OhioEPA

State of Ohio Environmental Protection Agency

Street Address:
Lazarus Gov. Center
122 S. Front Street
Columbus, OH 43215

**TELE:** (614) 644-3020 **FAX:** (614) 644-2329

Mailing Address:
Lazarus Gov. Center
P.O. Box 1049
Columbus, OH 43216-1049

05/24/01

**CERTIFIED MAIL**

**RE: Proposed Title V Chapter 3745-77 permit**
02-47-04-0195
HARSHAW CHEMICAL CO. AKA ENGELHARD CORPORATION

Attn: Genevieve Damico AR-18J
United States Enviromental Protection Agency
Region V
77 West Jackson Blvd.
Chicago, IL 60604-3590

Dear Ms. Damico:

The proposed issuance of the Title V permit for HARSHAW CHEMICAL CO. AKA ENGELHARD CORPORATION, has been created in Ohio EPA's State Air Resources System (STARS) on 05/24/01, for review by USEPA. This proposed action is identified in STARS as 3-Title V Proposed Permit T+C covering the facility specific terms and conditions, and Title V Proposed Permit covering the general terms and conditions. This proposed permit will be processed for issuance as a final action after forty-five (45) days from USEPA's receipt of this certified letter if USEPA does not object to the proposed permit. Please contact Mike Ahern, DAPC Permit Management Unit supervisor at (614) 644-3631 by the end of the forty-five (45) day review period if you wish to object to the proposed permit.

Very truly yours,

Thomas G. Rigo

Thomas G. Rigo, Manager
Field Operations and Permit Section
Division of Air Pollution Control

cc: Northeast District Office
Becky Castle, DAPC PMU

State of Ohio Environmental Protection Agency

# PROPOSED TITLE V PERMIT

| Issue Date: | Effective Date: | Expiration Date: |
|---|---|---|

This document constitutes issuance of a Title V permit for Facility ID: 02-47-04-0195 to:
HARSHAW CHEMICAL CO. AKA ENGELHARD CORPORATION
120 PINE STREET
ELYRIA, OH 44035

## Emissions Unit ID (Company ID)/Emissions Unit Activity Description

B006 (#2 BOILER (E-91))
#2 BOILER (E-91)

P002 (CER COLOR BLENDING (E-6))
WEIGHSCALE AND BLENDER IN BLDG. 10

P003 (CER COLOR MILLING (E-7))
MICROPULVASIZER IN BLDG. 10A

P005 (TUNNEL KILN #4 (E-9))
#4 TUNNEL KILN IN BLDG. 10

P006 (COPPER CALCINER (E-10))
ROTARY CALCINER IN BLDG. 26

P009 (ROTARY CALCINER #4 (E-13-1))
GENERAL CATALYST CALCINER #4 IN BLDG. 16

P010 (ROTARY CALCINER #1 (E-14))
GENERAL CATALYST CALCINER # 1 IN BLDG. 31

P018 (COPPER/ALUMINA DRIER (E-22))
WYSSMONT DRIER IN BLDG. 10

P022 (CU/BI CALCINERS (E-26))
CU/BI CALCINERS (E-26)

P024 (GEN CAT REACTION TANKS (E-28))
GEN CAT REACTION TANKS (E-28)

P025 (GEN CAT MIXERS (E-29))
LITTLEFORD MIXERS B-3 AND B-4

P026 (GEN CAT BLENDERS (E-30))
DOUBLE CONE BLENDERS B-1 AND B-2

P028 (GEN CAT EXTRUDERS (E-32))
GEN CAT EXTRUDERS (E-32)

P030 (CER COLOR BLEND AND MILL (E-34))
MIKROPULVERIZER AND CINCINNATUS MIXER IN BLDG. 10A

P031 (CER COLOR BLEND,CRUSH,MILL (E-35))
BLENDERS 1,2; PULVERIZERS M-1 &M-2; CRUSHER IN BLDG. 10A

P050 (MISC TABLET MIX EQUIPT (E-54))
GRANULATORS,CRUSHER BRIQUETTOR

P051 (MISC TABLET MIXING (E-55))
J.H.DAY BLENDERS

P053 (NICKEL TABLET SYSTEM (E-57))
2 DH MILL; RIBBON BLENDER; TABLET MACHINES

P054 (IRON ROOM TABLET (E-58)
IRON ROOM TABLET (E-58

P055 (ZINC TABLET MIX (E-59))
ZINC TABLET MIX (E-59)

P056 (LUNCH ROOM TABLET (E-60))
LUNCH ROOM TABLET (E-60)

P058 (CER COLOR PULVERIZER (E-62))
CER COLOR PULVERIZER (E-62)

P059 (COLOR JETMILL (E-94))
COLOR JETMILL (E-94)

P068 (WOLV DRY AND VERT CALC (E-75))
Wolverine Dryer and Verticle Calciner

P069 (P-K BLENDER (E-76))
#2 PK Blender (Copper on alumina)

P070 (CU/CR STRIKE (E-77))
Copper Chromite Strike Tanks

P077 (P&S DRIER IN HC-11 (E-84))
P & S Dryer in HC-11

P080 (ROTARY CALCINER #5 (E-13))
MISCELLANEOUS CATALYSTS

P083 (SHUTTLE KILN #1 (E-88))
Shuttle kiln #1

P086 (GEN CAT P&S DRYERS #2 & #3)
General Catalyst Dryers

P089 (#2 SHUTTLE KILN (E-92))
#2 Shuttle Kiln

P094 (SPIN FLASH DRIER (E-100))
Spin Flash Dryer

P095 (COPPER CALCINER #2 (E-101))
Copper Calciner # 2, 4.0 MMBtu/hr, indirect-fired

P097 (BLDG 24 WEST TABLETTING )
West Bldg. 24 Tabletting

P098 (BLDG 25 EAST TABLETTING)
East Bldg.25 Tabletting

P099 (PK BLENDER #2 (E-103))
65 Cubic Foot PK Blender

P100 (TUNNEL KILN #2 (E-8))
Natural gas fired tunnel kiln in Bldg. 10, 2.8 MMBtu/hr, direct-fired

P101 (TUNNEL KILN #3 (E-8))
Natural gas fired tunnel kiln in Bldg. 10, 2.8 MMBtu/hr, direct-fired

P102 (ROTARY CALCINER #2)
GENERAL CATALYST CALCINER # 2 IN BLDG. 31

P103 (ROTARY CALCINER #3)
GENERAL CATALYST CALCINER # 3 IN BLDG. 31

P104 (IRON CATALYST MIXING (E-104))
IRON CATALYST MIXING

You will be contacted approximately eighteen (18) months prior to the expiration date regarding the renewal of this permit. If you are not contacted, please contact the appropriate Ohio EPA District Office or local air agency listed below. This permit and the authorization to operate the air contaminant sources (emissions units) at this facility shall expire at midnight on the expiration date shown above. If a renewal permit is not issued prior to the expiration date, the permittee may continue to operate pursuant to OAC rule 3745-77-04(A) and in accordance with the terms of this permit beyond the expiration date, provided that a complete renewal application is submitted no earlier than eighteen (18) months and no later than one-hundred eighty (180) days prior to the expiration date.

Described below is the current Ohio EPA District Office or local air agency that is responsible for processing and administering your Title V permit:

Northeast District Office
2110 East Aurora Road
Twinsburg, OH  44087
(330) 425-9171

OHIO ENVIRONMENTAL PROTECTION AGENCY

_____

Christopher Jones
Director

## PART I - GENERAL TERMS AND CONDITIONS

### A. State and Federally Enforceable Section

### 1. Monitoring and Related Recordkeeping and Reporting Requirements

a. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall maintain records that include the following, where applicable, for any required monitoring under this permit:

i. The date, place (as defined in the permit), and time of sampling or measurements.
ii. The date(s) analyses were performed.
iii. The company or entity that performed the analyses.
iv. The analytical techniques or methods used.
v. The results of such analyses.
vi. The operating conditions existing at the time of sampling or measurement.

b. Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.

c. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall submit required reports in the following manner:

i. Reports of any required monitoring and/or recordkeeping information shall be submitted to the appropriate Ohio EPA District Office or local air agency.
ii. Quarterly written reports of (i) any deviations from federally enforceable <u>emission limitations</u>, <u>operational restrictions</u>, <u>and control device operating parameter limitations</u>, excluding deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06, that have been detected by the testing, monitoring and recordkeeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive measures taken, shall be promptly made to the appropriate Ohio EPA District Office or local air agency. These quarterly written reports shall satisfy the requirements of OAC rule 3745-77-07(A)(3)(c)(i) and (ii) pertaining to the submission of monitoring reports every six months and OAC rule 3745-77-07(A)(3)(c)(iii) pertaining to the prompt reporting of all deviations except malfunctions, which shall be reported in accordance with OAC rule 3745-15-06. The written reports shall be submitted quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.) See B.8 below if no deviations occurred during the quarter.
iii. Written reports, which identify any deviations from the federally enforceable <u>monitoring, recordkeeping, and reporting requirements</u> contained in this permit shall be submitted to the appropriate Ohio EPA District Office or local air agency every six months, i.e., by January 31 and July 31 of each year for the previous six calendar months. These semi-annual written reports shall satisfy the requirements of OAC rule 3745-77-07(A)(3)(c)(i)

and (ii) pertaining to the reporting of any deviations related to the monitoring, recordkeeping, and reporting requirements. If no deviations occurred during a six-month period, the permittee shall submit a semi-annual report, which states that no deviations occurred during that period.

iv. Each written report shall be signed by a responsible official certifying that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.

**2. Scheduled Maintenance/Malfunction Reporting**

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction, i.e., upset, of any emissions units or any associated air pollution control system(s) shall be reported to the appropriate Ohio EPA District Office or local air agency in accordance with paragraph (B) of OAC rule 3745-15-06. (The definition of an upset condition shall be the same as that used in OAC rule 3745-15-06(B)(1) for a malfunction.) The verbal and written reports submitted pursuant to OAC rule 3745-15-06 shall satisfy the requirements of OAC rule 3745-77-07(A)(3)(c)(iii) pertaining to the prompt reporting of deviations caused by malfunctions or upsets.

Except as provided in that rule, any scheduled maintenance or malfunction necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emission unit(s) that is (are) served by such control system(s).

**3. Risk Management Plans**

If the permittee is required to develop and register a risk management plan pursuant to section 112(r) of the Clean Air Act, as amended, 42 U.S.C. 7401 et seq. ("Act"), the permittee shall comply with the requirement to register such a plan.

**4. Title IV Provisions**

If the permittee is subject to the requirements of 40 CFR Part 72 concerning acid rain, the permittee shall ensure that any affected emissions unit complies with those requirements. Emissions exceeding any allowances that are lawfully held under Title IV of the Act, or any regulations adopted thereunder, are prohibited.

**5. Severability Clause**

A determination that any term or condition of this permit is invalid shall not invalidate the force or effect of any other term or condition thereof, except to the extent that any other term or condition depends in whole or in part for its operation or implementation upon the term or condition declared invalid.

**6. General Requirements**

a. The permittee must comply with all terms and conditions of this permit. Any noncompliance with the federally enforceable terms and conditions of this permit constitutes a violation of the

Act, and is grounds for enforcement action or for permit revocation, revocation and reissuance, or modification, or for denial of a permit renewal application.

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

c. This permit may be modified, reopened, revoked, or revoked and reissued, for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or revocation, or of a notification of planned changes or anticipated noncompliance does not stay any term and condition of this permit.

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

e. The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying, reopening or revoking this permit or to determine compliance with this permit. Upon request, the permittee shall also furnish to the Director or an authorized representative of the Director, copies of records required to be kept by this permit. For information claimed to be confidential in the submittal to the Director, if the Administrator of the U.S. EPA requests such information, the permittee may furnish such records directly to the Administrator along with a claim of confidentiality.

**7. Fees**

The permittee shall pay fees to the Director of the Ohio EPA in accordance with ORC section 3745.11 and OAC Chapter 3745-78.

**8. Marketable Permit Programs**

No revision of this permit is required under any approved economic incentive, marketable permits, emissions trading, and other similar programs or processes for changes that are provided for in this permit.

**9. Reasonably Anticipated Operating Scenarios**

The permittee is hereby authorized to make changes among operating scenarios authorized in this permit without notice to the Ohio EPA, but, contemporaneous with making a change from one operating scenario to another, the permittee must record in a log at the permitted facility the scenario under which the permittee is operating. The permit shield provided in these general terms and conditions shall apply to all operating scenarios authorized in this permit.

## 10. Reopening for Cause

This Title V permit will be reopened prior to its expiration date under the following conditions:

a. Additional applicable requirements under the Act become applicable to one or more emissions units covered by this permit, and this permit has a remaining term of three or more years. Such a reopening shall be completed not later than eighteen months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to paragraph (E)(1) of OAC rule 3745-77-08.

b. This permit is issued to an affected source under the acid rain program and additional requirements (including excess emissions requirements) become applicable. Upon approval by the Administrator, excess emissions offset plans shall be deemed to be incorporated into the permit, and shall not require a reopening of this permit.

c. The Director of the Ohio EPA or the Administrator of the U.S. EPA determines that the federally applicable requirements in this permit are based on a material mistake, or that inaccurate statements were made in establishing the emissions standards or other terms and conditions of this permit related to such federally applicable requirements.

d. The Administrator of the U.S. EPA or the Director of the Ohio EPA determines that this permit must be revised or revoked to assure compliance with the applicable requirements.

## 11. Federal and State Enforceability

Only those terms and conditions designated in this permit as federally enforceable, that are required under the Act, or any of its applicable requirements, including relevant provisions designed to limit the potential to emit of a source, are enforceable by the Administrator of the U.S. EPA, the State, and citizens under the Act. All other terms and conditions of this permit shall not be federally enforceable and shall be enforceable under State law only.

## 12. Compliance Requirements

a. Any document (including reports) required to be submitted and required by a federally applicable requirement in this Title V permit shall include a certification by a responsible official that, based on information and belief formed after reasonable inquiry, the statements in the document are true, accurate, and complete.

b. Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Director of the Ohio EPA or an authorized representative of the Director to:

   i. At reasonable times, enter upon the permittee's premises where a source is located or the emissions-related activity is conducted, or where records must be kept under the conditions of this permit.
   ii. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit, subject to the protection from disclosure to the public of confidential information consistent with paragraph (E) of OAC rule 3745-77-03.

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

iv. As authorized by the Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit and applicable requirements.

c. The permittee shall submit progress reports to the appropriate Ohio EPA District Office or local air agency concerning any schedule of compliance for meeting an applicable requirement. Progress reports shall be submitted semiannually, or more frequently if specified in the applicable requirement or by the Director of the Ohio EPA. Progress reports shall contain the following:

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

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

d. Compliance certifications concerning the terms and conditions contained in this permit that are federally enforceable emission limitations, standards, or work practices, shall be submitted to the appropriate Ohio EPA District Office or local air agency in the following manner and with the following content:

i. Compliance certifications shall be submitted annually on a calendar year basis. The annual certification shall be submitted on or before April 30th of each year during the permit term.

ii. Compliance certifications shall include the following:

(a) An identification of each term or condition of this permit that is the basis of the certification.

(b) The permittee's current compliance status.

(c) Whether compliance was continuous or intermittent.

(d) The method(s) used for determining the compliance status of the source currently and over the required reporting period.

(e) Such other facts as the Director of the Ohio EPA may require in the permit to determine the compliance status of the source.

iii. Compliance certifications shall contain such additional requirements as may be specified pursuant to sections 114(a)(3) and 504(b) of the Act.

## 13. Permit Shield

a. Compliance with the terms and conditions of this permit (including terms and conditions established for alternate operating scenarios, emissions trading, and emissions averaging, but excluding terms and conditions for which the permit shield is expressly prohibited under OAC rule 3745-77-07) shall be deemed compliance with the applicable requirements identified and addressed in this permit as of the date of permit issuance.

b. This permit shield provision shall apply to any requirement identified in this permit pursuant to OAC rule 3745-77-07(F)(2), as a requirement that does not apply to the source or to one or more emissions units within the source.

**14. Operational Flexibility**

The permittee is authorized to make the changes identified in OAC rule 3745-77-07(H)(1)(a) to (H)(1)(c) within the permitted stationary source without obtaining a permit revision, if such change is not a modification under any provision of Title I of the Act [as defined in OAC rule 3745-77-01(JJ)], and does not result in an exceedance of the emissions allowed under this permit (whether expressed therein as a rate of emissions or in terms of total emissions), and the permittee provides the Administrator of the U.S. EPA and the appropriate Ohio EPA District Office or local air agency with written notification within a minimum of seven days in advance of the proposed changes, unless the change is associated with, or in response to, emergency conditions. If less than seven days notice is provided because of a need to respond more quickly to such emergency conditions, the permittee shall provide notice to the Administrator of the U.S. EPA and the appropriate District Office of the Ohio EPA or local air agency as soon as possible after learning of the need to make the change. The notification shall contain the items required under OAC rule 3745-77-07(H)(2)(d).

**15. Emergencies**

The permittee shall have an affirmative defense of emergency to an action brought for noncompliance with technology-based emission limitations if the conditions of OAC rule 3745-77-07(G)(3) are met. This emergency defense provision is in addition to any emergency or upset provision contained in any applicable requirement.

**16. Off Permit Changes**

The owner or operator of a Title V source may make any change in its operations or emissions at the source that is not specifically addressed or prohibited in the Title V permit, without obtaining an amendment or modification of the permit, provided that the following conditions are met:

a. The change does not result in conditions that violate any applicable requirements or that violate any existing federally enforceable permit term or condition;

b. The permittee provides contemporaneous written notice of the change to the director and the administrator, except that no such notice shall be required for changes that qualify as insignificant emission levels or activities as defined in OAC rule 3745-77-01(U). Such written notice shall describe each such change, the date of such change, any change in emissions or pollutants emitted, and any federally applicable requirement that would apply as a result of the change;

c. The change shall not qualify for the permit shield under OAC rule 3745-77-07(F);

d. The permittee shall keep a record describing all changes made at the source that result in emissions of a regulated air pollutant subject to an applicable requirement, but not otherwise regulated under the permit, and the emissions resulting from those changes; and

e. The change is not subject to any applicable requirement under Title IV of the Act or is not a modification under any provision of Title I of the Act.

Paragraph (I) of rule 3745-77-07 of the Administrative Code applies only to modification or amendment of the permittee's Title V permit. The change made may require a permit to install under Chapter 3745-31 of the Administrative Code if the change constitutes a modification as defined in that Chapter. Nothing in paragraph (I) of rule 3745-77-07 of the Administrative Code shall affect any applicable obligation under Chapter 3745-31 of the Administrative Code.

(For further clarification, the permittee can refer to Engineering Guide #63 that is available in their STARSHIP software package.)

**17. Compliance Method Requirements**

Nothing in this permit shall alter or affect the ability of any person to establish compliance with, or a violation of, any applicable requirement through the use of credible evidence to the extent authorized by law. Nothing in this permit shall be construed to waive any defenses otherwise available to the permittee, including but not limited to, any challenge to the Credible Evidence Rule (see 62 Fed. Reg. 8314, Feb. 24, 1997), in the context of any future proceeding.

**18. Insignificant Activity**

Each insignificant activity that has one or more applicable requirements shall comply with those applicable requirements.

## B. State Only Enforceable Section

### 1. Permit to Install Requirement

Prior to the "installation" or "modification" of any "air contaminant source," as those terms are defined in OAC rule 3745-31-01, a permit to install must be obtained from the Ohio EPA pursuant to OAC Chapter 3745-31.

### 2. Reporting Requirements Related to Monitoring and Recordkeeping Requirements

The permittee shall submit required reports in the following manner:

a. Reports of any required monitoring and/or recordkeeping information shall be submitted to the appropriate Ohio EPA District Office or local air agency.

b. Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (a) any deviations (excursions) from emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the appropriate Ohio EPA District Office or local air agency. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

### 3. Records Retention Requirements

Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include, but not be limited to, all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.

### 4. Inspections and Information Requests

The Director of the Ohio EPA, or an authorized representative of the Director, may, subject to the safety requirements of the permittee and without undue delay, enter upon the premises of this source at any reasonable time for purposes of making inspections, conducting tests, examining records or reports pertaining to any emission of air contaminants, and determining compliance with any applicable State air pollution laws and regulations and the terms and conditions of this permit. The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying, reopening or revoking this permit or to determine compliance with this permit. Upon verbal or written request, the permittee shall also furnish to the Director of the Ohio EPA, or an authorized representative of the Director, copies of records required to be kept by this permit.

## 5. Scheduled Maintenance/Malfunction Reporting

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction of any emissions units or any associated air pollution control system(s) shall be reported to the appropriate Ohio EPA District Office or local air agency in accordance with paragraph (B) of OAC rule 3745-15-06. Except as provided in that rule, any scheduled maintenance or malfunction necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emissions unit(s) that is (are) served by such control system(s).

## 6. Permit Transfers

Any transferee of this permit shall assume the responsibilities of the prior permit holder. The appropriate Ohio EPA District Office or local air agency must be notified in writing of any transfer of this permit.

## 7. Air Pollution Nuisance

The air contaminants emitted by the emissions units covered by this permit shall not cause a public nuisance, in violation of OAC rule 3745-15-07.

## 8. Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations (See Section A of This Permit)

If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters.

# Part II - Specific Facility Terms and Conditions

## A. State and Federally Enforceable Section

**None**

## B. State Only Enforceable Section

**1.** The following insignificant emissions units are located at this facility:

P001- color tray drying (E-5)
P027- tray dryers, littleford mixer (E-31)
P049- HC-11 tanks (E-53)
P057- TCP blend & sluger (E-61)
P071- ceramic color dryer #9 (E-83)
P072- waste shredder (E-80)
P079- general catalyst dryers #4,#5 (E-86)
P081- nitric acid dilution (E-87)
P082- ZR sinter furnace (E-89)
P084- ammonia stripper in WWTP (E-93)
P085- 12 inch rotary calciner (E-95)
P088- fast fire kiln (E-90)
P090- reduction towers (E-98)
P091- elevator kilns (E-96)
P092- #6 rotary calciner (E-97)
P093- Black furnaces (E-99)
P096- Horne tabletting machines (E-102)
T001- sulfuric acid storage tank
Z001- Kewanee boiler, rated at 8.6 MMBTU/hr
Z002 - Kewanee boiler, rated at 8.6 MMBTU/hr
Z003 - Kewanee boiler, rated at 8.6 MMBTU/hr
Z004 - Kewanee boiler, rated at 8.6 MMBTU/hr

Each insignificant emissions unit at this facility must comply with all applicable State and federal regulations, as well as any emissions limitations and/or control requirements contained within a Permit to Install for the emissions unit.

**2.** The permittee is hereby notified that this permit and all Agency records covering the operation of this permitted source are subject to public disclosure in accordance with OAC rule 3745-49-03.

**3.** The permittee shall follow all requirements of its approved Preventive Maintenance and Malfunction Abatement Plan (PMMAP), submitted August 9, 1991, for its air pollution control equipment.

# Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** #2 BOILER (E-91) (B006)

**Activity Description:** #2 BOILER (E-91)

## A. State and Federally Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| 31.3 MMBTU/hr boiler, fired by natural gas or #2 fuel oil; boiler #2 | OAC rule 3745-17-10(B)(1) | particulate matter emissions shall not exceed 0.020 lb/MMBTU actual heat input |
| | OAC rule 3745-18-53 (A)(1) | sulfur dioxide emissions shall not exceed 3.21 lbs/MMBTU actual heat input |
| | OAC rule 3745-17-07(A)(1) | visible particulate matter emissions shall not exceed 20% opacity as a six-minute average, except as provided by rule |

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**1.** The quality of the oil burned in this emissions unit shall meet a sulfur content which is sufficient to comply with the allowable sulfur dioxide emission limitation of 3.21 pounds of sulfur dioxide per mmBtu of actual heat input.

**2.** The permittee shall burn only natural gas and/or number two fuel oil in this emissions unit.

### III. Monitoring and/or Record Keeping Requirements

**1.** Requirements for the Sampling and Analysis of the Oil Burned

The permittee shall collect or require the oil supplier to collect a representative grab sample for each shipment of oil that is received for burning in this emissions unit. The permittee shall perform or require the supplier to perform the analyses for sulfur content and heat content in accordance with the following ASTM methods: ASTM method D4294, ASTM method D240, or ASTM method 6010 for sulfur content; and ASTM method D240 for heat content. Alternative, equivalent methods may be used upon written approval by the appropriate Ohio EPA District Office or local air agency.

**2.** Record keeping Requirements for Oil Usage and Quality

For each shipment of oil received for burning in this emissions unit, the permittee shall maintain records of the total quantity of oil received and the permittee's or oil supplier's analyses for sulfur content and heat content.

## III. Monitoring and/or Record Keeping Requirements (continued)

**3.** For each day during which the permittee burns a fuel other than natural gas and/or number two fuel oil, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

## IV. Reporting Requirements

**1.** Reporting Requirements for the Oil Usage and Quality Data

The permittee shall submit, on a quarterly basis, copies of the permittee's or oil supplier's analyses for each shipment of oil which is received for burning in this emissions unit. The permittee's or oil supplier's analyses shall document the sulfur content (percent) and heat content (Btu/gallon) for each shipment of oil. The following information shall also be included with the copies of the permittee's or oil supplier's analyses:

a. the total quantity of oil received in each shipment (gallons);

b. the weighted* average sulfur dioxide emission rate (pounds/mmBtu) for the oil received during each calendar month; and

c. the weighted* average heat content (Btu/gallon) of the oil received during each calendar month.

*In proportion to the quantity of oil received in each shipment during the calendar month.

These quarterly reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and shall cover the oil shipments received during the previous calendar quarters.

**2.** The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas and/or number two fuel oil was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

## V. Testing Requirements

**1.** Compliance with the particulate matter emission limitation of 0.020 lb/MMBTU actual heat input shall be determined in accordance with OAC rule 3745-17-03(B)(9). No testing is specifically required by this permit but, if appropriate, may be required pursuant to OAC rule 3745-15-04(A). Such testing may be required at opacity levels less than those required by the visible emission limit in Section A.I.

**2.** Compliance with the visible emission limitation shall be determined by using U.S. EPA Method 9, if required by the Ohio EPA.

**3.** Compliance with the sulfur dioxide emission limitation of 3.21 lbs/MMBTU actual heat input shall be determined in accordance with the record keeping requirements in section A.III of this permit. If stack testing is required to demonstrate compliance with the allowable emission limit, testing shall be conducted in accordance with OAC rule 3745-18-04(E)(1).

## VI. Miscellaneous Requirements

**None**

## B. State Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| 31.3 MMBTU/hr boiler, fired by natural gas or #2 fuel oil; boiler #2 | OAC rule 3745-31-05<br>PTI 02-3169 | See B.I.2.a. |

**2. Additional Terms and Conditions**

**2.a** Annual emissions of sulfur dioxide shall not exceed 24.9 tons per year.

### II. Operational Restrictions

**1.** The amount of #2 fuel oil burned in this emissions unit shall not exceed 1,062,274 gallons per year.

**2.** The sulfur content of the #2 fuel oil shall not exceed 0.33%.

### III. Monitoring and/or Record Keeping Requirements

**1.** The permittee shall maintain annual records of the amount of #2 fuel oil burned in this emissions unit.

### IV. Reporting Requirements

**1.** The permittee shall submit annual reports which identify any exceedances of the annual oil usage limitation, as well as the corrective actions that were taken to achieve compliance. These reports shall be submitted by January 31 of each year.

**2.** The permittee shall submit deviation (excursion) reports whenever an oil is received with a sulfur content greater than 0.33%. This report shall include: the actual sulfur content of the oil received and the amount of oil received. The report shall be submitted to the Ohio EPA, Northeast District within 30 days of the deviation.

### V. Testing Requirements

**1.** Emission Limitation: 24.9 tons SO2/year

Applicable Compliance Method: Compliance with above emission limitation shall be demonstrated by the use of the records kept and the following equation:

SO2 emissions (tons/yr) = V x H* x ER* x (1/1000000) x (1/2000)

where:

V = volume of oil burned annually (gallons)

H* = volume-weighted average heat content (BTU/gal) based on all oil received in the year

ER* = volume-weighted average emission rate (lbs SO2/MMBTU heat input) based on all oil received in the year

## VI. Miscellaneous Requirements

**None**

# Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** CER COLOR BLENDING (E-6) (P002)

**Activity Description:** WEIGHSCALE AND BLENDER IN BLDG. 10

## A. State and Federally Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| Weighscale and blender in bldg. 10, with a fabric filter baghouse | OAC rule 3745-17-11(B)(1) | Emissions of particulate matter shall not exceed 1.45 pounds per hour |
| | OAC rule 3745-17-07(A)(1) | Visible particulate emissions shall not exceed 20% opacity as a six-minute average, except as provided by rule |

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**None**

### III. Monitoring and/or Record Keeping Requirements

**1.** The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

### IV. Reporting Requirements

**1.** The permittee shall submit semiannual written reports which (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

## V. Testing Requirements

**1.** Compliance with the particulate matter emission limitation of 1.45 pounds per hour shall be determined in accordance with OAC rule 3745-17-03(B)(10). No testing is specifically required by this permit but, if appropriate, may be required pursuant to OAC rule 3745-15-04(A). Such testing may be required at opacity levels less than those required by the visible emissions limit in Section A.I.

**2.** Compliance with the visible emission limitation shall be determined by using U.S. EPA Method 9, if required by the Ohio EPA.

## VI. Miscellaneous Requirements

**None**

## B. State Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**None**

### III. Monitoring and/or Record Keeping Requirements

**None**

### IV. Reporting Requirements

**None**

### V. Testing Requirements

**None**

### VI. Miscellaneous Requirements

**None**

# Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** CER COLOR MILLING (E-7) (P003)

**Activity Description:** MICROPULVASIZER IN BLDG. 10A

## A. State and Federally Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| Micropulverizer in bldg. 10A, with a fabric filter baghouse | OAC rule 3745-17-11(B)(1) | Emissions of particulate matter shall not exceed 1.15 pounds per hour |
| | OAC rule 3745-17-07(A)(1) | Visible particulate emissions shall not exceed 20% opacity as a six-minute average, except as provided by rule |

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**None**

### III. Monitoring and/or Record Keeping Requirements

**1.** The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

### IV. Reporting Requirements

**1.** The permittee shall submit semiannual written reports which (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

## V. Testing Requirements

**1.** Compliance with the particulate matter emission limitation of 1.15 pounds per hour shall be determined in accordance with OAC rule 3745-17-03(B)(10). No testing is specifically required by this permit but, if appropriate, may be required pursuant to OAC rule 3745-15-04(A). Such testing may be required at opacity levels less than those required by the visible emissions limit in Section A.I.

**2.** Compliance with the visible emission limitation shall be determined by using U.S. EPA Method 9, if required by the Ohio EPA.

## VI. Miscellaneous Requirements

**None**

## B. State Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**None**

### III. Monitoring and/or Record Keeping Requirements

**None**

### IV. Reporting Requirements

**None**

### V. Testing Requirements

**None**

### VI. Miscellaneous Requirements

**None**

# Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** TUNNEL KILN #4 (E-9) (P005)

**Activity Description:** #4 TUNNEL KILN IN BLDG. 10

## A. State and Federally Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| Tunnel kiln #4 in bld. 10, with a fabric filter baghouse | OAC rule 3745-17-11(B)(1) | Emissions of particulate matter shall not exceed 1.51 pounds per hour |
| | OAC rule 3745-17-07(A)(1) | Visible particulate emissions shall not exceed 20% opacity as a six-minute average, except as provided by rule |

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**None**

### III. Monitoring and/or Record Keeping Requirements

**1.** The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

### IV. Reporting Requirements

**1.** The permittee shall submit semiannual written reports which (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

## V. Testing Requirements

**1.** Compliance with the particulate matter emission limitation of 1.51 pounds per hour shall be determined in accordance with OAC rule 3745-17-03(B)(10). No testing is specifically required by this permit but, if appropriate, may be required pursuant to OAC rule 3745-15-04(A). Such testing may be required at opacity levels less than those required by the visible emissions limit in Section A.I.

**2.** Compliance with the visible emission limitation shall be determined by using U.S. EPA Method 9, if required by the Ohio EPA.

## VI. Miscellaneous Requirements

**None**

## B. State Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**None**

### III. Monitoring and/or Record Keeping Requirements

**None**

### IV. Reporting Requirements

**None**

### V. Testing Requirements

**None**

### VI. Miscellaneous Requirements

**None**

# Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** COPPER CALCINER (E-10) (P006)

**Activity Description:** ROTARY CALCINER IN BLDG. 26

## A. State and Federally Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| Rotary calciner in bldg. 26, with two fabric filter baghouses (process equipment) | OAC rule 3745-17-11(B)(1) | Emissions of particulate matter shall not exceed 1.62 pounds per hour |
| Rotary calciner in bldg. 26 (fuel burning equipment) | OAC rule 3745-17-10(A)(1) | Emissions of particulate matter shall not exceed 0.020 lb/MMBTU actual heat input |
| Rotary calciner in bldg. 26 (all equipment) | OAC rule 3745-17-07(A)(1) | Visible particulate emissions shall not exceed 20% opacity as a six-minute average, except as provided by rule |

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**1.** The permittee shall burn only natural gas in this emissions unit.

**2.** The pressure drop across each baghouse shall be maintained within the range of 1 to 5 inches of water while the emissions unit is in operation.

### III. Monitoring and/or Record Keeping Requirements

**1.** For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

**2.** The permittee shall properly operate and maintain equipment to monitor the pressure drop across the baghouses while the emissions unit is in operation. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the baghouse on daily basis.

### IV. Reporting Requirements

**1.** The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

## IV. Reporting Requirements (continued)

**2.** The permittee shall submit pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouses did not comply with the allowable range specified above.

## V. Testing Requirements

**1.** Compliance with the particulate matter emission limitation of 1.62 pounds per hour shall be determined in accordance with OAC rule 3745-17-03(B)(10). No testing is specifically required by this permit but, if appropriate, may be required pursuant to OAC rule 3745-15-04(A). Such testing may be required at opacity levels less than those required by the visible emissions limit in Section A.I.

**2.** Compliance with the visible emission limitation shall be determined by using U.S. EPA Method 9, if required by the Ohio EPA.

**3.** Compliance with the particulate matter emission limitation of 0.020 lb/MMBTU actual heat input shall be determined in accordance with OAC Rule 3745-17-03(B)(9). No testing is specifically required by this permit but, if appropriate, may be required pursuant to OAC Rule 3745-15-04(A). Such testing may be required at opacity levels less than those required by the visible emissions limit in Section A.I.

## VI. Miscellaneous Requirements

**None**

## B. State Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**None**

### III. Monitoring and/or Record Keeping Requirements

**None**

### IV. Reporting Requirements

**None**

### V. Testing Requirements

**None**

### VI. Miscellaneous Requirements

**None**

# Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** ROTARY CALCINER #4 (E-13-1) (P009)

**Activity Description:** GENERAL CATALYST CALCINER #4 IN BLDG. 16

## A. State and Federally Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| General catalyst calciner #4 in bldg. 16 with a fabric filter baghouse (process equipment) | OAC rule 3745-17-11(B)(1) | Emissions of particulate matter shall not exceed 1.62 pounds per hour |
| General catalyst calciner #4 in bldg. 16 (fuel burning equipment) | OAC rule 3745-17-10(A)(1) | Emissions of particulate matter shall not exceed 0.020 lb/MMBTU actual heat input. |
| General catalyst calciner #4 in bldg. 16 (all equipment) | OAC rule 3745-17-07(A)(1) | Visible particulate emissions shall not exceed 20% opacity as a six-minute average, except as provided by rule |

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**1.** The permittee shall burn only natural gas in this emissions unit.

**2.** The pressure drop across the baghouse shall be maintained within the range of 0.3 to 4.5 inches of water while the emissions unit is in operation.

### III. Monitoring and/or Record Keeping Requirements

**1.** For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

**2.** The permittee shall properly operate and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the baghouse on a daily basis.

**3.** On at least one day of each calendar quarter (January through March, April through June, July through September, and October through December), the permittee shall determine the opacity of the stack gases, in accordance with U.S. EPA Reference Method 9, for a period of not less than sixty consecutive minutes while the emissions unit is in operation. The process weight rate and the type of material being calcined shall be recorded for the period during which the stack gases' opacity was recorded.

## IV. Reporting Requirements

**1.** The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

**2.** The permittee shall submit pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above.

**3.** The permittee shall submit opacity deviation (excursion) reports that identify all periods of time during which the emissions unit did not comply with the opacity limit specified above. These reports shall include the average opacity observed, in six-minute blocks, the process weight rate during the observation period and the type of material being processed.

## V. Testing Requirements

**1.** Compliance with the particulate matter emission limitation of 1.62 pounds per hour shall be determined in accordance with OAC rule 3745-17-03(B)(10). No testing is specifically required by this permit but, if appropriate, may be required pursuant to OAC rule 3745-15-04(A). Such testing may be required at opacity levels less than those required by the visible emissions limit in Section A.I.

**2.** Compliance with the visible emission limitation shall be determined by using U.S. EPA Method 9.

**3.** Compliance with the particulate matter emission limitation of 0.020 lb/MMBTU actual heat input shall be determined in accordance with OAC rule 3745-17-03(B)(9). No testing is specifically required by this permit but, if appropriate, may be required pursuant to OAC rule 3745-15-04(A). Such testing may be required at opacity levels less than those required by the visible emissions limit in Section A.I.

## VI. Miscellaneous Requirements

**None**

## B. State Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| General catalyst calciner #4 in bldg. 16 with a Trimer scrubber for NOx control (process equipment) | OAC rule 3745-31-05<br>PTI 19-113 | |

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**1.** Trimer Scrubber Operational Restrictions

The pressure drop across the first stage of the scrubber shall be continuously maintained between 0 and 1.5 inches of water at all times while the emissions unit is in operation.

The pressure drop across the second stage of the scrubber shall be continuously maintained between 1 and 4 inches of water at all times while the emissions unit is in operation.

The pressure drop across the third stage of the scrubber shall be continuously maintained between 3 and 6 inches of water at all times while the emissions unit is in operation.

The scrubber water flow rate to each stage of the scrubber shall be continuously maintained at a value of not less than 50 gallons per minute at all times while the emissions unit is in operation.

**2.** Trimer pH Operational Restrictions

The pH of the scrubber liquor shall be maintained between 10 and 13 s.u.

### III. Monitoring and/or Record Keeping Requirements

**1.** Trimer Scrubber Monitoring and Recordkeeping Requirements

The permittee shall properly operate and maintain equipment to continuously monitor the static pressure drop across the scrubber stages and the scrubber water flow rate to each stage while the emissions unit is in operation. The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall collect and record the following information each day (at a minimum):

a. The pressure drop across each stage of the scrubber, in inches of water, on a once per shift basis.

b. The scrubber water flow rate to each stage of the scrubber, in gallons per minute, on a once per shift basis.

c. The operating times for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit.

## III. Monitoring and/or Record Keeping Requirements (continued)

**2.a.** Trimer scrubber pH Monitoring and Recordkeeping Requirements

The permittee shall properly operate and maintain equipment to continuously monitor and record the pH of the scrubber liquor while the emissions unit is in operation. The pH monitor and recorder shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

**2.b.** The permittee shall record the pH of the scrubber liquor on a once per shift basis.

## IV. Reporting Requirements

**1.** Trimer Scrubber Reporting Requirements

The permittee shall submit deviation (excursion) reports that identify all periods of time during which the following scrubber parameters were not maintained at the required levels:

a. The static pressure drop across each scrubber stage.

b. The scrubber water flow rate to each stage.

**2.** Trimer Scrubber pH Reporting Requirements

The permittee shall submit pH deviation (excursion) reports that identify all periods of time during which the scrubber liquor pH did not comply with the pH requirements specified above.

## V. Testing Requirements

**None**

## VI. Miscellaneous Requirements

**None**

# Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** ROTARY CALCINER #1 (E-14) (P010)

**Activity Description:** GENERAL CATALYST CALCINER # 1 IN BLDG. 31

## A. State and Federally Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| Rotary calciner #1 in bldg. 31 with a fabric filter baghouse (process equipment) | OAC rule 3745-17-11(B)(1) | Emissions of particulate matter shall not exceed 1.62 pounds per hour |
| Rotary calciner #1 in bldg. 31(fuel burning equipment) | OAC rule 3745-17-10(A)(1) | Emissions of particulate matter shall not exceed 0.020 lb/MMBTU actual heat input |
| Rotary calciner #1 in bldg. 31(all equipment) | OAC rule 3745-17-07(A)(1) | Visible particulate emissions shall not exceed 20% opacity as a six-minute average, except as provided by rule |

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**1.** The permittee shall burn only natural gas in this emissions unit.

### III. Monitoring and/or Record Keeping Requirements

**1.** For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

**2.** Monitoring and/or Record Keeping Requirements for process equipment

The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack(s) serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

## III. Monitoring and/or Record Keeping Requirements (continued)

**3.** On at least one day of each calendar quarter (January through March, April through June, July through September, and October through December), the permittee shall determine the opacity of the stack gases, in accordance with U.S. EPA Reference Method 9, for a period of not less than sixty consecutive minutes while the emissions unit is in operation. The process weight rate and the type of material being calcined shall be recorded for the period during which the stack gases' opacity was recorded.

## IV. Reporting Requirements

**1.** The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

**2.** The permittee shall submit semiannual written reports which (a) identify all days during which any visible particulate emissions were observed from the stack(s) serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

**3.** The permittee shall submit opacity deviation (excursion) reports that identify all periods of time during which the emissions unit did not comply with the opacity limit specified above. These reports shall include the average opacity observed, in six-minute blocks, the process weight rate during the observation period and the type of material being processed.

## V. Testing Requirements

**1.** Compliance with the particulate matter emission limitation of 1.62 pounds per hour shall be determined in accordance with OAC rule 3745-17-03(B)(10). No testing is specifically required by this permit but, if appropriate, may be required pursuant to OAC rule 3745-15-04(A). Such testing may be required at opacity levels less than those required by the visible emissions limit in Section A.I.

**2.** Compliance with the visible emission limitation shall be determined by using U.S. EPA Method 9.

**3.** Compliance with the particulate matter emission limitation of 0.020 lb/MMBTU actual heat input shall be determined in accordance with OAC rule 3745-17-03(B)(9). No testing is specifically required by this permit but, if appropriate, may be required pursuant to OAC rule 3745-15-04(A). Such testing may be required at opacity levels less than those required by the visible emissions limit in Section A.I.

## VI. Miscellaneous Requirements

**None**

## B. State Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| Rotary calciner #1 in bldg. 31 with F-1 scrubber and Trimer scrubber for NOx control (process equipment) | | |

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**1.** Trimer Scrubber Operational Restrictions

The pressure drop across the first stage of the scrubber shall be continuously maintained between 0 and 1.5 inches of water at all times while the emissions unit is in operation.

The pressure drop across the second stage of the scrubber shall be continuously maintained between 1 and 4 inches of water at all times while the emissions unit is in operation.

The pressure drop across the third stage of the scrubber shall be continuously maintained between 3 and 6 inches of water at all times while the emissions unit is in operation.

The scrubber water flow rate to each stage of the scrubber shall be continuously maintained at a value of not less than 50 gallons per minute at all times while the emissions unit is in operation.

**2.** Trimer pH Operational Restrictions

The pH of the scrubber liquor shall be maintained between 10 and 13 s.u.

### III. Monitoring and/or Record Keeping Requirements

**1.** Trimer Scrubber Monitoring and Recordkeeping Requirements

The permittee shall properly operate and maintain equipment to continuously monitor the static pressure drop across the scrubber stages and the scrubber water flow rate to each stage while the emissions unit is in operation. The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall collect and record the following information each day (at a minimum):

a. The pressure drop across each stage of the scrubber, in inches of water, on a once per shift basis.

b. The scrubber water flow rate to each stage of the scrubber, in gallons per minute, on a once per shift basis.

c. The operating times for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit.

## III. Monitoring and/or Record Keeping Requirements (continued)

**2.a.** Trimer scrubber pH Monitoring and Recordkeeping Requirements

The permittee shall properly operate and maintain equipment to continuously monitor and record the pH of the scrubber liquor while the emissions unit is in operation. The pH monitor and recorder shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

**2.b.** The permittee shall record the pH of the scrubber liquor on a once per shift basis.

## IV. Reporting Requirements

**1.** Trimer Scrubber Reporting Requirements

The permittee shall submit deviation (excursion) reports that identify all periods of time during which the following scrubber parameters were not maintained at the required levels:

a. The static pressure drop across each scrubber stage.

b. The scrubber water flow rate to each stage.

**2.** Trimer Scrubber pH Reporting Requirements

The permittee shall submit pH deviation (excursion) reports that identify all periods of time during which the scrubber liquor pH did not comply with the pH requirements specified above.

## V. Testing Requirements

**None**

## VI. Miscellaneous Requirements

**None**

# Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** COPPER/ALUMINA DRIER (E-22) (P018)

**Activity Description:** WYSSMONT DRIER IN BLDG. 10

## A. State and Federally Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| Wyssmont tray dryer in bldg. 10 with a fabric filter baghouse | OAC rule 3745-17-11(B)(1) | Emissions of particulate matter shall not exceed 2.31 pounds per hour |
| | OAC rule 3745-17-07(A)(1) | Visible particulate emissions shall not exceed 20% opacity as a six-minute average, except as provided by rule |

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**1.** The pressure drop across the baghouse shall be maintained within the range of 1 to 6 inches of water while the emissions unit is in operation.

### III. Monitoring and/or Record Keeping Requirements

**1.** The permittee shall properly operate and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the baghouse on a daily basis.

### IV. Reporting Requirements

**1.** The permittee shall submit pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above.

### V. Testing Requirements

**1.** Compliance with the particulate matter emission limitation of 2.31 pounds per hour shall be determined in accordance with OAC rule 3745-17-03(B)(10). No testing is specifically required by this permit but, if appropriate, may be required pursuant to OAC rule 3745-15-04(A). Such testing may be required at opacity levels less than those required by the visible emissions limit in Section A.I.

**2.** Compliance with the visible emission limitation shall be determined by using U.S. EPA Method 9, if required by the Ohio EPA.

## VI. Miscellaneous Requirements

**None**

## B. State Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**None**

### III. Monitoring and/or Record Keeping Requirements

**None**

### IV. Reporting Requirements

**None**

### V. Testing Requirements

**None**

### VI. Miscellaneous Requirements

**None**

# Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** CU/BI CALCINERS (E-26) (P022)

**Activity Description:** CU/BI CALCINERS (E-26)

## A. State and Federally Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| Four copper-bismuth calciners | OAC rule 3745-17-11(B)(1) | Emissions of particulate matter shall not exceed 0.551 pound per hour |
| | OAC rule 3745-17-07(A)(1) | Visible particulate emissions shall not exceed 20% opacity as a six-minute average, except as provided by rule |

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**None**

### III. Monitoring and/or Record Keeping Requirements

**1.** The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

### IV. Reporting Requirements

**1.** The permittee shall submit semiannual written reports which (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

## V. Testing Requirements

**1.** Compliance with the particulate matter emission limitation of 0.551 pounds per hour shall be determined in accordance with OAC rule 3745-17-03(B)(10). No testing is specifically required by this permit but, if appropriate, may be required pursuant to OAC rule 3745-15-04(A). Such testing may be required at opacity levels less than those required by the visible emissions limit in Section A.I.

**2.** Compliance with the visible emission limitation shall be determined by using U.S. EPA Method 9, if required by the Ohio EPA.

## VI. Miscellaneous Requirements

**None**

## B. State Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| Four copper-bismuth calciners with a packed tower scrubber for NOx control | | |

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**1.** Wet Scrubber pH Operational Restrictions

The pH of the scrubber liquor shall be maintained within the range of 12 to 14 s.u.

**2.** The pressure drop across the scrubber shall be continuously maintained at a value of not less than 2 inches of water at all times while the emissions unit is in operation.

**3.** The scrubber water flow rate shall be continuously maintained at a value of not less than 30 gallons per minute at all times while the emissions unit is in operation.

### III. Monitoring and/or Record Keeping Requirements

**1.** Wet Scrubber pH Monitoring and Recordkeeping Requirements

The permittee shall properly operate and maintain equipment to continuously monitor and record the pH of the scrubber liquor while the emissions unit is in operation. The pH monitor and recorder shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall collect and record the following information each day:

a. The pH of the scrubber liquor, on a once per shift basis.

b. A log or record of operating time for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit.

**2.** The permittee shall properly install, operate and maintain equipment to continuously monitor the static pressure drop across the scrubber and the scrubber water flow rate while the emissions unit is in operation.The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall collect and record the following information once each week:

a. The pressure drop across the scrubber, in inches of water.

b. The scrubber water flow rate, in gallons per minute.

## IV. Reporting Requirements

**1.** The permittee shall submit pH deviation (excursion) reports that identify all periods of time during which the scrubber liquor pH did not comply with the pH requirements specified above.

**2.** The permittee shall submit deviation (excursion) reports that identify all periods of time during which the following scrubber parameters were not maintained at or above the required levels:

a. The static pressure drop across the scrubber.

b. The scrubber water flow rate.

## V. Testing Requirements

**None**

## VI. Miscellaneous Requirements

**None**

# Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** GEN CAT REACTION TANKS (E-28) (P024)

**Activity Description:** GEN CAT REACTION TANKS (E-28)

## A. State and Federally Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| Four reaction tanks in general catalyst with a wet scrubber | OAC rule 3745-17-11(B)(1) | Emissions of particulate matter shall not exceed 1.51 pounds per hour |
| | OAC rule 3745-17-07(A)(1) | Visible particulate emissions shall not exceed 20% opacity as a six-minute average, except as provided by rule |

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**None**

### III. Monitoring and/or Record Keeping Requirements

**1.** The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

### IV. Reporting Requirements

**1.** The permittee shall submit semiannual written reports which (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

## V. Testing Requirements

**1.** Compliance with the particulate matter emission limitation of 1.51 pounds per hour shall be determined in accordance with OAC rule 3745-17-03(B)(10). No testing is specifically required by this permit but, if appropriate, may be required pursuant to OAC rule 3745-15-04(A). Such testing may be required at opacity levels less than those required by the visible emissions limit in Section A.I.

**2.** Compliance with the visible emission limitation shall be determined by using U.S. EPA Method 9, if required by the Ohio EPA.

## VI. Miscellaneous Requirements

**None**

## B. State Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**None**

### III. Monitoring and/or Record Keeping Requirements

**None**

### IV. Reporting Requirements

**None**

### V. Testing Requirements

**None**

### VI. Miscellaneous Requirements

**None**

# Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** GEN CAT MIXERS (E-29) (P025)

**Activity Description:** LITTLEFORD MIXERS B-3 AND B-4

## A. State and Federally Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| B-3 and B-4 Littleford mixers in general catalyst with two fabric filter baghouses and a wet scrubber | OAC rule 3745-17-11(B)(1) | Emissions of particulate matter shall not exceed 2.31 pounds per hour |
| | OAC rule 3745-17-07(A)(1) | Visible particulate emissions shall not exceed 20% opacity as a six-minute average, except as provided by rule |

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**None**

### III. Monitoring and/or Record Keeping Requirements

**1.** The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

### IV. Reporting Requirements

**1.** The permittee shall submit semiannual written reports which (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

## V. Testing Requirements

**1.** Compliance with the particulate matter emission limitation of 2.31 pounds per hour shall be determined in accordance with OAC rule 3745-17-03(B)(10). No testing is specifically required by this permit but, if appropriate, may be required pursuant to OAC rule 3745-15-04(A). Such testing may be required at opacity levels less than those required by the visible emissions limit in Section A.I.

**2.** Compliance with the visible emission limitation shall be determined by using U.S. EPA Method 9, if required by the Ohio EPA.

## VI. Miscellaneous Requirements

**None**

## B. State Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**None**

### III. Monitoring and/or Record Keeping Requirements

**None**

### IV. Reporting Requirements

**None**

### V. Testing Requirements

**None**

### VI. Miscellaneous Requirements

**None**

# Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** GEN CAT BLENDERS (E-30) (P026)

**Activity Description:** DOUBLE CONE BLENDERS B-1 AND B-2

## A. State and Federally Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| B-1 and B-2 double cone blenders in general catalyst with a wet scrubber | OAC rule 3745-17-11(B)(1) | Emissions of particulate matter shall not exceed 2.31 pounds per hour |
| | OAC rule 3745-17-07(A)(1) | Visible particulate emissions shall not exceed 20% opacity as a six-minute average, except as provided by rule |

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**None**

### III. Monitoring and/or Record Keeping Requirements

**1.** The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

### IV. Reporting Requirements

**1.** The permittee shall submit semiannual written reports which (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

## V. Testing Requirements

**1.** Compliance with the particulate matter emission limitation of 2.31 pounds per hour shall be determined in accordance with OAC rule 3745-17-03(B)(10). No testing is specifically required by this permit but, if appropriate, may be required pursuant to OAC rule 3745-15-04(A). Such testing may be required at opacity levels less than those required by the visible emissions limit in Section A.I.

**2.** Compliance with the visible emission limitation shall be determined by using U.S. EPA Method 9, if required by the Ohio EPA.

## VI. Miscellaneous Requirements

**None**

## B. State Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**None**

### III. Monitoring and/or Record Keeping Requirements

**None**

### IV. Reporting Requirements

**None**

### V. Testing Requirements

**None**

### VI. Miscellaneous Requirements

**None**

# Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** GEN CAT EXTRUDERS (E-32) (P028)

**Activity Description:** GEN CAT EXTRUDERS (E-32)

## A. State and Federally Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| Five extruders in general catalyst with a fabric filter baghouse | OAC rule 3745-17-11(B)(1) | Emissions of particulate matter shall not exceed 3.38 pounds per hour |
| | OAC rule 3745-17-07(A)(1) | Visible particulate emissions shall not exceed 20% opacity as a six-minute average, except as provided by rule |

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**None**

### III. Monitoring and/or Record Keeping Requirements

**1.** The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

### IV. Reporting Requirements

**1.** The permittee shall submit semiannual written reports which (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

## V. Testing Requirements

**1.** Compliance with the particulate matter emission limitation of 3.38 pounds per hour shall be determined in accordance with OAC rule 3745-17-03(B)(10). No testing is specifically required by this permit but, if appropriate, may be required pursuant to OAC rule 3745-15-04(A). Such testing may be required at opacity levels less than those required by the visible emissions limit in Section A.I.

**2.** Compliance with the visible emission limitation shall be determined by using U.S. EPA Method 9, if required by the Ohio EPA.

## VI. Miscellaneous Requirements

**None**

## B. State Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**None**

### III. Monitoring and/or Record Keeping Requirements

**None**

### IV. Reporting Requirements

**None**

### V. Testing Requirements

**None**

### VI. Miscellaneous Requirements

**None**

# Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** CER COLOR BLEND AND MILL (E-34) (P030)

**Activity Description:** MIKROPULVERIZER AND CINCINNATUS MIXER IN BLDG. 10A

## A. State and Federally Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| Micropulverizer and mixer in bldg. 10A with a fabric filter baghouse | OAC rule 3745-17-11(B)(1) | Emissions of particulate matter shall not exceed 2.31 pounds per hour |
| | OAC rule 3745-17-07(A)(1) | Visible particulate emissions shall not exceed 20% opacity as a six-minute average, except as provided by rule |

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**None**

### III. Monitoring and/or Record Keeping Requirements

**1.** The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

### IV. Reporting Requirements

**1.** The permittee shall submit semiannual written reports which (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

## V. Testing Requirements

**1.** Compliance with the particulate matter emission limitation of 2.31 pounds per hour shall be determined in accordance with OAC rule 3745-17-03(B)(10). No testing is specifically required by this permit but, if appropriate, may be required pursuant to OAC rule 3745-15-04(A). Such testing may be required at opacity levels less than those required by the visible emissions limit in Section A.I.

**2.** Compliance with the visible emission limitation shall be determined by using U.S. EPA Method 9, if required by the Ohio EPA.

## VI. Miscellaneous Requirements

**None**

## B. State Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**None**

### III. Monitoring and/or Record Keeping Requirements

**None**

### IV. Reporting Requirements

**None**

### V. Testing Requirements

**None**

### VI. Miscellaneous Requirements

**None**

# Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** CER COLOR BLEND,CRUSH,MILL (E-35) (P031)

**Activity Description:** BLENDERS 1,2; PULVERIZERS M-1 &M-2; CRUSHER IN BLDG. 10A

## A. State and Federally Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| Two blenders, two pulverizers, crusher in bldg. 10A with a fabric filter baghouse | OAC rule 3745-17-11(B)(1) | Emissions of particulate matter shall not exceed 1.26 pounds per hour |
| | OAC rule 3745-17-07(A)(1) | Visible particulate emissions shall not exceed 20% opacity as a six-minute average, except as provided by rule |

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**None**

### III. Monitoring and/or Record Keeping Requirements

**1.** The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

### IV. Reporting Requirements

**1.** The permittee shall submit semiannual written reports which (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

## V. Testing Requirements

**1.** Compliance with the particulate matter emission limitation of 1.26 pounds per hour shall be determined in accordance with OAC rule 3745-17-03(B)(10). No testing is specifically required by this permit but, if appropriate, may be required pursuant to OAC rule 3745-15-04(A). Such testing may be required at opacity levels less than those required by the visible emissions limit in Section A.I.

**2.** Compliance with the visible emission limitation shall be determined by using U.S. EPA Method 9, if required by the Ohio EPA.

## VI. Miscellaneous Requirements

**None**

## B. State Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**None**

### III. Monitoring and/or Record Keeping Requirements

**None**

### IV. Reporting Requirements

**None**

### V. Testing Requirements

**None**

### VI. Miscellaneous Requirements

**None**

# Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** MISC TABLET MIX EQUIPT (E-54) (P050)

**Activity Description:** GRANULATORS,CRUSHER BRIQUETTOR

## A. State and Federally Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| Granulators, crusher and briquettor with three fabric filter baghouses | OAC rule 3745-17-11(B)(1) | Emissions of particulate matter shall not exceed 1.15 pounds per hour |
| | OAC rule 3745-17-07(A)(1) | Visible particulate emissions shall not exceed 20% opacity as a six-minute average, except as provided by rule |

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**None**

### III. Monitoring and/or Record Keeping Requirements

**1.** The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

### IV. Reporting Requirements

**1.** The permittee shall submit semiannual written reports which (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

## V. Testing Requirements

**1.** Compliance with the particulate matter emission limitation of 1.15 pounds per hour shall be determined in accordance with OAC rule 3745-17-03(B)(10). No testing is specifically required by this permit but, if appropriate, may be required pursuant to OAC rule 3745-15-04(A). Such testing may be required at opacity levels less than those required by the visible emissions limit in Section A.I.

**2.** Compliance with the visible emission limitation shall be determined by using U.S. EPA Method 9, if required by the Ohio EPA.

## VI. Miscellaneous Requirements

**None**

## B. State Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**None**

### III. Monitoring and/or Record Keeping Requirements

**None**

### IV. Reporting Requirements

**None**

### V. Testing Requirements

**None**

### VI. Miscellaneous Requirements

**None**

# Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** MISC TABLET MIXING (E-55) (P051)

**Activity Description:** J.H.DAY BLENDERS

## A. State and Federally Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| J.H. Day blenders with a fabric filter baghouse | OAC rule 3745-17-11(B)(1) | Emissions of particulate matter shall not exceed 2.31 pounds per hour |
| | OAC rule 3745-17-07(A)(1) | Visible particulate emissions shall not exceed 20% opacity as a six-minute average, except as provided by rule |

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**None**

### III. Monitoring and/or Record Keeping Requirements

**1.** The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

### IV. Reporting Requirements

**1.** The permittee shall submit semiannual written reports which (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

## V. Testing Requirements

**1.** Compliance with the particulate matter emission limitation of 2.31 pounds per hour shall be determined in accordance with OAC rule 3745-17-03(B)(10). No testing is specifically required by this permit but, if appropriate, may be required pursuant to OAC rule 3745-15-04(A). Such testing may be required at opacity levels less than those required by the visible emissions limit in Section A.I.

**2.** Compliance with the visible emission limitation shall be determined by using U.S. EPA Method 9, if required by the Ohio EPA.

## VI. Miscellaneous Requirements

**None**

## B. State Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**None**

### III. Monitoring and/or Record Keeping Requirements

**None**

### IV. Reporting Requirements

**None**

### V. Testing Requirements

**None**

### VI. Miscellaneous Requirements

**None**

# Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** NICKEL TABLET SYSTEM (E-57) (P053)

**Activity Description:** 2 DH MILL; RIBBON BLENDER; TABLET MACHINES

## A. State and Federally Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| 2 DH mill, blender, tablet machines with two fabric filter baghouses | OAC rule 3745-17-11(B)(1) | Emissions of particulate matter shall not exceed 1.02 pounds per hour |
| | OAC rule 3745-17-07(A)(1) | Visible particulate emissions shall not exceed 20% opacity as a six-minute average, except as provided by rule |

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**None**

### III. Monitoring and/or Record Keeping Requirements

**1.** The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

### IV. Reporting Requirements

**1.** The permittee shall submit semiannual written reports which (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

## V. Testing Requirements

**1.** Compliance with the particulate matter emission limitation of 1.02 pounds per hour shall be determined in accordance with OAC rule 3745-17-03(B)(10). No testing is specifically required by this permit but, if appropriate, may be required pursuant to OAC rule 3745-15-04(A). Such testing may be required at opacity levels less than those required by the visible emissions limit in Section A.I.

**2.** Compliance with the visible emission limitation shall be determined by using U.S. EPA Method 9, if required by the Ohio EPA.

## VI. Miscellaneous Requirements

**None**

## B. State Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**None**

### III. Monitoring and/or Record Keeping Requirements

**None**

### IV. Reporting Requirements

**None**

### V. Testing Requirements

**None**

### VI. Miscellaneous Requirements

**None**

# Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** IRON ROOM TABLET (E-58 (P054)

**Activity Description:** IRON ROOM TABLET (E-58

## A. State and Federally Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| Iron room tableting operation with three fabric filter baghouses | OAC rule 3745-17-11(B)(1) | Emissions of particulate matter shall not exceed 1.02 pounds per hour |
| | OAC rule 3745-17-07(A)(1) | Visible particulate emissions shall not exceed 20% opacity as a six-minute average, except as provided by rule |

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**None**

### III. Monitoring and/or Record Keeping Requirements

**1.** The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

### IV. Reporting Requirements

**1.** The permittee shall submit semiannual written reports which (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

## V. Testing Requirements

**1.** Compliance with the particulate matter emission limitation of 1.02 pounds per hour shall be determined in accordance with OAC rule 3745-17-03(B)(10). No testing is specifically required by this permit but, if appropriate, may be required pursuant to OAC rule 3745-15-04(A). Such testing may be required at opacity levels less than those required by the visible emissions limit in Section A.I.

**2.** Compliance with the visible emission limitation shall be determined by using U.S. EPA Method 9, if required by the Ohio EPA.

## VI. Miscellaneous Requirements

**None**

## B. State Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**None**

### III. Monitoring and/or Record Keeping Requirements

**None**

### IV. Reporting Requirements

**None**

### V. Testing Requirements

**None**

### VI. Miscellaneous Requirements

**None**

# Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** ZINC TABLET MIX (E-59) (P055)

**Activity Description:** ZINC TABLET MIX (E-59)

## A. State and Federally Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| Zinc catalyst tableting operation with a fabric filter baghouse and a wet scrubber | OAC rule 3745-17-11(B)(1) | Emissions of particulate matter shall not exceed 1.62 pounds per hour |
| | OAC rule 3745-17-07(A)(1) | Visible particulate emissions shall not exceed 20% opacity as a six-minute average, except as provided by rule |

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**None**

### III. Monitoring and/or Record Keeping Requirements

**1.** The permittee shall perform weeky checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

### IV. Reporting Requirements

**1.** The permittee shall submit semiannual written reports which (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

## V. Testing Requirements

**1.** Compliance with the particulate matter emission limitation of 1.62 pounds per hour shall be determined in accordance with OAC rule 3745-17-03(B)(10). No testing is specifically required by this permit but, if appropriate, may be required pursuant to OAC rule 3745-15-04(A). Such testing may be required at opacity levels less than those required by the visible emissions limit in Section A.I.

**2.** Compliance with the visible emission limitation shall be determined by using U.S. EPA Method 9, if required by the Ohio EPA.

## VI. Miscellaneous Requirements

**None**

## B. State Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**None**

### III. Monitoring and/or Record Keeping Requirements

**None**

### IV. Reporting Requirements

**None**

### V. Testing Requirements

**None**

### VI. Miscellaneous Requirements

**None**

# Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** LUNCH ROOM TABLET (E-60) (P056)

**Activity Description:** LUNCH ROOM TABLET (E-60)

## A. State and Federally Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| Miscellaneous catalyst tableting operation with a multiclone | OAC rule 3745-17-11(B)(1) | Emissions of particulate matter shall not exceed 0.72 pound per hour |
| | OAC rule 3745-17-07(A)(1) | Visible particulate emissions shall not exceed 20% opacity as a six-minute average, except as provided by rule |

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**None**

### III. Monitoring and/or Record Keeping Requirements

**1.** The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

### IV. Reporting Requirements

**1.** The permittee shall submit semiannual written reports which (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

## V. Testing Requirements

**1.** Compliance with the particulate matter emission limitation of 0.72 pound per hour shall be determined in accordance with OAC rule 3745-17-03(B)(10). No testing is specifically required by this permit but, if appropriate, may be required pursuant to OAC rule 3745-15-04(A). Such testing may be required at opacity levels less than those required by the visible emissions limit in Section A.I.

**2.** Compliance with the visible emission limitation shall be determined by using U.S. EPA Method 9, if required by the Ohio EPA.

## VI. Miscellaneous Requirements

**None**

## B. State Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**None**

### III. Monitoring and/or Record Keeping Requirements

**None**

### IV. Reporting Requirements

**None**

### V. Testing Requirements

**None**

### VI. Miscellaneous Requirements

**None**

# Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** CER COLOR PULVERIZER (E-62) (P058)

**Activity Description:** CER COLOR PULVERIZER (E-62)

## A. State and Federally Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| Ceramic color pulverizer with two fabric filter baghouses | OAC rule 3745-17-11(B)(1) | Emissions of particulate matter shall not exceed 0.66 pound per hour |
| | OAC rule 3745-17-07(A)(1) | Visible particulate emissions shall not exceed 20% opacity as a six-minute average, except as provided by rule |

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**None**

### III. Monitoring and/or Record Keeping Requirements

**1.** The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

### IV. Reporting Requirements

**1.** The permittee shall submit semiannual written reports which (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

## V. Testing Requirements

**1.** Compliance with the particulate matter emission limitation of 0.66 pound per hour shall be determined in accordance with OAC rule 3745-17-03(B)(10). No testing is specifically required by this permit but, if appropriate, may be required pursuant to OAC rule 3745-15-04(A). Such testing may be required at opacity levels less than those required by the visible emissions limit in Section A.I.

**2.** Compliance with the visible emission limitation shall be determined by using U.S. EPA Method 9, if required by the Ohio EPA.

## VI. Miscellaneous Requirements

**None**

## B. State Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**None**

### III. Monitoring and/or Record Keeping Requirements

**None**

### IV. Reporting Requirements

**None**

### V. Testing Requirements

**None**

### VI. Miscellaneous Requirements

**None**

# Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** COLOR JETMILL (E-94) (P059)

**Activity Description:** COLOR JETMILL (E-94)

## A. State and Federally Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| West jet mill, East jet mill, conical blender with a fabric filter baghouse (baghouse E-12808) | OAC rule 3745-17-11(B)(1) | Emissions of particulate matter shall not exceed 1.39 pounds per hour |
| | OAC rule 3745-17-07(A)(1) | Visible particulate emissions shall not exceed 20% opacity as a six-minute average, except as provided by rule |

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**1.** The pressure drop across the baghouse shall be maintained within the range of 1 to 5 inches of water while the emissions unit is in operation.

### III. Monitoring and/or Record Keeping Requirements

**1.** The permittee shall properly operate and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the baghouse on a daily basis.

### IV. Reporting Requirements

**1.** The permittee shall submit pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above.

### V. Testing Requirements

**1.** Compliance with the particulate matter emission limitation of 1.39 pounds per hour shall be determined in accordance with OAC rule 3745-17-03(B)(10). No testing is specifically required by this permit but, if appropriate, may be required pursuant to OAC rule 3745-15-04(A). Such testing may be required at opacity levels less than those required by the visible emissions limit in Section A.I.

**2.** Compliance with the visible emission limitation shall be determined by using U.S. EPA Method 9, if required by the Ohio EPA.

## VI. Miscellaneous Requirements

**None**

## B. State Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| West jet mill, East jet mill and conical blender with a fabric filter baghouse | OAC rule 3745-31-05<br>PTI 02-4854 | Emissions of particulate matter shall not exceed 0.03 grain per dry standard cubic foot of exhaust gases and 0.93 pound per hour |

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**None**

### III. Monitoring and/or Record Keeping Requirements

**None**

### IV. Reporting Requirements

**None**

### V. Testing Requirements

**1.** Compliance with the particulate matter emission limitations of Section B.I. of these terms and conditions shall be determined in accordance with OAC rule 3745-17-03(B)(10). No testing is specifically required by this permit but, if appropriate, may be required pursuant to OAC rule 3745-15-04(A). Such testing may be required at opacity levels less than those required by the visible emissions limit in Section A.I.

### VI. Miscellaneous Requirements

**None**

# Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** WOLV DRY AND VERT CALC (E-75) (P068)

**Activity Description:** Wolverine Dryer and Verticle Calciner

## A. State and Federally Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| Wolverine dryer and vertical calciner (process equipment) with a fabric filter baghouse | OAC rule 3745-17-11(B)(1) | Emissions of particulate matter shall not exceed 2.91 pounds per hour |
| Wolverine dryer and vertical calciner (fuel burning equipment) | OAC rule 3745-17-10(A)(1) | Emissions of particulate matter shall not exceed 0.020 lb/MMBTU actual heat input |
| Wolverine dryer and vertical calciner (all equipment) | OAC rule 3745-17-07(A)(1) | Visible particulate emissions from any stack shall not exceed 20% opacity as a six-minute average, except as provided by rule |

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**1.** The pressure drop across the baghouse shall be maintained within the range of 2 to 6 inches of water while the emissions unit is in operation.

**2.** The permittee shall burn only natural gas in this emissions unit.

### III. Monitoring and/or Record Keeping Requirements

**1.** The permittee shall properly operate and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the baghouse on a daily basis.

**2.** For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

### IV. Reporting Requirements

**1.** The permittee shall submit pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above.

## IV. Reporting Requirements (continued)

**2.** The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

## V. Testing Requirements

**1.** Compliance with the particulate matter emission limitation of 2.91 pounds per hour shall be determined in accordance with OAC rule 3745-17-03(B)(10). No testing is specifically required by this permit but, if appropriate, may be required pursuant to OAC rule 3745-15-04(A). Such testing may be required at opacity levels less than those required by the visible emissions limit in Section A.I.

**2.** Compliance with the particulate matter emission limitation of 0.020 lb/MMBTU actual heat input shall be determined in accordance with OAC rule 3745-17-03(B)(9). No testing is specifically required by this permit but, if appropriate, may be required pursuant to OAC rule 3745-15-04(A). Such testing may be required at opacity levels less than those required by the visible emissions limit in Section A.I.

**3.** Compliance with the visible emission limitation shall be determined by using U.S. EPA Method 9, if required by the Ohio EPA.

## VI. Miscellaneous Requirements

**None**

## B. State Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| Wolverine dryer and vertical calciner with a fabric filter baghouse | OAC rule 3745-31-05<br>PTI 02-10269 | The emissions of oxides of nitrogen (NOx) shall not exceed 0.10 lb/MMBTU actual heat input and 0.79 pound per hour.<br><br>See section B.II. |

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**1.** The collection efficiency of the air pollution capture hoods for this emissions unit shall be sufficient to minimize or eliminate visible emissions of fugitive dust at all points of capture. The permittee shall maintain all hoods and enclosures in good operating condition. The collection efficiency shall be considered adequate if visible particulate emissions of fugitive dust do not exceed 20% opacity as a three-minute average.

### III. Monitoring and/or Record Keeping Requirements

**None**

### IV. Reporting Requirements

**None**

### V. Testing Requirements

**1.** Compliance with the NOx emission limitation of 0.10 lb/MMBTU actual heat input and 0.79 lb/hr shall be determined by using the emission factors from AP-42 for natural gas combustion (Section 1.4, 1998 update).

**2.** Compliance with the visible emission limitation in section B.II of these terms and conditions shall be determined in accordance with the following methods:

Applicable compliance method: Test Method 9 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996, and the modifications listed in paragraphs (B)(3)(a) and (B)(3)(b) of OAC rule 3745-17-03.

### VI. Miscellaneous Requirements

**None**

# Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** P-K BLENDER (E-76) (P069)

**Activity Description:** #2 PK Blender (Copper on alumina)

## A. State and Federally Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| P-K blender: copper on alumina with a fabric filter baghouse | OAC rule 3745-17-11(B)(1) | Emissions of particulate matter shall not exceed 2.31 pounds per hour |
| | OAC rule 3745-17-07(A)(1) | Visible particulate emissions from any stack shall not exceed 20% opacity as a six-minute average, except as provided by rule |

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**None**

### III. Monitoring and/or Record Keeping Requirements

**1.** The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

### IV. Reporting Requirements

**1.** The permittee shall submit semiannual written reports which (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

## V. Testing Requirements

**1.** Compliance with the particulate matter emission limitation of 2.31 pounds per hour shall be determined in accordance with OAC rule 3745-17-03(B)(10). No testing is specifically required by this permit but, if appropriate, may be required pursuant to OAC rule 3745-15-04(A). Such testing may be required at opacity levels less than those required by the visible emissions limit in Section A.I.

**2.** Compliance with the visible emission limitation shall be determined by using U.S. EPA Method 9, if required by the Ohio EPA.

## VI. Miscellaneous Requirements

**None**

## B. State Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| P-K blender: copper on alumina with a fabric filter baghouse | OAC rule 3745-31-05<br>PTI 02-10269 | See section B.II. |

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**1.** The collection efficiency of the air pollution capture hoods for emissions unit P069 shall be sufficient to minimize or eliminate visible particulate emissions of fugitive dust at all points of capture. The permittee shall maintain all hoods and enclosures in good operating condition. The collection efficiency shall be considered adequate if visible particulate emissions of fugitive dust do not exceed 20% opacity as a three-minute average.

### III. Monitoring and/or Record Keeping Requirements

**None**

### IV. Reporting Requirements

**None**

### V. Testing Requirements

**1.** Compliance with the visible emission limitation in section B.II of these terms and conditions shall be determined in accordance with the following methods:

Test Method 9 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996, and the modifications listed in paragraphs (B)(3)(a) and (B)(3)(b) of OAC rule 3745-17-03.

### VI. Miscellaneous Requirements

**None**

# Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** CU/CR STRIKE (E-77) (P070)

**Activity Description:** Copper Chromite Strike Tanks

## A. State and Federally Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| Copper chromite strike tanks with a wet scrubber | OAC rule 3745-17-11(B)(1) | Emissions of particulate matter shall not exceed 2.58 pounds per hour |
| | OAC rule 3745-17-07(A)(1) | Visible particulate emissions shall not exceed 20% opacity as a six-minute average, except as provided by rule |

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**1.** The pressure drop across the Interstates Plastics scrubber (model #15) shall be continuously maintained at a value of not less than 1 inch of water at all times while the emissions unit is in operation.

**2.** The scrubber water flow rate to the Interstates Plastics scrubber shall be continuously maintained at a value of not less than 25 gallons per minute at all times while the emissions unit is in operation.

### III. Monitoring and/or Record Keeping Requirements

**1.** The permittee shall properly operate and maintain equipment to continuously monitor the static pressure drop across the Interstates Plastics scrubber and the scrubber water flow rate while the emissions unit is in operation. The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall collect and record the following information once each day:

a. The pressure drop across the scrubber, in inches of water.

b. The scrubber water flow rate, in gallons per minute.

c. The operating times for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit.

## IV. Reporting Requirements

**1.** The permittee shall submit deviation (excursion) reports that identify all periods of time during which the following scrubber parameters were not maintained at or above the required levels:

a. The static pressure drop across the scrubber.

b. The scrubber water flow rate.

## V. Testing Requirements

**1.** Compliance with the particulate matter emission limitation of 2.58 pounds per hour shall be determined in accordance with OAC rule 3745-17-03(B)(10). No testing is specifically required by this permit but, if appropriate, may be required pursuant to OAC rule 3745-15-04(A). Such testing may be required at opacity levels less than those required by the visible emissions limit in Section A.I.

**2.** Compliance with the visible emission limitation shall be determined by using U.S. EPA Method 9, if required by the Ohio EPA.

## VI. Miscellaneous Requirements

**None**

## B. State Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**None**

### III. Monitoring and/or Record Keeping Requirements

**None**

### IV. Reporting Requirements

**None**

### V. Testing Requirements

**None**

### VI. Miscellaneous Requirements

**None**

# Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** P&S DRIER IN HC-11 (E-84) (P077)

**Activity Description:** P & S Dryer in HC-11

## A. State and Federally Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| P & S belt dryer (process equipment) with a fabric filter baghouse | OAC rule 3745-17-11(B)(1) | Emissions of particulate matter shall not exceed 3.53 pounds per hour |
| P & S belt dryer (fuel burning equipment) | OAC rule 3745-17-10(A)(1) | Emissions of particulate matter shall not exceed 0.020 lb/MMBTU actual heat input |
| P & S belt dryer (all equipment) | OAC rule 3745-17-07(A)(1) | Visible particulate emissions shall not exceed 20% opacity as a six-minute average, except as provided by rule |

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**1.** The pressure drop across the baghouse shall be maintained within the range of 1 to 5 inches of water while the emissions unit is in operation.

**2.** The permittee shall burn only natural gas in this emissions unit.

### III. Monitoring and/or Record Keeping Requirements

**1.** The permittee shall properly operate and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the baghouse on a daily basis.

**2.** For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

### IV. Reporting Requirements

**1.** The permittee shall submit pressure drop deviation (excursion) reports that identify that all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above.

## IV. Reporting Requirements (continued)

**2.** The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

## V. Testing Requirements

**1.** Compliance with the particulate matter emission limitation of 3.53 pounds per hour shall be determined in accordance with OAC rule 3745-17-03(B)(10). No testing is specifically required by this permit but, if appropriate, may be required pursuant to OAC rule 3745-15-04(A). Such testing may be required at opacity levels less than those required by the visible emissions limit in Section A.I.

**2.** Compliance with the visible emission limitation shall be determined by using U.S. EPA Method 9, if required by the Ohio EPA.

**3.** Compliance with the particulate matter emission limitation of 0.020 lb/MMBTU actual heat input shall be determined in accordance with OAC rule 3745-17-03(B)(9). No testing is specifically required by this permit but, if appropriate, may be required pursuant to OAC rule 3745-15-04(A). Such testing may be required at opacity levels less than those required by the visible emissions limit in Section A.I.

## VI. Miscellaneous Requirements

**None**

## B. State Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**None**

### III. Monitoring and/or Record Keeping Requirements

**None**

### IV. Reporting Requirements

**None**

### V. Testing Requirements

**None**

### VI. Miscellaneous Requirements

**None**

# Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** ROTARY CALCINER #5 (E-13) (P080)

**Activity Description:** MISCELLANEOUS CATALYSTS

## A. State and Federally Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| Rotary calciner #5 with a fabric filter baghouse (process equipment) | OAC rule 3745-17-11(B)(1) | Emissions of particulate matter shall not exceed 2.28 pounds per hour |
| Rotary calciner #5 (fuel burning equipment) | OAC rule 3745-17-10(A)(1) | Emissions of particulate matter shall not exceed 0.020 lb/MMBTU actual heat input |
| Rotary calciner #5 (all equipment) | OAC rule 3745-17-07(A)(1) | Visible particulate emissions from any stack shall not exceed 20% opacity as a six-minute average, except as provided by rule |

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**1.** The permittee shall burn only natural gas in this emissions unit.

### III. Monitoring and/or Record Keeping Requirements

**1.** For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

**2.** The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack(s) serving this emissions unit, (excluding the stack(s) serving the fuel burning equipment). The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

## IV. Reporting Requirements

**1.** The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

**2.** The permittee shall submit semiannual written reports which (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

## V. Testing Requirements

**1.** Compliance with the particulate matter emission limitation of 2.28 pounds per hour shall be determined in accordance with OAC rule 3745-17-03(B)(10). No testing is specifically required by this permit but, if appropriate, may be required pursuant to OAC rule 3745-15-04(A). Such testing may be required at opacity levels less than those required by the visible emissions limit in Section A.I.

**2.** Compliance with the visible emission limitation shall be determined by using U.S. EPA Method 9, if required by the Ohio EPA.

**3.** Compliance with the particulate matter emission limitation of 0.020 lb/MMBTU actual heat input shall be determined in accordance with OAC Rule 3745-17-03(B)(9). No testing is specifically required by this permit but, if appropriate, may be required pursuant to OAC Rule 3745-15-04(A). Such testing may be required at opacity levels less than those required by the visible emissions limit in Section A.I.

## VI. Miscellaneous Requirements

**None**

## B. State Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| Rotary calciner #5 with Trimer scrubber for NOx control (process equipment) | | |

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**1.** Trimer Scrubber Operational Restrictions

The pressure drop across the first stage of the scrubber shall be continuously maintained between 0 and 0.6 inches of water at all times while the emissions unit is in operation.

The pressure drop across the second stage of the scrubber shall be continuously maintained between 1 and 3 inches of water at all times while the emissions unit is in operation.

The pressure drop across the third stage of the scrubber shall be continuously maintained between 3 and 5 inches of water at all times while the emissions unit is in operation.

The scrubber water flow rate to each stage of the scrubber shall be continuously maintained at a value of not less than 50 gallons per minute at all times while the emissions unit is in operation.

**2.** Trimer pH Operational Restrictions

The pH of the scrubber liquor shall be maintained between 10 and 12 s.u.

### III. Monitoring and/or Record Keeping Requirements

**1.** Trimer Scrubber Monitoring and Recordkeeping Requirements

The permittee shall properly operate and maintain equipment to continuously monitor the static pressure drop across the scrubber stages and the scrubber water flow rate to each stage while the emissions unit is in operation. The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall collect and record the following information each day (at a minimum):

a. The pressure drop across each stage of the scrubber, in inches of water, on a once per shift basis.

b. The scrubber water flow rate to each stage of the scrubber, in gallons per minute, on a once per shift basis.

c. The operating times for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit.

## III. Monitoring and/or Record Keeping Requirements (continued)

**2.a.** Trimer scrubber pH Monitoring and Recordkeeping Requirements

The permittee shall properly operate and maintain equipment to continuously monitor and record the pH of the scrubber liquor while the emissions unit is in operation. The pH monitor and recorder shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

**2.b.** The permittee shall record the pH of the scrubber liquor on a once per shift basis.

## IV. Reporting Requirements

**1.** Trimer Scrubber Reporting Requirements

The permittee shall submit deviation (excursion) reports that identify all periods of time during which the following scrubber parameters were not maintained at the required levels:

a. The static pressure drop across each scrubber stage.

b. The scrubber water flow rate to each stage.

**2.** Trimer Scrubber pH Reporting Requirements

The permittee shall submit pH deviation (excursion) reports that identify all periods of time during which the scrubber liquor pH did not comply with the pH requirements specified above.

## V. Testing Requirements

**None**

## VI. Miscellaneous Requirements

**None**

# Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** SHUTTLE KILN #1 (E-88) (P083)

**Activity Description:** Shuttle kiln #1

## A. State and Federally Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| Shuttle kiln #1 with two fabric filter baghouses | OAC rule 3745-17-11(B)(1) | Emissions of particulate matter shall not exceed 1.62 pounds per hour |
| | OAC rule 3745-17-07(A)(1) | Visible particulate emissions shall not exceed 20% opacity as a six-minute average, except as provided by rule |

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**None**

### III. Monitoring and/or Record Keeping Requirements

**1.** The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

### IV. Reporting Requirements

**1.** The permittee shall submit semiannual written reports which (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

## V. Testing Requirements

**1.** Compliance with the particulate matter emission limitation of 1.62 pounds per hour shall be determined in accordance with OAC rule 3745-17-03(B)(10). No testing is specifically required by this permit but, if appropriate, may be required pursuant to OAC rule 3745-15-04(A). Such testing may be required at opacity levels less than those required by the visible emissions limit in Section A.I.

**2.** Compliance with the visible emission limitation shall be determined by using U.S. EPA Method 9, if required by the Ohio EPA.

## VI. Miscellaneous Requirements

**None**

## B. State Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| Shuttle kiln #1 with two fabric filter baghouses | OAC rule 3745-31-05<br>PTI 02-2017 | Emissions of particulate matter shall not exceed 0.02 gr/dscf of exhaust gases and 3.23 tons per year. |

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**None**

### III. Monitoring and/or Record Keeping Requirements

**None**

### IV. Reporting Requirements

**None**

### V. Testing Requirements

**1.** Compliance with the particulate matter emission limitation of 0.02 gr/dscf of exhaust gases shall be determined in accordance with Method 5 of 40 CFR Part 60, Appendix A. No testing is specifically required by this permit but, if appropriate, may be required pursuant to OAC rule 3745-15-04(A). Such testing may be required at opacity levels less than those required by the visible emissions limit in Section A.I.

**2.** Compliance with the particulate matter emission limitation of 3.23 tons per year shall be determined by calculations using a compilation of annual hours of operation of this emissions unit, the allowable PM emission rate of 0.02 gr/dscf and the maximum air flow rate of 4600 cubic feet per minute.

### VI. Miscellaneous Requirements

**None**

# Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** GEN CAT P&S DRYERS #2 & #3 (P086)

**Activity Description:** General Catalyst Dryers

## A. State and Federally Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| General catalyst dryers #1-#3 (process equipment) with two wet scrubbers, see A.2.a. | OAC rule 3745-17-11(B)(1) | Emissions of particulate matter shall not exceed 3.38 pounds per hour |
| General catalyst dryers #1-#3 (fuel burning equipment) | OAC rule 3745-17-10(A)(1) | Emissions of particulate matter shall not exceed 0.020 lb/MMBTU actual heat input |
| General catalyst dryers #1-#3 (all equipment) | OAC rule 3745-17-07(A)(1) | Visible particulate emissions from any stack shall not exceed 20% opacity as a six-minute average, except as provided by rule |

**2. Additional Terms and Conditions**

**2.a.** Dryer #2 vents to Viron scrubber #1. Dryer #3 vents to Viron scrubber #2. Dryer #1 is not controlled.

### II. Operational Restrictions

**1.a.** The pressure drop across each scrubber shall be continuously maintained at a value of not less than 1 inch of water at all times while the emissions unit is in operation.

**1.b** The scrubber water flow rate to each scrubber shall be continuously maintained at a value of not less than 2 gallons per minute at all times while the emissions unit is in operation.

**2.** The permittee shall burn only natural gas in this emissions unit.

## III. Monitoring and/or Record Keeping Requirements

**1.** The permittee shall properly install, operate and maintain equipment to continuously monitor the static pressure drop across the scrubber and the scrubber water flow rate while the emissions unit is in operation. The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall collect and record the following information once each day:

a. The pressure drop across each scrubber, in inches of water.

b. The scrubber water flow rate, in gallons per minute.

c. The operating times for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit.

**2.** For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

## IV. Reporting Requirements

**1.** The permittee shall submit deviation (excursion) reports that identify all periods of time during which the following scrubber parameters were not maintained at or above the required levels:

a. The static pressure drop across the scrubber.

b. The scrubber water flow rate.

**2.** The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

## V. Testing Requirements

**1.** Compliance with the particulate matter emission limitation of 3.38 pounds per hour shall be determined in accordance with OAC rule 3745-17-03(B)(10). No testing is specifically required by this permit but, if appropriate, may be required pursuant to OAC rule 3745-15-04(A). Such testing may be required at opacity levels less than those required by the visible emissions limit in Section A.I.

**2.** Compliance with the visible emission limitation shall be determined by using U.S. EPA Method 9, if required by the Ohio EPA.

**3.** Compliance with the particulate matter emission limitation of 0.020 lb/MMBTU actual heat input shall be determined in accordance with OAC rule 3745-17-03(B)(9). No testing is specifically required by this permit but, if appropriate, may be required pursuant to OAC rule 3745-15-04(A). Such testing may be required at opacity levels less than those required by the visible emissions limit in Section A.I.

## VI. Miscellaneous Requirements

**None**

## B. State Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| General catalyst dryers #1-#3 (process equipment) with two wet scrubbers. See B.2.a. | | |

**2. Additional Terms and Conditions**

**2.a.** Dryer #2 vents to Viron scrubber #1. Dryer #3 vents to Viron scrubber #2. Dryer #1 is not controlled.

### II. Operational Restrictions

**1.** The pH of the scrubber liquor shall be maintained within the range of 6 to 11 s.u.

### III. Monitoring and/or Record Keeping Requirements

**1.** The permittee shall properly operate and maintain equipment to continuously monitor and record the pH of the scrubber liquor while the emissions unit is in operation. The pH monitor and recorder shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall collect and record the following information each day:

a. The pH of the scrubber liquor, on a once per shift basis.

b. A log or record of operating time for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit.

### IV. Reporting Requirements

**1.** The permittee shall submit pH deviation (excursion) reports that identify all periods of time during which the scrubber liquor pH did not comply with the pH requirements specified above.

### V. Testing Requirements

**None**

### VI. Miscellaneous Requirements

**None**

# Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** #2 SHUTTLE KILN (E-92) (P089)

**Activity Description:** #2 Shuttle Kiln

## A. State and Federally Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| Shuttle kiln #2 with two fabric filter baghouses | OAC rule 3745-17-11(B)(1) | Emissions of particulate matter shall not exceed 0.551 pound per hour |
| | OAC rule 3745-17-07(A)(1) | Visible particulate emissions shall not exceed 20% opacity as a six-minute average, except as provided by rule |

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**None**

### III. Monitoring and/or Record Keeping Requirements

**1.** The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

### IV. Reporting Requirements

**1.** The permittee shall submit semiannual written reports which (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

## V. Testing Requirements

**1.** Compliance with the particulate matter emission limitation of 0.551 pound per hour shall be determined in accordance with OAC rule 3745-17-03(B)(10). No testing is specifically required by this permit but, if appropriate, may be required pursuant to OAC rule 3745-15-04(A). Such testing may be required at opacity levels less than those required by the visible emissions limit in Section A.I.

**2.** Compliance with the visible emission limitation shall be determined by using U.S. EPA Method 9, if required by the Ohio EPA.

## VI. Miscellaneous Requirements

**None**

## B. State Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| Shuttle kiln #2 with two fabric filter baghouses | OAC rule 3745-31-05<br>PTI 02-3232 | Emissions of particulate matter shall not exceed 0.55 pound per hour |

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**None**

### III. Monitoring and/or Record Keeping Requirements

**None**

### IV. Reporting Requirements

**None**

### V. Testing Requirements

**1.** Compliance with the particulate matter emission limitation of 0.55 pound per hour shall be determined in accordance with Method 5 of 40 CFR Part 60, Appendix A. No testing is specifically required by this permit but, if appropriate, may be required pursuant to OAC rule 3745-15-04(A). Such testing may be required at opacity levels less than those required by the visible emissions limit in Section A.I.

### VI. Miscellaneous Requirements

**None**

# Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** SPIN FLASH DRIER (E-100) (P094)

**Activity Description:** Spin Flash Dryer

## A. State and Federally Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| Spin flash dryer | OAC rule 3745-17-11(B)(1) | Emissions of particulate matter shall not exceed 3.07 pounds per hour |
| | OAC rule 3745-17-07(A)(1) | Visible particulate emissions from any stack shall not exceed 20% opacity as a six-minute average, except as provided by rule |

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**None**

### III. Monitoring and/or Record Keeping Requirements

**1.** The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

### IV. Reporting Requirements

**1.** The permittee shall submit semiannual written reports which (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

## V. Testing Requirements

**1.** Compliance with the particulate matter emission limitation of 3.07 pounds per hour shall be determined in accordance with OAC rule 3745-17-03(B)(10). No testing is specifically required by this permit but, if appropriate, may be required pursuant to OAC rule 3745-15-04(A). Such testing may be required at opacity levels less than those required by the visible emissions limit in Section A.I.

**2.** Compliance with the visible emission limitation shall be determined by using U.S. EPA Method 9, if required by the Ohio EPA.

## VI. Miscellaneous Requirements

**None**

## B. State Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**None**

### III. Monitoring and/or Record Keeping Requirements

**None**

### IV. Reporting Requirements

**None**

### V. Testing Requirements

**None**

### VI. Miscellaneous Requirements

**None**

# Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** COPPER CALCINER #2 (E-101) (P095)

**Activity Description:** Copper Calciner # 2, 4.0 MMBtu/hr, indirect-fired

## A. State and Federally Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| Copper calciner #2 (process equipment) with three fabric filter baghouses | OAC rule 3745-17-11(B)(1) | Emissions of particulate matter shall not exceed 1.51 pounds per hour |
| Copper calciner #2 (fuel burning equipment) | OAC rule 3745-17-10(A)(1) | Emissions of particulate matter shall not exceed 0.020 lb/MMBTU actual heat input |
| Copper calciner #2 (all equipment) | OAC rule 3745-17-07(A)(1) | Visible particulate emissions from any stack shall not exceed 20% opacity as a six-minute average, except as provided by rule |

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**1.** The pressure drop across each fabric filter baghouse shall be maintained within the range of 1 to 6 inches of water while the emissions unit is in operation.

**2.** The permittee shall burn only natural gas in this emissions unit.

### III. Monitoring and/or Record Keeping Requirements

**1.** The permittee shall properly operate and maintain equipment to monitor the pressure drop across each baghouse while the emissions unit is in operation. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across each baghouse on a daily basis.

**2.** For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

### IV. Reporting Requirements

**1.** The permittee shall submit pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse(s) did not comply with the allowable range specified above.

## IV. Reporting Requirements (continued)

**2.** The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

## V. Testing Requirements

**1.** Compliance with the particulate matter emission limitation of 1.51 pounds per hour shall be determined in accordance with OAC rule 3745-17-03(B)(10). No testing is specifically required by this permit but, if appropriate, may be required pursuant to OAC rule 3745-15-04(A). Such testing may be required at opacity levels less than those required by the visible emissions limit in Section A.I.

**2.** Compliance with the visible emission limitation shall be determined by using U.S. EPA Method 9, if required by the Ohio EPA.

**3.** Compliance with the particulate matter emission limitation of 0.020 lb/MMBTU actual heat input shall be determined in accordance with OAC rule 3745-17-03(B)(9). No testing is specifically required by this permit but, if appropriate, may be required pursuant to OAC rule 3745-15-04(A). Such testing may be required at opacity levels less than those required by the visible emissions limit in Section A.I.

## VI. Miscellaneous Requirements

**None**

## B. State Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| Copper calciner #2 with three fabric filter baghouses | OAC rule 3745-31-05<br>PTI 02-10043 | See B.I.2.a and B.I.2.b. |

**2. Additional Terms and Conditions**

**2.a** The emission of particulate matter shall not exceed 0.01 gr/dscf of exhaust gases and 0.31 pound per hour.

**2.b** Visible particulate emissions from any stack shall not exceed 5% opacity as a six-minute average.

### II. Operational Restrictions

**1.** The collection efficiency of the air pollution capture hoods for this emissions unit shall be sufficient to minimize or eliminate visible emissions of fugitive dust at all points of capture. The permittee shall maintain all hoods and enclosures in good operating condition. The collection efficiency shall be considered adequate if visible particulate emissions of fugitive dust do not exceed 20% opacity as a three-minute average.

### III. Monitoring and/or Record Keeping Requirements

**None**

### IV. Reporting Requirements

**None**

### V. Testing Requirements

**1.** Compliance with the particulate matter emission limitation of 0.01 gr/dscf of exhaust gases and 0.31 pound per hour shall be determined in accordance with Method 5 of 40 CFR Part 60, Appendix A.. No testing is specifically required by this permit but, if appropriate, may be required pursuant to OAC Rule 3745-15-04(A). Such testing may be required at opacity levels less than those required by the visible emissions limit in Section A.I.

**2.** Compliance with the stack visible emission limitation shall be determined by using U.S. EPA Method 9, if required by the Ohio EPA.

**3.** Compliance with the visible emission limitation in section B.II of these terms and conditions shall be determined in accordance with the following methods:

Test Method 9 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996, and the modifications listed in paragraphs (B)(3)(a) and (B)(3)(b) of OAC rule 3745-17-03.

### VI. Miscellaneous Requirements

**None**

# Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** BLDG 24 WEST TABLETTING (P097)

**Activity Description:** West Bldg. 24 Tabletting

## A. State and Federally Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| West Bldg. 24 tableting with two fabric filter baghouses and a wet scrubber | OAC rule 3745-17-11(B)(1) | Emissions of particulate matter shall not exceed 1.62 pounds per hour |
| | OAC rule 3745-17-07(A)(1) | Visible particulate emissions shall not exceed 20% opacity as a six-minute average, except as provided by rule |

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**None**

### III. Monitoring and/or Record Keeping Requirements

**1.** The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

### IV. Reporting Requirements

**1.** The permittee shall submit semiannual written reports which (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

## V. Testing Requirements

**1.** Compliance with the particulate matter emission limitation of 1.62 pounds per hour shall be determined in accordance with OAC rule 3745-17-03(B)(10). No testing is specifically required by this permit but, if appropriate, may be required pursuant to OAC rule 3745-15-04(A). Such testing may be required at opacity levels less than those required by the visible emissions limit in Section A.I.

**2.** Compliance with the visible emission limitation shall be determined by using U.S. EPA Method 9, if required by the Ohio EPA.

## VI. Miscellaneous Requirements

**None**

## B. State Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**None**

### III. Monitoring and/or Record Keeping Requirements

**None**

### IV. Reporting Requirements

**None**

### V. Testing Requirements

**None**

### VI. Miscellaneous Requirements

**None**

# Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** BLDG 25 EAST TABLETTING (P098)

**Activity Description:** East Bldg.25 Tabletting

## A. State and Federally Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| East Bldg. 25 tableting, with a fabric filter baghouse | OAC rule 3745-17-11(B)(1) | Emissions of particulate matter shall not exceed 1.15 pounds per hour |
| | OAC rule 3745-17-07(A)(1) | Visible particulate emissions shall not exceed 20% opacity as a six-minute average, except as provided by rule |

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**None**

### III. Monitoring and/or Record Keeping Requirements

**1.** The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

### IV. Reporting Requirements

**1.** The permittee shall submit semiannual written reports which (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

## V. Testing Requirements

**1.** Compliance with the particulate matter emission limitation of 1.15 pounds per hour shall be determined in accordance with OAC rule 3745-17-03(B)(10). No testing is specifically required by this permit but, if appropriate, may be required pursuant to OAC rule 3745-15-04(A). Such testing may be required at opacity levels less than those required by the visible emissions limit in Section A.I.

**2.** Compliance with the visible emission limitation shall be determined by using U.S. EPA Method 9, if required by the Ohio EPA.

## VI. Miscellaneous Requirements

**None**

## B. State Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**None**

### III. Monitoring and/or Record Keeping Requirements

**None**

### IV. Reporting Requirements

**None**

### V. Testing Requirements

**None**

### VI. Miscellaneous Requirements

**None**

# Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** PK BLENDER #2 (E-103) (P099)

**Activity Description:** 65 Cubic Foot PK Blender

## A. State and Federally Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| 65 cubic foot PK blender #2 with a fabric filter baghouse and a wet scrubber | OAC rule 3745-17-11(B)(1) | Emissions of particulate matter shall not exceed 3.48 pounds per hour |
| | OAC rule 3745-17-07(A)(1) | Visible particulate emissions shall not exceed 20% opacity as a six-minute average, except as provided by rule |

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**None**

### III. Monitoring and/or Record Keeping Requirements

**1.** The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stacks serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

### IV. Reporting Requirements

**1.** The permittee shall submit semiannual written reports which (a) identify all days during which any visible particulate emissions were observed from the stacks serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

## V. Testing Requirements

**1.** Compliance with the particulate matter emission limitation of 3.48 pounds per hour shall be determined in accordance with OAC rule 3745-17-03(B)(10). No testing is specifically required by this permit but, if appropriate, may be required pursuant to OAC rule 3745-15-04(A). Such testing may be required at opacity levels less than those required by the visible emissions limit in Section A.I.

**2.** Compliance with the visible emission limitation shall be determined by using U.S. EPA Method 9, if required by the Ohio EPA.

## VI. Miscellaneous Requirements

**None**

## B. State Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| 65 cubic foot PK blender #2 with a fabric filter baghouse and a wet scrubber | OAC 3745-31-05<br>PTI 02-11383 | Emissions of particulate matter from fabric filter baghouse shall not exceed 0.01 gr/dscf of exhaust gases and 0.17 lb/hr.<br><br>Emissions of particulate matter from scrubber shall not exceed 0.03 gr/dscf of exhaust gases and 0.25 lb/hr.<br><br>Total particulate matter emissions shall not exceed 1.88 tpy.<br><br>Visible particulate emissions shall not exceed 5% opacity as a six-minute average. |

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**1.** The collection efficiency of the air pollution capture hoods for emissions unit P099 shall be sufficient to minimize or eliminate visible particulate emissions of fugitive dust at all points of capture. Applicant shall maintain all hoods and enclosures in good operating condition. The collection efficiency shall be considered adequate if visible particulate emissions of fugitive dust do not exceed 20% opacity as a three-minute average.

**2.** The pressure drop across the scrubber shall be continuously maintained at a value of not less than 2 inches of water at all times while the emissions unit is in operation.

The scrubber water flow rate shall be continuously maintained at the value (gallons per minute) recommended by the manufacturer at all times while the emissions unit is in operation.

**3.** The pressure drop across the baghouse shall be maintained within the range of 3 to 5 inches of water while the emissions unit is in operation.

## III. Monitoring and/or Record Keeping Requirements

**1.** The permittee shall properly operate and maintain equipment to continuously monitor the static pressure drop across the scrubber and the scrubber water flow rate while the emissions unit is in operation. The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall collect and record the following information once each day:

a. The pressure drop across the scrubber, in inches of water.

b The scrubber water flow rate, in gallons per minute.

**2.** The permittee shall properly operate and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the baghouse on a daily basis.

## IV. Reporting Requirements

**1.** The permittee shall submit deviation (excursion) reports that identify all periods of time during which the following scrubber parameters were not maintained at or above the required levels:

a. The static pressure drop across the scrubber.

b. The scrubber water flow rate.

**2.** The permittee shall submit pressure drop deviation (excursion) reports that identify that all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above.

## V. Testing Requirements

**1.** Compliance with the emission limitations in section B.I of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limit for PM: 0.01 gr/dscf of exhaust gases from fabric filter and 0.17 lb/hr

Applicable compliance method: Compliance with the above limitation shall be demonstrated by stack testing using the procedures of U.S. EPA reference Method 5, if required by the Ohio EPA.

b. Emission Limit for PM: 0.03 gr/dscf of exhaust gases from scrubber and 0.25 lb/hr

Applicable compliance method: Compliance with the above limitation shall be demonstrated by stack testing using the procedures of U.S. EPA reference Method 5, if required by the Ohio EPA.

c. Emission Limit: 1.88 tons per year PM

Applicable compliance method: Compliance with the above limitation shall be demonstrated by calculations, using the design control efficiency of the fabric filter and the amount of material collected by the fabric filter.

d. Emission Limit: Visible emissions not to exceed 5% opacity as a six-minute average from any stack

Applicable compliance method: Compliance with the above limitation shall be demonstrated by U.S. EPA reference Method 9.

## V. Testing Requirements (continued)

**2.** Compliance with the visible emission limitation in section B.II of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limit: Visible emissions not to exceed 20% opacity as a three-minute average

Applicable compliance method: Test Method 9 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996, and the modifications listed in paragraphs (B)(3)(a) and (B)(3)(b) of OAC rule 3745-17-03.

## VI. Miscellaneous Requirements

**None**

# Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** TUNNEL KILN #2 (E-8) (P100)

**Activity Description:** Natural gas fired tunnel kiln in Bldg. 10, 2.8 MMBtu/hr, direct-fired

## A. State and Federally Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| Tunnel kiln #2 in bld. 10, with a fabric filter baghouse | OAC rule 3745-17-11(B)(1) | Emissions of particulate matter shall not exceed 1.07 pounds per hour |
| | OAC rule 3745-17-07(A)(1) | Visible particulate emissions shall not exceed 20% opacity as a six-minute average, except as provided by rule |

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**None**

### III. Monitoring and/or Record Keeping Requirements

**1.** The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

### IV. Reporting Requirements

**1.** The permittee shall submit semiannual written reports which (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

## V. Testing Requirements

**1.** Compliance with the particulate matter emission limitation of 1.07 pounds per hour shall be determined in accordance with OAC rule 3745-17-03(B)(10). No testing is specifically required by this permit but, if appropriate, may be required pursuant to OAC rule 3745-15-04(A). Such testing may be required at opacity levels less than those required by the visible emissions limit in Section A.I.

**2.** Compliance with the visible emission limitation shall be determined by using U.S. EPA Method 9, if required by the Ohio EPA.

## VI. Miscellaneous Requirements

**None**

## B. State Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**None**

### III. Monitoring and/or Record Keeping Requirements

**None**

### IV. Reporting Requirements

**None**

### V. Testing Requirements

**None**

### VI. Miscellaneous Requirements

**None**

# Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** TUNNEL KILN #3 (E-8) (P101)

**Activity Description:** Natural gas fired tunnel kiln in Bldg. 10, 2.8 MMBtu/hr, direct-fired

## A. State and Federally Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| Tunnel kiln #3 in bld. 10, with a fabric filter baghouse | OAC rule 3745-17-11(B)(1) | Emissions of particulate matter shall not exceed 1.07 pounds per hour |
| | OAC rule 3745-17-07(A)(1) | Visible particulate emissions shall not exceed 20% opacity as a six-minute average, except as provided by rule |

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**None**

### III. Monitoring and/or Record Keeping Requirements

**1.** The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

### IV. Reporting Requirements

**1.** The permittee shall submit semiannual written reports which (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

## V. Testing Requirements

**1.** Compliance with the particulate matter emission limitation of 1.07 pounds per hour shall be determined in accordance with OAC rule 3745-17-03(B)(10). No testing is specifically required by this permit but, if appropriate, may be required pursuant to OAC rule 3745-15-04(A). Such testing may be required at opacity levels less than those required by the visible emissions limit in Section A.I.

**2.** Compliance with the visible emission limitation shall be determined by using U.S. EPA Method 9, if required by the Ohio EPA.

## VI. Miscellaneous Requirements

**None**

## B. State Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**None**

### III. Monitoring and/or Record Keeping Requirements

**None**

### IV. Reporting Requirements

**None**

### V. Testing Requirements

**None**

### VI. Miscellaneous Requirements

**None**

# Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** ROTARY CALCINER #2 (P102)

**Activity Description:** GENERAL CATALYST CALCINER # 2 IN BLDG. 31

## A. State and Federally Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| Rotary calciner #2 in bldg. 31 with a fabric filter baghouse (process equipment) | OAC rule 3745-17-11(B)(1) | Emissions of particulate matter shall not exceed 1.62 pounds per hour |
| Rotary calciner #2 in bldg. 31(fuel burning equipment) | OAC rule 3745-17-10(A)(1) | Emissions of particulate matter shall not exceed 0.020 lb/MMBTU actual heat input |
| Rotary calciner #2 in bldg. 31(all equipment) | OAC rule 3745-17-07(A)(1) | Visible particulate emissions shall not exceed 20% opacity as a six-minute average, except as provided by rule |

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**1.** The permittee shall burn only natural gas in this emissions unit.

### III. Monitoring and/or Record Keeping Requirements

**1.** For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

**2.** Monitoring and/or Record Keeping Requirements for process equipment

The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

## III. Monitoring and/or Record Keeping Requirements (continued)

**3.** On at least one day of each calendar quarter (January through March, April through June, July through September, and October through December), the permittee shall determine the opacity of the stack gases, in accordance with U.S. EPA Reference Method 9, for a period of not less than sixty consecutive minutes while the emissions unit is in operation. The process weight rate and the type of material being calcined shall be recorded for the period during which the stack gases' opacity was recorded.

## IV. Reporting Requirements

**1.** The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

**2.** The permittee shall submit semiannual written reports which (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

**3.** The permittee shall submit opacity deviation (excursion) reports that identify all periods of time during which the emissions unit did not comply with the opacity limit specified above. These reports shall include the average opacity observed, in six-minute blocks, the process weight rate during the observation period and the type of material being processed.

## V. Testing Requirements

**1.** Compliance with the particulate matter emission limitation of 1.62 pounds per hour shall be determined in accordance with OAC rule 3745-17-03(B)(10). No testing is specifically required by this permit but, if appropriate, may be required pursuant to OAC rule 3745-15-04(A). Such testing may be required at opacity levels less than those required by the visible emissions limit in Section A.I.

**2.** Compliance with the visible emission limitation shall be determined by using U.S. EPA Method 9.

**3.** Compliance with the particulate matter emission limitation of 0.020 lb/MMBTU actual heat input shall be determined in accordance with OAC rule 3745-17-03(B)(9). No testing is specifically required by this permit but, if appropriate, may be required pursuant to OAC rule 3745-15-04(A). Such testing may be required at opacity levels less than those required by the visible emissions limit in Section A.I.

## VI. Miscellaneous Requirements

**None**

## B. State Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| Rotary calciner #2 in bldg. 31 with F-1 scrubber, Trimer scrubber and Salem-Engelhard SCR unit for NOx control (process equipment) | | |

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**1.** NOx emissions from this emissions unit shall be controlled by one of the following air pollution control equipment: the F-1 scrubber, the Trimer Scrubber or the Salem-Engelhard Selective Catalytic Reduction (SCR) unit.

**2.** Trimer Scrubber Operational Restrictions

The pressure drop across the second stage of the scrubber shall be continuously maintained between 1 and 3 inches of water at all times while the emissions unit is in operation.

The pressure drop across the third stage of the scrubber shall be continuously maintained between 3 and 5 inches of water at all times while the emissions unit is in operation.

The scrubber water flow rate to each stage of the scrubber shall be continuously maintained at a value of not less than 50 gallons per minute at all times while the emissions unit is in operation.

**3.** Trimer pH Operational Restrictions

The pH of the scrubber liquor shall be maintained between 10 and 12 s.u.

## III. Monitoring and/or Record Keeping Requirements

**1.** Trimer Scrubber Monitoring and Recordkeeping Requirements

The permittee shall properly operate and maintain equipment to continuously monitor the static pressure drop across the scrubber stages and the scrubber water flow rate to each stage while the emissions unit is in operation. The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall collect and record the following information each day (at a minimum):

a. The pressure drop across each stage of the scrubber, in inches of water, on a once per shift basis.

b. The scrubber water flow rate to each stage of the scrubber, in gallons per minute, on a once per shift basis.

c. The operating times for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit.

**2.a.** Trimer scrubber pH Monitoring and Recordkeeping Requirements

The permittee shall properly operate and maintain equipment to continuously monitor and record the pH of the scrubber liquor while the emissions unit is in operation. The pH monitor and recorder shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

**2.b.** The permittee shall record the pH of the scrubber liquor on a once per shift basis.

## IV. Reporting Requirements

**1.** Trimer Scrubber Reporting Requirements

The permittee shall submit deviation (excursion) reports that identify all periods of time during which the following scrubber parameters were not maintained at or above the required levels:

a. The static pressure drop across each scrubber stage.

b. The scrubber water flow rate to each stage.

**2.** Trimer Scrubber pH Reporting Requirements

The permittee shall submit pH deviation (excursion) reports that identify all periods of time during which the scrubber liquor pH did not comply with the pH requirements specified above.

## V. Testing Requirements

**None**

## VI. Miscellaneous Requirements

**None**

# Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** ROTARY CALCINER #3 (P103)

**Activity Description:** GENERAL CATALYST CALCINER # 3 IN BLDG. 31

## A. State and Federally Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| Rotary calciner #3 in bldg. 31 with fabric filter baghouse (process equipment) | OAC rule 3745-17-11(B)(1) | Emissions of particulate matter shall not exceed 1.62 pounds per hour |
| Rotary calciner #3 in bldg. 31(fuel burning equipment) | OAC rule 3745-17-10(A)(1) | Emissions of particulate matter shall not exceed 0.020 lb/MMBTU actual heat input |
| Rotary calciner #3 in bldg. 31(all equipment) | OAC rule 3745-17-07(A)(1) | Visible particulate emissions shall not exceed 20% opacity as a six-minute average, except as provided by rule |

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**1.** The permittee shall burn only natural gas in this emissions unit.

### III. Monitoring and/or Record Keeping Requirements

**1.** For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

**2.** Monitoring and/or Record Keeping Requirements for process equipment

The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;
b. whether the emissions are representative of normal operations;
c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
d. the total duration of any visible emission incident; and
e. any corrective actions taken to eliminate the visible emissions.

## III. Monitoring and/or Record Keeping Requirements (continued)

**3.** On at least one day of each calendar quarter (January through March, April through June, July through September, and October through December), the permittee shall determine the opacity of the stack gases, in accordance with U.S. EPA Reference Method 9, for a period of not less than sixty consecutive minutes while the emissions unit is in operation. The process weight rate and the type of material being calcined shall be recorded for the period during which the stack gases' opacity was recorded.

## IV. Reporting Requirements

**1.** The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

**2.** The permittee shall submit semiannual written reports which (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.

**3.** The permittee shall submit opacity deviation (excursion) reports that identify all periods of time during which the emissions unit did not comply with the opacity limit specified above. These reports shall include the average opacity observed, in six-minute blocks, the process weight rate during the observation period and the type of material being processed.

## V. Testing Requirements

**1.** Compliance with the particulate matter emission limitation of 1.62 pounds per hour shall be determined in accordance with OAC rule 3745-17-03(B)(10). No testing is specifically required by this permit but, if appropriate, may be required pursuant to OAC rule 3745-15-04(A). Such testing may be required at opacity levels less than those required by the visible emissions limit in Section A.I.

**2.** Compliance with the visible emission limitation shall be determined by using U.S. EPA Method 9, if required by the Ohio EPA.

**3.** Compliance with the particulate matter emission limitation of 0.020 lb/MMBTU actual heat input shall be determined in accordance with OAC rule 3745-17-03(B)(9). No testing is specifically required by this permit but, if appropriate, may be required pursuant to OAC rule 3745-15-04(A). Such testing may be required at opacity levels less than those required by the visible emissions limit in Section A.I.

## VI. Miscellaneous Requirements

**None**

## B. State Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| Rotary calciner #3 in bldg. 31 with F-1 scrubber, Trimer scrubber and Salem-Engelhard SCR unit for NOx control (process equipment) | | |

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**1.** NOx emissions from this emissions unit shall be controlled by one of the following air pollution control equipment: the F-1 scrubber, the Trimer Scrubber or the Salem-Engelhard Selective Catalytic Reduction (SCR) unit.

**2.** Trimer Scrubber Operational Restrictions

The pressure drop across the second stage of the scrubber shall be continuously maintained between 1 and 3 inches of water at all times while the emissions unit is in operation.

The pressure drop across the third stage of the scrubber shall be continuously maintained between 3 and 5 inches of water at all times while the emissions unit is in operation.

The scrubber water flow rate to each stage of the scrubber shall be continuously maintained at a value of not less than 50 gallons per minute at all times while the emissions unit is in operation.

**3.** Trimer pH Operational Restrictions

The pH of the scrubber liquor shall be maintained between 10 and 12 s.u.

## III. Monitoring and/or Record Keeping Requirements

**1.** Trimer Scrubber Monitoring and Record keeping Requirements

The permittee shall properly operate and maintain equipment to continuously monitor the static pressure drop across the scrubber stages and the scrubber water flow rate to each stage while the emissions unit is in operation. The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall collect and record the following information each day (at a minimum):

a. The pressure drop across each stage of the scrubber, in inches of water, on a once per shift basis.

b. The scrubber water flow rate to each stage of the scrubber, in gallons per minute, on a once per shift basis.

c. The operating times for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit.

**2.a.** Trimer scrubber pH Monitoring and Recordkeeping Requirements

The permittee shall properly operate and maintain equipment to continuously monitor and record the pH of the scrubber liquor while the emissions unit is in operation. The pH monitor and recorder shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

**2.b.** The permittee shall record the pH of the scrubber liquor on a once per shift basis.

## IV. Reporting Requirements

**1.** Trimer Scrubber Reporting Requirements

The permittee shall submit deviation (excursion) reports that identify all periods of time during which the following scrubber parameters were not maintained at or above the required levels:

a. The static pressure drop across each scrubber stage.

b. The scrubber water flow rate to each stage.

**2.** Trimer Scrubber pH Reporting Requirements

The permittee shall submit pH deviation (excursion) reports that identify all periods of time during which the scrubber liquor pH did not comply with the pH requirements specified above.

## V. Testing Requirements

**None**

## VI. Miscellaneous Requirements

**None**

# Part III - Terms and Conditions for Emissions Units

**Emissions Unit ID:** IRON CATALYST MIXING (E-104) (P104)

**Activity Description:** IRON CATALYST MIXING

## A. State and Federally Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| Iron catalyst mixing line with a fabric filter baghouse | OAC rule 3745-17-11(B)(1) | Emissions of particulate matter shall not exceed 2.4 pounds per hour |
| | OAC rule 3745-17-07(A)(1) | Visible particulate emissions shall not exceed 20% opacity as a six minute average except as provided by rule |

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**1.** The pressure drop across the baghouse shall be maintained within the range of 3 to 5 inches of water while the emissions unit is in operation.

### III. Monitoring and/or Record Keeping Requirements

**1.** The permittee shall properly operate and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the baghouse on a daily basis.

### IV. Reporting Requirements

**1.** The permittee shall submit pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above.

### V. Testing Requirements

**1.** Compliance with the particulate matter emission limitation of 2.4 pounds per hour shall be determined in accordance with OAC rule 3745-17-03(B)(10). No testing is specifically required by this permit but, if appropriate, may be required pursuant to OAC rule 3745-15-04(A). Such testing may be required at opacity levels less than those required by the visible emissions limit in Section A.I.

**2.** Compliance with the visible emission limitation shall be determined by using U.S. EPA Method 9, if required by the Ohio EPA.

## VI. Miscellaneous Requirements

**None**

## B. State Enforceable Section

### I. Applicable Emissions Limitations and/or Control Requirements

**1.** The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

| Operations, Property, and/or Equipment | Applicable Rules/ Requirements | Applicable Emissions Limitations/Control Measures |
|---|---|---|
| Iron catalyst mixing line with a fabric filter baghouse | OAC 3745-31-05<br>PTI 02-12141 | Emissions of particulate matter shall not exceed 0.01 gr/dscf of exhaust gases from fabric filter baghouse, 0.34 pound per hour and 1.5 tons per year.<br><br>Visible particulate emissions from baghouse stack shall not exceed 5% opacity as a six minute average. |

**2. Additional Terms and Conditions**

**None**

### II. Operational Restrictions

**1.** The collection efficiency of the air pollution capture hoods for emissions unit P104 shall be sufficient to minimize or eliminate visible particulate emissions of fugitive dust at all points of capture. The permittee shall maintain all hoods and enclosures in good operating condition. The collection efficiency shall be considered adequate if visible particulate emissions of fugitive dust do not exceed 0% opacity from any building egress points.

### III. Monitoring and/or Record Keeping Requirements

**None**

### IV. Reporting Requirements

**None**

## V. Testing Requirements

**1.** Compliance with the emission limitations in section B.I of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limit for PM: 0.01 gr/dscf of exhaust gases from fabric filter and 0.34 lb/hr

Applicable compliance method: Compliance with the above limitation shall be demonstrated by stack testing using the procedures of U.S. EPA reference Method 5, if required by the Ohio EPA.

b. Emission Limit: 1.5 tons per year PM

Applicable compliance method: Compliance with the above limitation shall be demonstrated by calculations, using the design control efficiency of the fabric filter and the amount of material collected by the fabric filter.

c. Emission Limit: Visible emissions not to exceed 5% opacity from baghouse stack

Applicable compliance method: Compliance with the above limitation shall be demonstrated by U.S. EPA reference Method 9.

**2.** Compliance with the visible emission limitation in section B.II of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limit Visible emissions not to exceed 0% opacity from any building egress point

Applicable compliance method: Compliance with the above limitation shall be demonstrated by U.S. EPA reference Method 22.

## VI. Miscellaneous Requirements

**None**

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