, the owner or operator of a stationary CI ICE subject to this subpart with a displacement of less than 30 liters per cylinder that uses diesel fuel shall use diesel fuel that meets the requirements of 40 CFR 80.510(b) for nonroad diesel fuel, except that any existing diesel fuel purchased (or otherwise obtained) prior to October 1, 2010, may be used until depleted: (40 CFR 60.4207(b))

i. Sulfur content: 15 parts per million (ppm) maximum for NR (nonroad) diesel fuel. (40 CFR 80.510(b)(1)(i))

ii. A minimum cetane index of 40; or (40 CFR 80.510(b)(2)(i))

iii. A maximum aromatic content of 35 volume percent. (40 CFR 80.510(b)(2)(ii))

S2. **Monitoring and Record Keeping (Regulation 2.16, sections 4.1.9.1 and 4.1.9.2)**

a. **Unit Operation**

i. The owner or operator of an emergency stationary CI internal combustion engine that does not meet the standards applicable to non-emergency engines shall install a non-resettable hour meter prior to startup of the engine.
(40 CFR 60.4209(a))

ii. The owner or operator is not required to submit an initial notification. Starting with the model years in Table 5 to this subpart, if the emergency engine does not meet the standards applicable to non-emergency engines in the applicable model year, the owner or operator shall keep records of the operation of the engine in emergency and non-emergency service that are recorded through the non-resettable hour meter. The owner shall record the time of operation of the engine and the reason the engine was in operation during that time. (40 CFR 60.4214(b))

Table 5 Labeling and Recordkeeping Requirements for New Stationary Emergency Engines

Engine Power	Starting Model Year
$19 \leq kW < 56$ ($25 \leq hp < 75$)	2013
$56 \leq kW < 130$ ($75 \leq hp < 175$)	2012
$130 \leq kW \leq 375$ ($175 \leq hp \leq 500$)	2011

b. **Fuel Requirements**

The owner or operator shall maintain records of the fuel MSDS sheets and receipts showing dates, amounts of fuel purchased, sulfur content of fuel purchased and supplier's name and address, to show compliance with IA-EG Specific Condition S1.b.

S3. **Reporting (Regulation 2.16, section 4.1.9.3)**

The owner or operator shall submit compliance reports that include the information in this section.

a. **Unit Operation**

i. The owner or operator is not required to submit an initial notification.
(40 CFR 60.4214(b))

ii. The owner or operator shall identify all periods of exceeding the hour limits specified in IA-EG Specific Condition S1.a.ix during the reporting period. The compliance report shall include the following:

1) Identification of all periods during which a deviation occurred;

2) A description, including the magnitude, of the deviation;

3) If known, the cause of the deviation;

4) A description of all corrective actions taken to abate the deviation; and

5) If no deviations occur during a reporting period, the report shall contain a negative declaration.

iii. For an emergency stationary CI ICE with a maximum engine power more than 100 HP that operates or is contractually obligated to be available for more than

15 hours per calendar year for the purposes specified in IA-EG Specific Conditions S1.a.ix.2)(b) and S1.a.ix.2)(c), or that operates for the purposes specified in S1.a.ix.3)(a), the owner or operator shall submit an annual report according to the requirements in the following paragraphs: (40 CFR 60.4214(d))

1) The report shall contain the following information: (40 CFR 60.4214(d)(1))

(a) Company name and address where the engine is located. (40 CFR 60.4214(d)(1)(i))

(b) Date of the report and beginning and ending dates of the reporting period. (40 CFR 60.4214(d)(1)(ii))

(c) Engine site rating and model year. (40 CFR 60.4214(d)(1)(iii))

(d) Latitude and longitude of the engine in decimal degrees reported to the fifth decimal place. (40 CFR 60.4214(d)(1)(iv))

(e) Hours operated for the purposes specified in 40 CFR 60.4211(f)(2)(ii) and (iii), including the date, start time, and end time for engine operation for the purposes specified in 40 CFR 60.4211(f)(2)(ii) and (iii). (40 CFR 60.4214(d)(1)(v))

(f) Number of hours the engine is contractually obligated to be available for the purposes specified in 40 CFR 60.4211(f)(2)(ii) and (iii). (40 CFR 60.4214(d)(1)(vi))

(g) Hours spent for operation for the purposes specified in 40 CFR 60.4211(f)(3)(i), including the date, start time, and end time for engine operation for the purposes specified in 40 CFR 60.4211(f)(3)(i). The report shall also identify the entity that dispatched the engine and the situation that necessitated the dispatch of the engine. (40 CFR 60.4214(d)(1)(vii))

2) The first report shall cover the calendar year 2015 and shall be submitted no later than March 31, 2016. Subsequent reports for each calendar year shall be submitted as required by your operating permit. (40 CFR 60.4214(d)(2))

3) The report shall be submitted electronically using the subpart specific reporting form in the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) (*www.epa.gov/cdx*). However, if the reporting form specific to this subpart is not available in CEDRI at the time that the report is due, the written report shall be submitted to the Administrator at the appropriate address listed in 40 CFR 60.4. (40 CFR 60.4214(d)(3))

b. **Fuel Requirements**

There are no routine compliance reporting requirements for this equipment.

S4. **Testing (Regulation 2.16, section 4.3.1)**

a. **Testing Requirements (40 CFR 60, Subpart IIII)**

The owner or operator of stationary CI ICE with a displacement of less than 30 liters per cylinder who conduct performance tests pursuant to this subpart shall do so according to the following paragraphs: (40 CFR 60.4212)

i. The performance test shall be conducted according to the in-use testing procedures in 40 CFR part 1039, subpart F, for stationary CI ICE with a displacement of less than 10 liters per cylinder, and according to 40 CFR part 1042, subpart F, for stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder. (40 CFR 60.4212(a))

ii. Exhaust emissions from stationary CI ICE that are complying with the emission standards for new CI engines in 40 CFR part 1039 shall not exceed the not-to-exceed (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))

iii. Exhaust emissions from stationary CI ICE that are complying with the emission standards for new CI engines in Table 2 or Table 3, as applicable, shall not exceed the NTE numerical requirements, rounded to the same number of decimal places as the applicable standard in Table 2 or Table 3, determined from the following equation: (40 CFR 60.4212(c))

NTE requirement for each pollutant = (1.25) × (STD) (Eq. 1)

Where:

STD = The standard specified for that pollutant in Table 2 or Table 3.

Alternatively, stationary CI ICE that are complying with the emission standards for new CI engines in Table 2 or Table 3 may follow the testing procedures specified in 40 CFR 60.4213 of this subpart, as appropriate.

iv. Exhaust emissions from stationary CI ICE that are complying with the emission standards for pre-2007 model year engines in Table 1 shall not exceed the NTE numerical requirements, rounded to the same number of decimal places as the applicable standard in Table 1, determined from the following equation: (40 CFR 60.4212(d))

Where:
STD = The standard specified for that pollutant in Table 1.

Alternatively, stationary CI ICE that are complying with the emission standards for pre-2007 model year engines in Table 1 may follow the testing procedures specified in 40 CFR 60.4213, as appropriate.

v. Exhaust emissions from stationary CI ICE that are complying with the emission standards for new CI engines 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))

b. **General Testing Requirements**

The owner or operator shall construct all equipment in such a manner that the following testing requirements can be performed.

i. The test shall be performed at 90% or higher of maximum capacity, or allowable/permitted capacity, or at a level of capacity which results in the greatest emissions and is representative of the operations. Failure to perform the test, at maximum capacity, allowable/permitted capacity, or at a level of capacity which resulted in the greatest emissions, may necessitate a re-test or necessitate a revision of the allowable/permitted capacity of the process equipment depending upon the difference between the testing results and the limit.

ii. The owner or operator shall submit written compliance test plans (protocol) for the test. They shall include the EPA test methods that will be used for compliance testing, the process operating parameters that will be monitored during the performance test, and the control device performance indicators (e.g. pressure drop, minimum combustion chamber temperature) that will be monitored during the performance test. The compliance test plans shall be furnished to the District at least 30 days prior to the actual date of the performance test. Attached to the permit is a Protocol Checklist for Performance Test for the information to be submitted in the protocol.

iii. The owner or operator shall be responsible for obtaining and analyzing audit samples when the EPA Reference Method is used to analyze samples to demonstrate compliance with the source's emission regulation. The audit samples shall be available for verification by the District during the onsite testing. (IA-EG Comment 3)

iv. The owner or operator shall provide the District at least 10 days prior notice of any performance test to afford the District the opportunity to have an observer present.

v. The owner or operator shall furnish the District with a written report of the results of the performance test within 60 days following the actual date of completion of the performance test.

IA-EG Comments

1. This unit is is subject to 40 CFR 63, Subpart ZZZZ, *National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines*, because it involves a stationary reciprocating internal combustion engine (RICE) located at an area source of HAP emissions. The proposed new stationary RICE meets the definition in 40 CFR 63.6675 of an emergency stationary RICE, which, per 40 CFR 63.6590(b)(1)(i), does not have to meet the requirements of 40 CFR 63 Subpart ZZZZ and of 40 CFR 63 Subpart A.

2. The associated storage tank for diesel fuel is exempt from District permitting requirements in accordance with Regulation 1.02, section 3.9.2.

3. Per an EPA rule change ("Restructuring of the Stationary Source Audit Program." Federal Register 75:176 (September 13, 2010) pp 55636-55657), sources became responsible for obtaining the audit samples directly from accredited audit sample suppliers, not the regulatory agencies.

4. Potential emissions for this permitted operation are greatest for nitrogen oxides (NO_x). Based on AP-42 Emission Factors and 500 hours per year for an emergency generator, as defined by EPA, the potential NO_x emissions for this permitted operation is less than 5 tons per year.

5. This insignificant emission unit allows the company to install emergency engines that meet the description without submitting construction applications.

Appendix A – Emission Factors and Calculation Methodologies

Emissions are calculated by multiplying the throughput (ton, MMCF, gallons, etc) or hours of operation of the equipment by the appropriate emission factor and 1 minus any control device's efficiency.

Table 1 Unit U-1: Boiler Room & U-2: Hot Air Furnace

Equipment	Emission Point	Emission Factor Source
Boiler #5	E-1	AP-42 Chapter 1.4-1, 1.4-2, 1.4-3, & 1.4-4 (small boilers)
Boiler #4	E-2	
Space Heater	E-138	
Nozzle Heater	E-140	
Space Heater	E-266	

Table 2 Unit U-2: Hot Air Furnace

Equipment	Emission Point	PM Emission Factor	Determination Method
Atomization Furnace	E-3(S-4)	82.84 lb/ton (uncontrolled) 10.77 lb/ton (multicyclone controlled)	**April 2012** Stack Test on Control Points E-5 and E-7
	E-3(S-5)	84.84 lb/ton (uncontrolled) 9.60 lb/ton (multicyclone controlled)	
M-7 & M-8 Screen Rooms	E-4 & E-6	0.12 lb/ton (uncontrolled)	AP-42 Chapter 11.24; Metallic Mineral Processing; Material Handling and Transfer - low moisture ore
Multicyclone Drum Loading	E-5a & E-7a		

Table 3 Unit U-3: Hot Air Direct Convey and Air Slide System

Equipment	Emission Point	PM Emission Factor	Determination Method
Buhler A Storage Tank	E-8a	17.27 lb/ton (uncontrolled) 2.59 lb/ton (cyclone controlled) 0.042 lb/ton (cyclone & mesh filter)	April 2012 Stack Test on Emission Point E-8a
Buhler A Weigh Tank	E-8b	0.12 lb/ton (uncontrolled) 0.018 lb/ton (cyclone controlled) 0.002 lb/ton (cyclone & mesh filter)	AP-42 Chapter 11.24; Metallic Mineral Processing; Material Handling and Transfer - low moisture ore
Buhler A Conveyor Pod	E-8c		
Rail Car Loading	E-9	15.54 lb/ton (uncontrolled) 2.33 lb/ton (cyclone controlled) 0.036 lb/ton (cyclone & mesh filter)	April 2012 Stack Test for E-8a and prorated
Air Slide Conveyor Pod	E-141	0.73 lb/ton (uncontrolled) 0.09 lb/ton (mesh filter controlled)	AP-42 Chapter 11.12; Concrete Batching; Pneumatic Cement Unloading to Elevated Bin

Equipment	Emission Point	PM Emission Factor	Determination Method
Docking/ Transfer Station	E-229	0.12 lb/ton (uncontrolled) 0.02 lb/ton (mesh filter controlled)	AP-42 Chapter 11.24; Metallic Mineral Processing; Material Handling and Transfer - low moisture ore

Table 4 Unit U-4: Hot Air Bin Fill

Equipment	Emission Point	PM Emission Factor	Determination Method
Storage Tanks	E-11 & E-12	5.72 lb/ton (uncontrolled) 0.86 lb/ton (cyclone controlled) 0.11 lb/ton (cyclone & mesh filter)	**October 2008** Stack Test for E-128 (U-6) and prorated based upon capacity
Filling Station	E-13 & E-15	0.12 lb/ton (uncontrolled) 0.018 lb/ton (cyclone controlled) 0.002 lb/ton (cyclone & mesh filter)	AP-42 Chapter 11.24; Metallic Mineral Processing; Material Handling and Transfer - low moisture ore

Table 5 Unit U-6: Classifier

Equipment	Emission Point	PM Emission Factor	Determination Method
15,000 lb Tank	E-25	4.77 lb/ton (uncontrolled) 0.71 lb/ton (cyclone controlled) 0.093 lb/ton (cyclone & mesh filter)	**October 2008** Stack Test for E-128 and prorated
Classifier 1 Weigh Tank	E-26a	0.12 lb/ton (uncontrolled)	AP-42 Chapter 11.24; Metallic Mineral Processing; Material Handling and Transfer - low moisture ore
Fines Bin	E-26b	0.12 lb/ton (uncontrolled) 0.018 lb/ton (cyclone controlled) 0.002 lb/ton (cyclone & mesh filter)	
Buhler C Conveyor Pod	E-26c		
Drum Loading	E-26d		
Buhler B Conveyor Pod	E-128b1		
Classifier 2 Weigh Tank	E-128b2	0.12 lb/ton (uncontrolled)	
30,000 lb Tank	E-128	6.36 lb/ton (uncontrolled) 0.95 lb/ton (cyclone controlled) 0.124 lb/ton (cyclone & mesh filter)	**October 2008** Stack Test

Table 6 Unit U-7: Blending/Repack

Equipment	Emission Point	PM Emission Factor	Determination Method
Gemco Tumble Blender	E-27	0.12 lb/ton (fugitive)	AP-42 Chapter 11.24; Metallic Mineral Processing; Material Handling and Transfer - low moisture ore
Double/Single Drum Tumbler	E-143		
Drum Dumper	E-147		
Vibrating Screen	E-148		
Screw Conveyor	E-230		
Hopper	E-145		
Bucket Fill (Feed Screw)	E-146		

Table 7 Unit U-8: Rescreen Operation

Equipment	Emission Point	PM Emission Factor/Rate	Determination Method
Flake 100 Drum/Tote Unloading	E-150	0.21 lb/ton (uncontrolled) 0.0015 lb/ton (mesh filter controlled)	**August 2006** Stack Test of Flake 100 Staging Vessel (E-152)
Flake 100 Staging Vessel	E-152		
Flake 100 Rescreener	E-154		
Flake 100 Drum Loading	E-156		
Powder 200 Drum/Tote Unloading	E-158		
Powder 200 Staging Vessel	E-160		
Powder 200 Rescreener	E-162		
Powder 200 Drum Loading	E-164		

Table 8 Unit U-13: Aluminum Paste Process

Equipment	Emission Point	VOC Emission Factor/Rate	Determination Method
Ball Mill #5	E-56	0.79 lb/hr (uncontrolled) 0.066 lb/hr (controlled)	**July 2013** Stack Test of Ball Mill #5 for both controlled and uncontrolled emission factors
Ball Mill #6	E-57		
Press Tank 4-S1	E-61a	0.11 lb/hr each (fugitive)	EIIP Volume II, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities (surface evaporation emission model)
Press Tank 4-S2	E-61b		
T-72 (Mill 6 Overflow Tank)	E-62a	0.089 lb/hr (fugitive)	
Course Screen Pot	E-64a	0.22 lb/hr (fugitive)	
Fines Screen Pot	E-64b	0.084 lb/hr (fugitive)	
Course Screen Pot Fines Screen Pot	E-65a, b	0.23 lb/hr each (fugitive)	
Mill 5/6 Slurry Tank	E-231	0.0040 lb/hr (fugitive)	TANKS 4.0.9.d
Filter Press 4S	E-71	0.75 lb/hr (fugitive)	EIIP Volume II, Chapter 8 surface evaporation, gas sweep and material loading
Screens 29, 30, 31	E-66a, b, c	0.021 lb/hr each (fugitive)	EIIP Volume II, Chapter 8, Methods for Estimating Air Emissions from Paint, Ink, and Other Coating Manufacturing Facilities (surface evaporation emission model)

Table 9 Unit U-14: Aluminum Paste Dryers

Equipment	Emission Point	VOC Emission Factor	Determination Method
Vacuum Dryers #2, #3	E-82, E-84	0.0 lb/hr	All VOC emissions are discharged out the vacuum pumps
Condenser/Vacuum Pump Nos. 2, 3	E-83, E-85	2.2 lb/hr (uncontrolled) 0.12 lb/hr (controlled)	**August 2006** Stack Test of E-83 for uncontrolled emission factor; **July 2013** Stack Test of E-83 for controlled emission factor
Dryer 2/3 Holding Tank	E-232	0.000071 lb/hr	TANKS 4.0.9.d

Table 10 Unit U-15: Mixers

Equipment	Emission Point	VOC Emission Factor	Determination Method
Mixer 1 through Mixer 9	E-129 through E-137	0.0015 lb/hr (uncontrolled) 0.0001 lb/hr (controlled)	**July 2013** Stack Test of Mixer 2 for both controlled and uncontrolled emission factors

Table 11 Unit U-16: AST (Aboveground Storage Tank) Farm

Equipment	Emission Point	VOC Emission Factor	Determination Method
AST 1 – 4; 6 – 11	E-89 - E-94, E-166 – E-169	0.021 lb/hr	TANKS 4.0.9.d
AST 5	E-107	0.0033 lb/hr	

Table 12 Unit U-17: Mineral Spirit Stills

Equipment	Emission Point	VOC Emission Factor	Determination Method
Stills (2 & 3)	E-96, E-97	All VOC emissions from E-96 & E-97 are discharged out the Vacuum Pump (E-99)	AP-42 Chapter 4.7 Waste Solvent Reclamation for uncontrolled emission factors; **July 2013** Stack Test for controlled emission factor
Still 2-3 Feed Tank	E-98	0.14 lb/hr (fugitive)	EIIP Volume II, Chapter 8, Surface Evaporation Emission Model
Vacuum Pump (Still 2 – 3)	E-99	3.79 lb/hr (uncontrolled) 0.31 lb/hr (controlled)	AP-42 Chapter 4.7 Waste Solvent Reclamation for uncontrolled emission factors; **July 2013** Stack Test for controlled emission factor
Sludge Accumulator Tank	E-100	0.0056 lb/hr (uncontrolled) 0.00046 lb/hr (controlled)	TANKS 4.0.9d for uncontrolled emission factors; **July 2013** Stack Test for controlled emission factors
Miscellaneous Tank (T-74)	E-170	0.0084 lb/hr (uncontrolled) 0.00070 lb/hr (controlled)	
Still Settling Tanks (T-104 & T-105)	E-233 & E-234	0.012 lb/hr (uncontrolled) 0.00098 lb/hr (controlled)	
Feed Tanks (Still 5 & 6)	E-235 & E-239	0.0090 lb/hr (uncontrolled) 0.00075 lb/hr (controlled)	
Cooling & Condensate Tanks and OWSs (Still 5 & 6)	E-236, E-237, E-238; E-241, E-242, E-243	0.0082 lb/hr (uncontrolled) 0.00068 lb/hr (controlled)	

Equipment	Emission Point	VOC Emission Factor	Determination Method
Vacuum Pumps (Still 5 & 6)	E-210 & E-240	0.62 lb/hr (uncontrolled) 0.051 lb/hr (controlled)	EPA Document EPA-450/2-78-029, "Control of Volatile Organic Emissions from Manufacture of Synthesized Pharmaceutical Products" for uncontrolled emission factors; **July 2013** Stack Test for controlled emission factors

Table 13 Unit U-18: Parts Washers

Equipment	Emission Point	VOC Emission Factor	Determination Method
Parts washers with secondary reservoir	E-172, E-173,	0.0042 lb/hr (fugitive)	EIIP Volume II, Chapter 8.4, Emission Model for Surface Evaporation, Equation 8.4-22
Parts washers without secondary reservoir	E-245	0.20 lb/hr (fugitive)	

Table 14 Unit U-22: New Paste Process

Equipment	Emission Point	VOC Emission Factor	Determination Method
Tank RW1A	E-62b	0.0059 lb/hr (uncontrolled) 0.00049 lb/hr (controlled)	TANKS 4.0.9d for uncontrolled emission factors; July 2013 Stack Test for controlled emission factors
Filtrate Tanks	E-179a-h	0.029 lb/hr each (uncontrolled) 0.019 lb/hr each (controlled)	
Vapor Recovery Condensate Tank	E-270	0.00012 lb/hr (fugitive)	
Decanter Tanks; B06, B07, B08	E-246, E-247, E-248	0.00023 lb/hr (uncontrolled) 0.000019 lb/hr (controlled)	
Ball Mills 7 through 10	E-111, E-112, E-113, E-114	0.42 lb/hr (uncontrolled) 0.035 lb/hr (controlled)	**July 2013** Stack Test of Ball Mill 7 for both controlled and uncontrolled emission factors
Ball Mills 11, 12	E-115, E-178	0.74 lb/hr (uncontrolled) 0.061 lb/hr (controlled)	**July 2013** Stack Test of Ball Mill 12 for both controlled and uncontrolled emission factors
24 Vibratory Screen	E-116a –E-116x	0.0016 lb/hr each (uncontrolled) 0.00013 lb/hr each (controlled)	EIIP Volume II, Chapter 8.4, Emission Model for Surface Evaporation, Equation 8.4-22; July 2013 Stack Test for controlled emission factors
Portable Rework Hopper	E-181	0.19 lb/hr (fugitive)	

Equipment	Emission Point	VOC Emission Factor	Determination Method
30 Slurry Tanks	E-117a – E-117dd	0.094 lb/hr each (uncontrolled) 0.0075 lb/hr each (controlled)	AP-42, Chapter 5.2 "Transportation And Marketing Of Petroleum Liquids" equation for loading and unloading of petroleum liquids; July 2013 Stack Test for controlled emission factors
10 Slurry Tanks	E-118a – E-118j		
Filter Presses 1-6 & 10	E-119a – E-119g	0.45 lb/hr each (uncontrolled) 0.037 lb/hr each (controlled) 0.034 lb/hr each (fugitive)	EIIP Volume II, Chapter 8 surface evaporation, gas sweep and material loading; July 2013 Stack Test for controlled emission factors
Filter Presses 7 & 8	E-120a, E-120b	0.21 lb/hr each (uncontrolled) 0.0165 lb/hr each (controlled) 0.016 lb/hr each (fugitive)	
Filter Presses 12 – 14	E-121a, E-121b, E-121c	0.59 lb/hr each (uncontrolled) 0.05 lb/hr each (controlled) 0.046 lb/hr each (fugitive)	
Decanter 1 (Centrifuge)	E-67	0.0046 lb/hr (fugitive)	EIIP Volume II, Chapter 8, Gas Sweep of Purge Emission Model
Decanter 2 (Centrifuge)	E-180	0.0050 lb/hr (fugitive)	

Table 15 Unit U-23: Solvent Exchangers

Equipment	Emission Point	VOC Emission Factor	Determination Method
Additive Tank 1	E-123	0.00037 lb/hr (uncontrolled) 0.000031 lb/hr (controlled)	TANKS 4.0.9d for uncontrolled emission factors; **July 2013** Stack Test of E-185 for controlled emission factors
Solvent Exchanger (SE) Condensate Tanks 1 & 2	E-254, E-255		
Additive Tank 2 (R01)	E-125	0.00071 lb/hr (uncontrolled) 0.000059 lb/hr (controlled)	
Additive Tank 3 (R02)	E-126		
Solvent Exchanger Vacuum Pump 1	E-127	0.114 lb/hr (uncontrolled) 0.01 lb/hr (controlled)	**July 2013** Stack Test of E-185 for controlled and uncontrolled emission factors
Solvent Exchanger Vacuum Pump 2	E-185		
Solvent Exchanger Thermal Oil Tanks 1 & 2	E-252, E-253	0.00029 lb/hr each (fugitive)	TANKS 4.0.9d for uncontrolled emission factors; **July 2013** Stack Test of E-185 for controlled emission factors
Additive Tank 4 (SE2)	E-184	0.00049 lb/hr (uncontrolled) 0.000041 lb/hr (controlled)	

Table 16 Unit U-24: Mills 13/14

Equipment	Emission Point	VOC Emission Factor	Determination Method
Ball Mill 13	E-186	0.11 lb/hr (uncontrolled) 0.009 lb/hr (controlled)	**July 2013** Stack Test of U-22 Ball Mill 7 (E-111) and prorated based upon capacity for both controlled and uncontrolled emission factors
Ball Mill 14	E-187	0.32 lb/hr (uncontrolled) 0.027 lb/hr (controlled)	
Vibratory Screens 21 & 22	E-188a & E-188b	0.0016 lb/hr each (uncontrolled) 0.000135 lb/hr (controlled)	EIIP Volume II, Chapter 8, Emission Model for Surface Evaporation, Equation 8.4-22 for uncontrolled emission factor; **July 2013** Stack Test for controlled emission factor
4 Slurry Tanks (T-54, T-55, T-56, T-57)	E-189a through E-189d	0.0018 lb/hr each (uncontrolled) 0.00015 lb/hr each (controlled)	TANKS 4.0.9d for uncontrolled emission factors; **July 2013** Stack Test for controlled emission factors
Mill 14 Recirculation Tank	E-190	0.0024 lb/hr (uncontrolled) 0.00020 lb/hr (controlled)	
Mill 16 Filter Press	E-192	0.23 lb/hr (uncontrolled) 0.019 lb/hr (controlled) 0.02 lb/hr (fugitive)	EIIP Volume II, Chapter 8 surface evaporation, gas sweep and material loading for uncontrolled emission factors; **July 2013** Stack Test for controlled emission factors
Mill 15 Filter Press	E-193	0.10 lb/hr (uncontrolled) 0.0083 lb/hr (controlled) 0.01 lb/hr (fugitive)	
Decanter Tanks; B06, B07, B08	E-246, E-247, E-248	0.00023 lb/hr (fugitive)	TANKS 4.0.9d
R&D Mixer	E-272	0.048 lb/hr (fugitive)	EIIP Volume II, Chapter 8, Emission Model for Surface Evaporation, Equation 8.4-22

Table 17 Unit U-25: Zinc Mills

Equipment	Emission Point	VOC Emission Factor	Determination Method
Ball Mill 20	E-194	0.55 lb/hr (uncontrolled) 0.05 lb/hr (controlled)	**July 2013** Stack Test of U-22 Ball Mill 12 (E-178) and prorated based upon capacity for both controlled and uncontrolled emission factors
2 Vibratory Screens	E-195a & E-195b	0.0016 lb/hr each (uncontrolled) 0.00014 lb/hr each (controlled)	EIIP Volume II, Chapter 8, Emission Model for Surface Evaporation, Equation 8.4-22 for uncontrolled emission factors; **July 2013** Stack for controlled emission factors

Equipment	Emission Point	VOC Emission Factor	Determination Method
Mineral Spirits Supply Tank (T-64)	E-196	0.0030 lb/hr (uncontrolled) 0.00025 lb/hr (controlled)	TANKS 4.0.9d for uncontrolled emission factors; **July 2013** Stack Test for controlled emission factors
2 Slurry Tanks (T-67, T-70)	E-197a & E-197b	0.029 lb/hr each (uncontrolled) 0.0024 lb/hr each (controlled)	AP-42, Section 5.2 equation for loading and unloading of petroleum liquids for uncontrolled emission factors; **July 2013** Stack Test for controlled emission factors
1 Slurry Tank (T-66)	E-198		
Filter Press	E-199	0.42 lb/hr (uncontrolled) 0.035 lb/hr (controlled) 0.030 lb/hr (fugitive)	EIIP Volume II, Chapter 8 surface evaporation, gas sweep and material loading for uncontrolled emission factors; **July 2013** Stack Test for controlled emission factors
Mixer 20	E-200	0.0015 lb/hr (uncontrolled) 0.00012 lb/hr (controlled)	**July 2013** Stack Test of U-15 Mixer 2 (E-130) for both controlled and uncontrolled emission factors
Filtrate Tank (T-69)	E-251	0.00089 lb/hr (uncontrolled) 0.000074 lb/hr (controlled)	TANKS 4.0.9d for uncontrolled emission factors; **July 2013** Stack Test controlled emission factors
Zinc Mill Condensate Tank (T-65)	E-249	0.00010 lb/hr (uncontrolled) 0.0000083 lb/hr (controlled)	
Filtrate Tank (T-68)	E-250		

Table 18 Unit U-27: Solvent Wash

Equipment	Emission Point	VOC Emission Factor	Determination Method
B03 Tank	E-223	0.00071 lb/hr (uncontrolled) 0.000059 lb/hr (controlled)	TANKS 4.0.9d for uncontrolled emission factors; **July 2013** Stack Test for controlled emission factor
B04 Tank	E-224		
Filter Press 1	E-225	0.44 lb/hr (uncontrolled) 0.037 lb/hr (controlled) 0.030 lb/hr (fugitive)	EIIP Volume II, Chapter 8 surface evaporation, gas sweep and material loading for uncontrolled factors; **July 2013** Stack Test for controlled emission factor
Filter Press 2	E-226	0.33 lb/hr (uncontrolled) 0.027 lb/hr (controlled) 0.020 lb/hr (fugitive)	
B05 Tank	E-227	0.00037 lb/hr (uncontrolled) 0.000031 lb/hr (controlled)	TANKS 4.0.9d for uncontrolled emission factors; **July 2013** Stack Test for controlled emission factor
B06 Tank	E-228		

Table 19 Unit U-28: Cooling Tower

Equipment	Emission Point	PM Emission Factor	Determination Method
Cooling Tower	E-269	0.019 lb/1,000 gal OR 1.21 lb/hr (fugitive)	AP-42, Chapter 13.4: Wet Cooling Towers

Appendix B – VOC Emission Limit Tables

1. VOC emission points which are not included in a PSD avoidance limit or considered BACT for Regulation 7.25 ("Bucket"). The potential to emit for these points is less than 5 tons per year.

Emission Unit	Equipment IDs	Equipment ID Description	Control Device	7.25 VOC BACT Avoidance Emission Limit
U-13	E-61a, b	Two 1,000 gal Slurry Tanks	NA	5 tons per 12 consecutive month
U-14	E-232	Dryer 2/3 Holding Tank	NA	
U-15	E-135	Mixer 7	C-9	
U-17	E-100	Sludge Accumulator Tank	C-9	
U-23	E-254	SE 1 Condensate Tank	C-9	
	E-255	SE 2 Condensate Tank	C-9	
U-27	E-227	B05 Tank	C-9	
	E-228	B06 Tank	C-9	

2. The District considered the applications for the Mills that were submitted on May 10, 2004 and June 7, 2004 to be one project. The potential controlled VOC emissions were calculated to less than 1.0 ton per 12 consecutive month period for each Ball Mill. The District has approved the company submitted PTE showing that the equipment in Units 24 and 25 no longer have the potential to exceed the significant levels for VOCs under PSD/Nonattainment NSR. The PTE is based on performance test results, therefore, the District has removed the PSD/Nonattainment NSR limits.

Emission Unit	Equipment ID	Equipment ID Description	Control Device	7.25 VOC Emission Limits Considered BACT
U-24	E-186	Ball Mill 13	C-9	1 ton per 12 consecutive month
	E-187	Ball Mill 14	C-9	1 ton per 12 consecutive month
U-25	E-194	Ball Mill 20	C-9	1 ton per 12 consecutive month
U-24	E-188 a&b	2 Vibratory Screens	C-9	1 ton per 12 consecutive month
	E-189 a-d	4 Slurry Tanks (T-54, T-55, T-56, T-57)	C-9	
	E-190	Mill 14 Recirculation Tank (T-57A)	C-9	
	E-192	Mill 14 Filter Press	C-9	
	E-193	Mill 13 Filter Press	C-9	
U-25	E-195 a &b	2 Vibratory Screens	C-9	
	E-197 a&b	2 Slurry Tanks (T-67, T-70)	C-9	
	E-198	1 Slurry Tank (T-66)	C-9	
	E-199	Filter Press	C-9	
	E-200	Zinc Blender	C-9	
	E-249	Zinc Mill Condensate Tank	C-9	
	E-250	Filtrate Tank (T-68)	C-9	
	E-251	Filtrate Tank (T-69)	C-9	

3. The source accepted a less than 40 ton per year VOC emission limit for an entire project in 2000 (which is below the significant level) in order to avoid Regulation 2.05, Prevention of Significant Deterioration of Air Quality; therefore, a netting analysis was not required.

Emission Unit	Equipment IDs	Equipment ID Description	Control Device	PSD Avoidance Limits and 7.25 VOC Emission Limits Considered BACT
U-13	E-231	Tank T-73 (Mill 5/6 Slurry Tank)	NA	40 tons per 12 consecutive months
U-15	E-129	Mixer 1	C-9	
	E-130	Mixer 2	C-9	
	E-131	Mixer 3	C-9	
	E-132	Mixer 4	C-9	
	E-134	Mixer 6	C-9	
	E-136	Mixer 8	C-9	
	E-137	Mixer 9	C-9	
U-22	E-111	Ball Mill 7	C-9	
	E-112	Ball Mill 8	C-9	
	E-113	Ball Mill 9	C-9	
	E-114	Ball Mill 10	C-9	
	E-115	Ball Mill 11	C-9	
	E-116 a-x	24 Screens	C-9	
	E-117 a-dd	30 Slurry Tanks	C-9	
	E-118 a-j	10 Slurry Tanks	C-9	
	E-178	Ball Mill 12	C-9	
	E-119 a-g	Filter Presses 1-6, 10	C-9	
	E-120 a&b	Filter Presses 7 and 8	C-9	
	E-121 a-c	Filter Presses 12 - 14	C-9	
	E-270	Vapor Recovery Condensate Tank	NA	
	E-179 a-h	8 Filtrate Tanks (T-28, T-29, T-30, T-34, T-51, T-52, T-53, T-71)	C-9	
	E-180	Centrifuge	NA	
	E-181	Rework Hopper	NA	
U-23	E-123	Additive Tank 1	C-9	
	E-125	Additive Tank 2 (R01)	C-9	
	E-126	Additive Tank 3 (R02)	C-9	
	E-127	Solvent Exchanger 1 Vacuum Pump	C-9	
	E-252	SE 1 Thermal Tank	NA	
	E-253	SE 2 Thermal Tank	NA	

4. The following table lists the emission points which have 7.25 VOC Emission Limit Considered BACT for the equipment:

Emission Unit	Equipment ID	Equipment ID Description	Control Device	7.25 VOC Emission Limit Considered BACT for this equipment
U-13	E-71	*Filter Press 4S	NA	3.29 tons per 12 consecutive month
U-17	E-170	Miscellaneous Tank	C-9	3.794 tons per 12 consecutive month Considered BACT for this equipment
	E-210	Still 5 with condenser and Vacuum Pump	C-9	
	E-233	T-104 Still Settling Tank	C-9	
	E-234	T-105 Still Settling Tank	C-9	
	E-235	Still 5 Feed Tank	C-9	
	E-236	Still 5 Cooling Tank	C-9	
	E-237	Still 5 Condensate Tank	C-9	
	E-238	Still 5 OWS	C-9	
	E-239	Still 6 Feed Tank	C-9	
	E-240	Still 6 with condenser and Vacuum Pump	C-9	
	E-241	Still 6 Cooling Tank	C-9	
	E-242	Still 6 Condensate Tank	C-9	
	E-243	Still 6 OWS	C-9	
U-23	E-184	Additive Tank 4	C-9	7.01 ton per 12 consecutive month
	E-185	**Solvent Exchanger 2 Vacuum Pump	C-9	
U-27	E-225	Filter Press 1	C-9	1 ton per 12 consecutive month
	E-226	Filter Press 2	C-9	
*Was part of a larger project but now is the only piece left. **E-185 includes integrated condenser and meets standards without additional control C-9.				

5. This equipment is controlled by the condenser system (C-9) but does not have PSD avoidance or Regulation 7.25 VOC emission limits because the tanks are subject to Regulation 7.12.

Emission Unit	Equipment IDs	Equipment ID Description	Control Device	PSD Avoidance Limit and 7.25 VOC Emission Limit
U-22	E-246	Decanter Tank B06	C-9	None
	E-247	Decanter Tank B07	C-9	None
	E-248	Decanter Tank B08	C-9	None
U-25	E-196	Mineral Spirits Supply Tank (T-64)	C-9	None
U-27	E-223	Non Distillable Wash Tank (B03)	C-9	None
	E-224	Distillable Wash Tank (B04)	C-9	None

6. Regulation 6.24 equipment

Emission Unit	Equipment IDs	Equipment ID Description	Control Device	VOC Emission Limit Per Piece of Equipment
U-13	E-56	Ball Mill 5	C-9	Class III - 3000 lb/day; 450 lb/hr Class II - 40 lb/day; 8 lb/hr
	E-57	Ball Mill 6	C-9	
	E-62a	1,300 gal Slurry Tank	NA	
	E-66a, b, c	Three Screens	NA	
	E-64a, b	Screen Pots	NA	
	E-65a, b	Screen Pots	NA	
U-14	E-82, 83	Dryer 2	NA	
	E-84, 85	Dryer 3	NA	
U-15	E-133	Mixer 5	C-9	
U-17	E-98	Still 2-3 Feed Tank	NA	
	E-99	Still 2-3 Vacuum Pump	C-9	
U-22	E-62b	Slurry Tank RW1A	C-9	
	E-67	Decanter 1	NA	

Appendix C – Control Device Efficiencies and Determination Methods[1,2]

1. Emission Points controlled by Cyclones

Unit ID	Emission Point ID	Emission Point Description	Control ID	Efficiency	Determination Method
U-2	E-3	Atomization Furnace	C-E-5	87%	Option 3
			C-E-7	89%	Option 3
U-3	E-9	Rail Car Loading	C-E-9	85%	Option 1
	E-8	Buhler A Conveyor Pod	C-E-8	85%	Option 1
U-4	E-11	Large Powder Storage Tank 1	C-E-11	85%	Option 1
	E-13	Tote/Drum Fill Station #1			
	E-12	Large Powder Storage Tank 2	C-E-12	85%	Option 1
	E-15	Tote/Drum Fill Station #2			
U-6	E-25	15,000 lb Powder Storage Tank	C-E-25	85%	Option 1
	E-26b, c, d	Two holding tanks, Drum Loading			
	E-128	30,000 lb Powder Storage Tank	C-E-128	85%	Option 1
	E-128b1	Buhler B Conveyor Pod			

2. Emission Points controlled by Metal Mesh Filters

Unit ID	Emission Point ID	Emission Point Description	Control ID	Efficiency	Determination Method
U-3	E-229	Docking/Transfer Station	C-F-005	87%	Option 3
	E-141	Air Slide Conveyor Pod			
	E-9	Rail Car Loading	C-F-006	87%	Option 3
	E-8	Buhler A Conveyor Pod	C-F-007	87%	Option 3
U-4	E-11	Large Powder Storage Tank 1	C-F-008	87%	Option 3
	E-13	Tote/Drum Fill Station #1			
	E-12	Large Powder Storage Tank 2	C-F-009	87%	Option 3
	E-15	Tote/Drum Fill Station #2			
U-6	E-25	15,000 lb Powder Storage Tank	C-F-010	87%	Option 3
	E-26b, c, d	Two holding tanks, Drum Loading			
	E-128	30,000 lb Powder Storage Tank	C-F-011	87%	Option 3
	E-128b1	Buhler B Conveyor Pod			
U-8	E-150	Flake 100 Drum/Tote Unloading	C-E-153	99.32%	Option 3
	E-152	Flake 100 Staging Vessel			
	E-154	Flake 100 Rescreener	C-E-155	99.32%	Option 3
	E-156	Flake 100 Drum Loading	C-E-157	99.32%	Option 3
	E-158	Powder 200 Drum/Tote Unloading	C-E-161	99.32%	Option 3
	E-160	Powder 200 Staging Vessel			
	E-162	Powder 200 Rescreener	C-E-163	99.32%	Option 3
	E-164	Powder 200 Drum Loading	C-E-165	99.32%	Option 3

3. Emission Points controlled by Condensers

Unit ID	Emission Point ID	Emission Point Description	Control ID	Efficiency	Determination Method
U-14	E-82	Vacuum Dryer #2	C-E-83	95%	Option 3
	E-84	Vacuum Dryer #3	C-E-85		

4. SVR System (Dual Stage Condenser with Liquid/Vapor Separator)

Control ID	Description	Performance Indicator	Range	Efficiency	Determination Method
C-9	SVR System (Dual Stage Condenser with Liquid/Vapor Separator)	Temperature			Option 3
		(Second Stage)	< 26 °F	91.7%	
		(Second Stage)	26 °F - 30 °F	89%	
		(Only One Stage Operations)	30 °F - 35 °F	75%	
		(No Stage Operation)	> 35 °F	0%	

Note:

1. Options for control efficiency determination:
   Option 1: Use District pre-approved control efficiency
   Option 2: Submit a signature guarantee from the control device manufacture stating the control device efficiency
   Option 3: Performed a stack test. See Plant-wide Specific Conditions S4.a for general testing requirements.

2. Until the District receives a signature guarantee from the control device manufacturer stating the control device efficiency is higher (Option 2), or an approved stack test (Option 3), the pre-approved efficiency (Option 1) will be used in all calculations to demonstrate compliance with applicable standards and calculations for emission inventory.

5. Emission Points controlled by the SVR System (Dual Stage Condenser with Liquid/Vapor Separator) [C-9]

Emission Unit	Emission Point ID	Emission Point Description	Unit Description
U-13	E-56	Ball Mill 5	Aluminum Paste Process
U-13	E-57	Ball Mill 6	
U-15	E-129	Mixer 1	Mixers
U-15	E-130	Mixer 2	
U-15	E-131	Mixer 3	
U-15	E-132	Mixer 4	
U-15	E-133	Mixer 5	
U-15	E-134	Mixer 6	
U-15	E-135	Mixer 7	
U-15	E-136	Mixer 8	

Emission Unit	Emission Point ID	Emission Point Description	Unit Description
U-15	E-137	Mixer 9	
U-17	E-99 (E-96, E-97)	Vacuum Pump (Stills 2 & 3)	Stills
U-17	E-100	Sludge Accumulator Tank	
U-17	E-170	Miscellaneous Tank (T-74)	
U-17	E-233	T-104 Still Settling Tank	
U-17	E-234	T-105 Still Settling Tank	
U-17	E-235	Still 5 Feed Tank	
U-17	E-236	Still 5 Cooling Tank	
U-17	E-237	Still 5 Condensate Tank	
U-17	E-238	Still 5 OWS	
U-17	E-210	Still #5 w/Condenser and Vacuum Pump	
U-17	E-239	Still 6 Feed Tank	
U-17	E-241	Still 6 Cooling Tank	
U-17	E-242	Still 6 Condensate Tank	
U-17	E-243	Still 6 OWS	
U-17	E-240	Still #6 w/Condenser and Vacuum Pump	
U-22	E-62b	Tank RW1A	New Paste
U-22	E-111	Ball Mill 7	
U-22	E-112	Ball Mill 8	
U-22	E-113	Ball Mill 9	
U-22	E-114	Ball Mill 10	
U-22	E-115	Ball Mill 11	
U-22	E-178	Ball Mill 12	
U-22	E-116a – E-116x	24 Vibratory Screens	
U-22	E-117a – E-117dd	30 2,200-gallon Tanks	
U-22	E-118a – E-118j	5 2,500-gallon tanks 5 2,200-gallon tanks	
U-22	E-119a – E-119g	7 Filter Presses	
U-22	E-120a, b	2 Filter Presses	
U-22	E-121a, b, c	3 Filter Presses	
U-22	E-179a – E-179h	8 Filtrate Tanks	
U-22	E-246	B06 Decanter Tank	
U-22	E-247	B07 Decanter Tank	
U-22	E-248	B08 Decanter Tank	
U-23	E-123	Additive Tank #1	Solvent Exchangers
U-23	E-125	Additive Tank #2	
U-23	E-126	Additive Tank #3	
U-23	E-127	Vacuum Pump No. 1	
U-23	E-254	SE 1 Condensate Tank	
U-23	E-184	Additive Tank #4	
U-23	E-185	Vacuum Pump No. 2	
U-23	E-255	SE 2 Condensate Tank	

Emission Unit	Emission Point ID	Emission Point Description	Unit Description
U-24	E-186	Ball Mill 13	Mills 13/14
U-24	E-187	Ball Mill 14	
U-24	E-188a, b	2 Vibratory Screeners	
U-24	E-189a – E-189d	4 Slurry Tanks	
U-24	E-190	Mill 14 Recirculation Tank	
U-24	E-192	Filter Press 16	
U-24	E-193	Filter Press 15	
U-25	E-194	Ball Mill 20	Zinc Mill
U-25	E-195a, b	2 Vibratory Screeners	
U-25	E-196	Tank T-64	
U-25	E-197a, b	Tanks T-67, T-70	
U-25	E-198	Tank T-66	
U-25	E-249	Zinc Mill Condensate Tank	
U-25	E-250	Filtrate Tank (T-68)	
U-25	E-251	T-69 Tank	
U-25	E-199	Filter Press 20	
U-25	E-200	Mixer 20	
U-27	E-223	B03 Tank	Solvent Wash
U-27	E-224	B04 Tank	
U-27	E-225	Filter Press21	
U-27	E-226	Filter Press 22	
U-27	E-227	B05 Tank	
U-27	E-228	B06 Tank	

Appendix D – PM Emission Points Requiring Testing

Emission Unit	Emission Point	Emission Point Description	Control Device	Most Recent Stack Test
U-2	E-3	Atomization Furnace	C-E-5, C-E-7	**April 2012** Test on the inlet and outlet of Multicyclones C-E-5 and C-E-7 to determine control efficiency and emission rates from E-5 and E-7
U-3	E-8	Buhler A Conveyor Pod	C-E-8, C-F-007	**April 2012** Test on the inlet and outlet of Metal Mesh Filter C-F-007 (controlling Emission Point E-8) to determine control efficiency of similar filters and the emission rate (controlled) E-9 emission rate is prorated from E-8, based upon capacity **October 2008** Test on the outlet of Emission Point E-8 to determine the uncontrolled emission rate E-9 emission rate is prorated from E-8, based upon capacity
U-3	E-9	Rail Car Loading	C-E-9, C-F-006	
U-4	E-141 E-229	Air Slide Conveyor Pod Docking/Transfer Station	C-F-005	
U-4	E-11	Large Powder Storage Tank 1	C-E-11, C-F-008	**October 2008** Test on the outlet of Emission Point E-128 (U-6) to determine the emission rate E-11, E-12, and E-25 emission rates are prorated from E-128, based upon capacity
U-4	E-12	Large Powder Storage Tank 2	C-E-12, C-F-009	
U-6	E-25	15,000 lb Tank	C-E-25, C-F-010	
U-6	E-128	30,000 lb Tank	C-E-128, C-F-011	
U-8	E-150 through E-164	Flake and Powder Loading	C-E-153, C-E-155, C-E-157, C-E-161, C-E-163, C-E-165	**August 2006** Test on the inlet and outlet of Metal Mesh Filter (C-E-153) controlling the Flake 100 Staging Vessel (E-152) to determine control efficiency of similar filters and the emission rate

Appendix E – VOC Emission Points Requiring Testing

Emission Unit	Emission Point	Emission Point Description	Control Device	Most Recent Stack Test
U-13	E-56, E-57	Ball Mills 5 & 6	C-9	**July 2013** Test of Ball Mill 5 (E-56)
U-14	E-82, E-84	Dryers Nos. 2, 3	C-E-83 & C-E-85-	**July 2013** Test of Condenser/ Vacuum Pump No. 2 [‘Dryer 2’] (E-83)
U-15	E-129 through E-137	Mixer 1 through Mixer 9	C-9	**July 2013** Test of Mixer 2 (E-130)
U-17	E-99 (E-96, E-97)	Vacuum Pump (Stills 2 & 3)	C-9	No record of testing
U-22	E-111, E-112, E-113, E-114,	Ball Mills 7 through 10	C-9	**July 2013** Test of Ball Mill 7 (E-111)
U-22	E-115, E-178	Ball Mills 11, 12	C-9	**July 2013** Test of Ball Mill 12 (E-178)
U-23	E-127, E-185	Solvent Exchanger Vacuum Pumps 1 & 2	C-9	**July 2013** Test of Solvent Exchanger Vacuum Pump 2 (E-185)
U-24	E-186, E-187	Ball Mills 13, 14	C-9	Prorated based upon capacity from **July 2013** Test of U-22 Ball Mill 7 (E-111)
U-25	E-194	Ball Mill 20	C-9	Prorated based upon capacity from **July 2013** Test of U-22 Ball Mill 12 (E-178)
U-25	E-200	Mixer 20	C-9	Prorated based upon capacity from **July 2013** Test of U-15 Mixer 2 (E-130)

Appendix F – Protocol Checklist for Performance Test

A completed protocol should include the following information:

- ☐ 1. Facility name, location, and ID #;
- ☐ 2. Responsible Official and environmental contact names;
- ☐ 3. Permit numbers which are requiring the test to be conducted;
- ☐ 4. Test methods to be used (i.e. EPA Method 1, 2, 3, 4, and 5);
- ☐ 5. Alternative test methods or description of modifications to the test methods to be used;
- ☐ 6. Purpose of the test including equipment, and pollutant to be tested; the purpose may be described in the permit which requires the test to be conducted or may be to show compliance with a federal regulation or emission standard;
- ☐ 7. Tentative test dates (these may change but the District will need final notice at least 10 days in advance of the actual test dates in order to arrange for observation);
- ☐ 8. Maximum rated production capacity of the system;
- ☐ 9. Production-rate goal planned during the performance test for demonstration of compliance (if appropriate based on limits);
- ☐ 10.Method to be used for determining rate of production during the performance test;
- ☐ 11. Method to be used for determining rate of production during subsequent operations of the process equipment to demonstrate compliance;
- ☐ 12. Description of normal operation cycles;
- ☐ 13. Discussion of operating conditions that tend to cause worse case emissions; it is especially important to clarify this if worst case emissions do not come from the maximum production rate;
- ☐ 14. Process flow diagram;
- ☐ 15. List the type and manufacturer of the control equipment if any;
- ☐ 16. List the control equipment (baghouse, scrubber, condenser, etc.) parameter to be monitored and recorded during the performance test; note that this date will be used to ensure representative operation during subsequent operations. These parameters can include pressure drops, flow rates, pH, and temperature. The values achieved during the test may be required during subsequent operations to describe what pressure drops, etcetera, are indicative of good operating performance; and
- ☐ 17. How quality assurance and accuracy of the data will be maintained, including;
  - Sample identification and chain-of-custody procedures;
  - Are audit samples required for this test Method (EPA contact number for audit samples 919-541-1062) if yes then please make samples available to the District for observation during the stack test;
  - Audit sample provider;
  - Number of audit samples to be used:
- ☐ 18. Pipe, duct, stack, or flue diameter to be tested;
- ☐ 19. Distances from the testing sample ports to the nearest upstream and downstream flow disturbances such as bends, valves, constrictions, expansions, and exit points for outlet and additionally for inlet;
- ☐ 20. Determine number of traverse points to be tested for outlet and additionally for inlet if required using Appendix A-1 to 40 CFR Part 60;
  - Method 1 if stack is >12”
  - Method 1a if stack is between 4” and 12”
  - Alternate method of determination for <4”
  - If a sample location at least two stack or duct diameters downstream and half a diameter upstream from any flow disturbance is not available then an alternative procedure is available for determining the acceptability of a measurement location. This procedure described in Section 11.5 allows for the determination of gas flow angles at the sampling points and comparison of the measured results with acceptability criteria.
- ☐ 21. The Stack Test Review fee shall be submitted with each stack test protocol.