

# STATE OF TENNESSEE AIR POLLUTION CONTROL BOARD DEPARTMENT OF ENVIRONMENT AND CONSERVATION NASHVILLE, TENNESSEE

## PERMIT TO OPERATE AIR CONTAMINANT SOURCE(S)

**Permit Number:** 078760

Facility (Permittee): AHF, LLC

d/b/a Crossville, Inc. (Plant 1)

**Facility ID:** 18-0086

**Facility Address:** 346 Sweeney Drive, Crossville

**Cumberland County** 

Facility Classification: True Minor

Federal Requirements: 40 CFR 60, Subpart UUU

40 CFR 63, Subpart RRRRRR

Facility Description: Porcelain Tile Manufacturing Operation

Operating Permit 078760 consisting of 49 pages is hereby issued on April 18, 2024, pursuant to the Tennessee Air Quality Act and by the Technical Secretary, Tennessee Air Pollution Control Board, Department of Environment and Conservation. This permit expires on March 1, 2034, The holder of this permit shall comply with the conditions contained in this permit as well as all applicable provisions of the Tennessee Air Pollution Control Regulations (TAPCR).

Michelle W. Owenby
Technical Secretary

Tennessee Air Pollution Control Board

No Authority is Granted by this Permit to Operate, Construct, or Maintain any Installation in Violation of any Law, Statute, Code, Ordinance, Rule, or Regulation of the State of Tennessee or any of its Political Subdivisions.

Rev. 10/12/2021

# Section I – Sources Included in this Operating Permit

FACILITY DESCRIPTION			
Source Number	Source Description	Status	Control
03	Two 2.77 MMBtu/hr. Natural Gas-Fired Tunnel Kilns (K-1 & K-2) with Propane as Back-Up	Existing	None
04	One Natural Gas-Fired Spray Dryer #1	Existing	Cyclone and wet scrubber
11	Transfer Points from Conveyor to Conveyor and Drop Points into Press Silo	Existing	Baghouse
12	One Natural Gas-Fired Spray Dryer for Ceramic/Clay Press Body	Existing	Cyclone and Wet Scrubber
13	One Natural Gas-Fired Roller Kiln (#4)	Existing	None
16	Vertical Talc Silo	Existing	Fabric Filter Bin Vent
23	One Mori Natural Gas-Fired Roller Kiln	Existing	None
24	One Siti Natural Gas-Fired Roller Kiln	Existing	None
26	Three Tile Presses and Two (2) Tile Glazing Lines	Existing	Baghouse
28	Four Tile Glazing Lines	Existing	Four Baghouses
29	Kiln #4 Loading Operation and Three Glaze Application Operations -Glazing Line at entrance to Kiln #4, Press #6 Tile Glazing Booth, and Trim Press #1 Glazing Booth	Existing	Baghouse
30	Stain Milling Operation	Existing	Baghouse

# Section II - Permit Record

Permit Type	Description of Permit Action	Issue Date
Initial	Renewal and consolidation of all sources in one permit	April 18, 2024

# **Section III - General Permit Conditions**

## **G1.** Responsible Person

The application that was utilized in the preparation of this operating permit is dated December 30, 2020, with additional information dated October 1, 2021, September 23, 2022, November 6, 2023, March 11, 2024, and April 3, 2024, and is signed by Michael Briggs, EHS Manager, the Responsible Person for the permittee. A notification dated November 6, 2023, from the permittee to the Division that stated Greg Mather is the new Responsible Person at this facility. The Responsible Person may be the owner, president, vice-president, general partner, plant manager, environmental/health/safety coordinator, or other person that is able to represent and bind the facility in environmental permitting affairs. If this Responsible Person terminates their employment or is assigned different duties and is no longer the person to represent and bind the permittee in environmental permitting affairs, the new Responsible Person for the permittee shall notify the Technical Secretary of the change in writing. The Notification shall include the name and title of the new Responsible Person assigned by the permittee to represent and bind the permittee in environmental permitting affairs, and the date the new Responsible Person was assigned these duties.

Page 2 of 49 RDA-1298

Should a change in the Responsible Person occur, the new Responsible Person must submit the Notification provided in Appendix 1 of this permit no later than 30 days after being assigned as the Responsible Person. A separate notification shall be submitted for each subsequent change in Responsible Person.

TAPCR 1200-03-09-.03(8)

# **G2.** Application and Agreement Letters

This source shall operate in accordance with the terms of this permit, the information submitted in the approved permit application referenced in **Condition G1**, and any documented agreements made with the Technical Secretary.

TAPCR 1200-03-09-.01(1)(d)

#### **G3.** Submittals

Unless otherwise specified within this permit, the permittee shall submit, preferably via email and in Adobe Portable Document format (PDF), all applicable plans, checklists, certifications, notifications, test protocols, reports, and applications to the attention of the following Division Programs at the email addresses indicated in the table below:

Permitting Program	Compliance Validation Program	Field Services Program
<ul> <li>Notifications</li> <li>Startup certifications</li> <li>Applications</li> <li>NSPS reports</li> <li>MACT/GACT/NESHAP reports</li> <li>Emission Statements</li> </ul>	<ul> <li>Test protocols</li> <li>Emission test reports</li> <li>Visible emission evaluation reports</li> </ul>	Semiannual reports     Annual compliance certifications/status reports
Division of Air Pollution Control William R. Snodgrass TN Tower, 15 <sup>th</sup> Floor 312 Rosa L. Parks Avenue Nashville, TN 37243 <u>Air.Pollution.Control@tn.gov</u>		Division of Air Pollution Control Cookeville Environmental Field Office 1221 South Willow Ave. Cookeville, TN 38506 APC.CookEFO@tn.gov

The permittee shall submit the information identified above as requested in this permit. In lieu of submitting this information to the email addresses above, the permittee may submit the information to the attention of the respective Division Programs at the mailing addresses listed above.

TAPCR 1200-03-09-.03(8)

# **G4.** Notification of Changes

The permittee shall notify the Technical Secretary for any of the following changes to a permitted air contaminant source which would not be a modification requiring a new construction permit:

- change in air pollution control equipment that does not result in an increase or otherwise meet the definition of a modification
- change in stack height or diameter

Page 3 of 49 RDA-1298

• change in exit velocity of more than 25 percent or exit temperature of more than 15 percent based on absolute temperature.

The permittee must submit the Notification provided in Appendix 2 of this permit 30 days before the change is commenced.

TAPCR 1200-03-09-.02(7)

#### **G5.** Permit Transference

A. This permit is not transferable from one air contaminant source to another air contaminant source or from one location to another location. The permittee must submit a construction permit application for a new source to the Permitting Program not less than 90 days prior to the estimated starting date of these events. If the new source will be subject to major New Source Review, the application must be submitted not less than 120 days in advance of the estimated starting date of these events.

TAPCR 1200-03-09-.03(6)(b) and 1200-03-09-.01(1)(b)

B. In the event an ownership change occurs at this facility, the new owner must submit the notification provided in Appendix 3 of this permit. The written notification must be submitted by the new owner to the Permitting Program no later than 30 days after the ownership change occurs. If the change in ownership results in a change in Responsible Person for the facility, notification of the change in Responsible Person must also be submitted, as specified in **Condition G1**.

TAPCR 1200-03-09-.03(6)(a) and (b)

#### **G6.** Operating Permit Renewal Application Submittal

A. The permittee shall apply for an operating permit renewal not less than 60 days prior to the permit's expiration date.

TAPCR 1200-03-09-.02(3)(a)

B. Operation of each air contaminant source shall be in accordance with the provisions and stipulations set forth in this permit, all provisions of the Tennessee Division of Air Pollution Control Regulations, and all provisions of the Tennessee Air Quality Act.

TAPCR 1200-03-09-.02(6)

#### G7. Fees

The air contaminant source(s) identified in this permit shall comply with the requirements for payment of applicable annual emission fees to the Tennessee Division of Air Pollution Control based on the Administrative Fees Schedule I provided in Appendix 4 of this permit. The fee must be paid to the Division in full by the first day of the month that the fee is due (determined from Appendix 4). (Note: not all facilities are required to pay annual emission fees)

TAPCR 1200-03-26-.02

Page 4 of 49 RDA-1298

# **G8.** General Recordkeeping Requirements

A. All recordkeeping requirements for all data required to be recorded shall follow the following schedules:

For Daily Recordkeeping	For Weekly Recordkeeping	For Monthly Recordkeeping
No later than seven days from the end of the day for which the data is required.	No later than seven days from the end of the week for which the data is required.	No later than 30 days from the end of the month for which the data is required.

B. The information contained in logs, records, and submittals required by this permit shall be kept at the facility's address, unless otherwise noted, and provided to the Technical Secretary or a Division representative upon request. Computer-generated logs are acceptable. Compliance is assured by retaining the logs, records, and submittals specified in this permit for a period of not less than five years at the facility's address.

TAPCR 1200-03-10-.02(2)(a)

# **G9.** Routine Maintenance Requirements

The permittee shall maintain and repair the emission source, associated air pollution control device(s), and compliance assurance monitoring equipment as required to maintain and assure compliance with the specified emission limits.

TAPCR 1200-03-09-.03(8)

**Compliance Method:** Records of all repair and maintenance activities required above shall be recorded in a suitable permanent form and kept available for inspection by the Division. These records must be retained for a period of not less than five years. The date each maintenance and repair activity began shall be entered in the log no later than seven days following the start of the repair or maintenance activity, and the completion date shall be entered in the log no later than seven days after activity completion.

## **G10.** Visible and Fugitive Emissions

A. Unless otherwise specified, visible emissions from this facility shall not exhibit greater than 20% opacity, except for one six-minute period in any one hour period, and for no more than four six-minute periods in any 24 hour period. A stack is defined as any chimney, flue, conduit, exhaust, vent, or opening of any kind whatsoever, capable of, or used for, the emission of air contaminants.

TAPCR 1200-03-05-.01(1) and 1200-03-05-.03(6)

**Compliance Method:** When required to demonstrate compliance, visible emissions shall be determined by EPA Method 9, as published in the current 40 CFR 60, Appendix A (six-minute average).

- B. The permittee shall not cause, suffer, allow, or permit any materials to be handled, transported, or stored; or a building, its appurtenances, or a road to be used, constructed, altered, repaired, or demolished without taking reasonable precautions to prevent particulate matter from becoming airborne. Reasonable precautions shall include, but are not limited to, the following:
  - (a) Use, where possible, of water or chemicals for control of dust in demolition of existing buildings or structures, construction operations, grading of roads, or the clearing of land;

Page 5 of 49 RDA-1298

- (b) Application of asphalt, water, or suitable chemicals on dirt roads, material stock piles, and other surfaces which can create airborne dusts;
- (c) Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty materials. Adequate containment methods shall be employed during sandblasting or other similar operations.

The permittee shall not cause, suffer, allow, or permit fugitive dust to be emitted in such manner to exceed five minutes per hour or 20 minutes per day as to produce a visible emission beyond the property line of the property on which the emission originates, excluding malfunction of equipment as provided in TAPCR 1200-03-20. A malfunction is defined as, any sudden and unavoidable failure of process equipment or for a process to operate in an abnormal and unusual manner. Failures that are caused by poor maintenance, careless operation, or any other preventable upset condition or preventable equipment breakdown shall not be considered malfunctions.

TAPCR 1200-03-08-.01(1) and 1200-03-08-.01(2)

**Compliance Method:** When required to demonstrate compliance, fugitive emissions shall be determined by Tennessee Visible Emissions Evaluation Method 4 as adopted by the Tennessee Air Pollution Control Board on April 16, 1986.

C. Fugitive emissions from roads and parking areas shall not exhibit greater than 10% opacity.

TAPCR 1200-03-08-.03

**Compliance Method:** When required to demonstrate compliance, fugitive emissions from roads and parking areas shall be determined by utilizing Tennessee Visible Emissions Evaluation (TVEE) Method 1, as adopted by the Tennessee Air Pollution Control Board on April 29, 1982, as amended on September 15, 1982, and August 24, 1984.

# **G11.** Facility-wide Limitations

The maximum emission rate from the entire facility for any single hazardous air pollutant (HAP), listed pursuant to Section 112(b) of the Federal Act, including emissions from all insignificant and exempt sources, shall not exceed **9.9** tons per year. Total emissions of all HAPs from the entire facility shall not exceed **24.9** tons per year. In the event that the emission rate(s) from the entire facility, including emissions from all insignificant and exempt sources, exceed these limits, the permittee shall provide written notification of the exceedance(s) to the Technical Secretary within fifteen days from the date of discovery.

TAPCR 1200-03-07-.07(2) and agreement letter dated April 3, 2024, from the permittee

**Compliance Method**: See source specific conditions as listed below.

Pollutant / Parameter	Capacity / Limit / Standard	Compliance Method*	TAPCR
Any Single HAP	9.9	See Conditions S3-4F, S3-4H, S13-4F, S13-4H, S23-4F, S23-4H, S24-4F, and S24-4H.	1200-03-0707(2) and the agreement letter March 11, 2024, from the permittee.
Combination HAPs	24.9		(Appendix 6)

Page 6 of 49 RDA-1298

\*At the time of permit issuance, the AHF Products dba Crossville, Inc. Plant 1 is reporting that there are no insignificant or exempt activities/emission units that emit any HAPs. If AHF Products dba Crossville, Inc. Plant 1 adds insignificant or exempt activities/emission units that emit HAPs the AHF Products dba Crossville, Inc. Plant 1 shall provide notification to the Division of the change in facility HAPs emissions at least 30 days prior to the installation of each insignificant activity/emission unit [TAPCR 1200-03-09-.04(4)(a)] or at least 30 days prior to the installation of each exempt air contaminant source [TAPCR 1200-03-09-.04(4)(b), (c), or (d)]. (Appendix 6)

# G12. NSPS/NESHAP/MACT/GACT Standards

The following source(s) are subject to and shall comply with all applicable requirements of each NSPS/NESHAP/MACT/GACT standard as indicated in the table below, including the General Provisions identified in **Appendices 9** and **10**.

Source ID	NESHAP/MACT/GACT	NSPS
3	40 CFR 63, Subpart RRRRRR	
12		40 CFR 60, Subpart UUU
13	40 CFR 63, Subpart RRRRRR	
23	40 CFR 63, Subpart RRRRRR	
24	40 CFR 63, Subpart RRRRRR	
26	40 CFR 63, Subpart RRRRRR	
28	40 CFR 63, Subpart RRRRRR	
29	40 CFR 63, Subpart RRRRRR	

TAPCR 1200-03-09-.03(8)

**Compliance Method:** Compliance methods are provided in the conditions in **Section V** of this permit.

# G13. VOC and NO<sub>X</sub> Emission Statement

Not Applicable

#### **G14.** Permit Supersedes Statement

This permit supersedes all previously issued permits for these sources.

TAPCR 1200-03-09-.03(8)

## **G15.** Source Testing Requirements

Not Applicable

## **Section IV – Federal and/or State Only Requirements**

See Source Specific Conditions.

Page 7 of 49 RDA-1298

# **Section V - Source Specific Permit Conditions**

Source Number	Source Description
03	Two 2.77 MMBtu/hr. Natural Gas-Fired Tunnel Kilns (K-1 & K-2) with Propane as Back-Up 40 CFR 63 Subpart RRRRR

# S3-1. Input Limitation(s) or Statement(s) of Design

A. The maximum material input rate for <u>both</u> tunnel kilns shall not exceed **8,700** pounds per hour of ceramic tiles on a daily average basis. Should the permittee need to modify the source in a manner that increases the design capacity, a construction permit shall be applied for and received in accordance with TAPCR 1200-03-09-.01 prior to making the change.

TAPCR 1200-03-09-.01(1)(d)

Compliance Method: Within 60 days of issuance of this permit, the permittee shall begin maintenance of a log of the daily input rate and operating hours of each kiln that readily provides the information required in the **Table A in Appendix 7**, or in an alternative format which provides the same information. The log shall be retained in accordance with **Condition G8**.

B. The total stated heat input design rate for <u>each</u> kiln is **2.77** MMBtu/hr. Should the permittee need to modify the source in a manner that increases the design heat input rate, a construction permit shall be applied for and received in accordance with TAPCR 1200-03-09-.01 prior to making the change.

TAPCR 1200-03-09-.03(8)

**Compliance Method**: The permittee shall maintain documentation to demonstrate compliance with this condition. Documentation may include, <u>but is not limited to</u>, purchase records, operating manuals, or a tag affixed to the unit by the manufacturer. These documents shall be kept readily available/accessible and made available upon request by the Technical Secretary or a Division representative.

C. Only natural gas or propane shall be used as fuel for both kilns.

TAPCR 1200-03-09-.03(8) and the application dated October 8, 2009, from the permittee.

**Compliance Method:** The permittee shall maintain documentation to demonstrate that only natural gas and propane are combusted in this source. Documentation may include, but is not limited to, equipment specifications, purchase records, or a tag affixed to the unit by the manufacturer. These documents shall be kept readily available/accessible and made available upon request by the Technical Secretary or a Division representative. If the permittee wishes to change the type of fuel used for this source, a construction permit must be applied for and obtained in accordance with TAPCR 1200-03-09-.01(1) prior to initiating the change.

#### S3-2. Production Limitation(s)

Not Applicable

Page 8 of 49 RDA-1298

## **S3-3.** Operating Hour Limitation(s)

Not Applicable

# S3-4. Emission Limitation(s)

A. Particulate matter (PM) emitted from <u>both</u> tunnel kilns combined shall not exceed **0.44** pounds per hour, on a daily average basis.

TAPCR 1200-03-07-.01(5) and the agreement letter dated April 3, 2024, from the permittee. (Appendix 6)

**Compliance Method:** Compliance with this emission limitation is based on compliance with the input rate (**Condition S3-1A**) and the emission factor developed during performance testing of tunnel kiln #1 conducted on February 12, 2009. Performance testing of kiln #1 resulted in an average emission factor of **0.000041** pounds of PM per pound of input material. Compliance with the input rate and the emission factor assure this emission limitation is not exceeded.

B. Sulfur dioxide (SO<sub>2</sub>) emitted from <u>both</u> tunnel kilns combined shall not exceed **3.38** pounds per hour total on a daily average basis.

TAPCR 1200-03-14-.01(3) and the agreement letter dated April 3, 2024, from the permittee. (**Appendix 6**)

**Compliance Method:** Compliance with this emission limitation is based on the input rate (**Condition S3-1A**) and the emission factor developed during performance testing of tunnel kiln #1 conducted on February 12, 2009. Performance testing of kiln #1 resulted in an average emission factor of **0.000311** pound of SO<sub>2</sub> per pound of input material.

C. Carbon monoxide (CO) emitted from <u>both</u> tunnel kilns combined shall not exceed **29.6** tons during any period of 12-consecutive months.

TAPCR 1200-03-07-.07(2)

**Compliance Method:** Compliance with this emission limitation is based on the input rate (**Condition S3-1A**) and the emission factor developed during performance testing of tunnel kiln #1 conducted on February 12, 2009. Performance testing of kiln #1 resulted in an average emission factor of **0.000621** pounds of CO per pound of input material. Compliance with the input rate and the emission factor assure these emission limitations are not exceeded.

D. Volatile organic compounds (VOCs) emitted from <u>both</u> tunnel kilns combined shall not exceed **10.2** tons during any period of 12-consecutive months.

TAPCR 1200-03-07-.07(2)

**Compliance Method:** Compliance with this emission limitation is based on the input rate (**Condition S3-1A**) and the emission factor of **0.43** pounds of VOC per ton of ceramic produced from AP-42, Chapter 11.7, Ceramic Products Manufacturing.

E. Nitrogen oxides (NOx) emitted from <u>both</u> tunnel kilns combined shall not exceed **13.7** tons during any period of 12-consecutive months.

TAPCR 1200-03-07-.07(2)

Page 9 of 49 RDA-1298

**Compliance Method:** Compliance with this emission limitation is based on the input rate (**Condition S3-1-A**) and the emission factor developed during performance testing of tunnel kiln #1 conducted on February 12, 2009. Performance testing of kiln #1 resulted in an average emission factor of **0.000287** pounds of NOx emissions per pound of input. Compliance with the input rate and the emission factor assure these emission limitations are not exceeded.

F. Hydrogen chloride (HCl) emitted from <u>both</u> tunnel kilns combined shall not exceed **0.20** pounds per hour, on a daily average basis.

TAPCR 1200-03-07-.07(2)

**Compliance Method:** Compliance with this emission limitation is based on the input rate (**Condition S3-1-A**) and the emission factor developed during performance testing of tunnel kiln #1 conducted on February 12, 2009. Performance testing of kiln #1 resulted in an average emission factor of **0.0000161** pounds of HCl per pound of input material. Compliance with the input rate and the emission factor assure this emission limitation shall not be exceeded.

G. Sulfuric acid mist (H<sub>2</sub>SO<sub>4</sub>) emitted from <u>both</u> tunnel kilns combined shall not exceed **0.20** pounds per hour, on a daily average basis.

TAPCR 1200-03-07-.07(2)

Compliance Method: Compliance with this emission limitation is based on the input rate (Condition S3-1A) and the emission factor developed during performance testing of a similar tunnel kiln at the facility (kiln #4) on July 17, 1999. Performance testing of kiln #4 resulted in an average emission factor of 0.0000125 pounds of H<sub>2</sub>SO<sub>4</sub> per pound of input. Compliance with the input rate and the emission factor assure this emission limitation is not exceeded.

H. Gaseous fluorides expressed as hydrogen fluoride (HF) emitted from <u>both</u> tunnel kilns combined shall not exceed **0.52** pounds per hour, on a daily average basis.

TAPCR 1200-03-07-.07(2)

**Compliance Method:** Compliance with this emission limitation is based on the input rate (**Condition S3-1A**) and the emission factor developed during performance testing of tunnel kiln #1 on February 12, 2009. Performance testing of kiln #1 resulted in an average emission factor of **0.0000474** pounds of HF per pound of input. Compliance with the input rate and the emission factor to assure this emission limitation shall not be exceeded.

S3-5. Source Specific Visible Emission Limitation(s)

Not Applicable

## F3. Federal and/or State Only Requirements

## F3-1. Source-Specific NESHAP and NSPS Requirements

In order to comply with 40 CFR 63, subpart RRRRRR, <u>both</u> tunnel kilns, the permittee must comply with **Sections A** through **F** of this condition and the general provisions identified in **Appendix 10**.

## Standards, Compliance, and Monitoring Requirements

A. Clay ceramic manufacturing facilities, as defined in 40 CFR §63.11444, that contain an atomized glaze spray booth or kiln that fires glazed ceramic ware and processes more than 45 megagrams per year (Mg/yr.) or 50 tons per year of wet clay and is an area source of hazardous air pollutants (HAPs) are subject to the National Emission Standards for Hazardous Air Pollutants (NESHAPs), 40 CFR Part 63, Subpart RRRRRR, *National Emission Standards for Hazardous Air Pollutants for Clay Ceramics Manufacturing Area Sources*. 40 CFR §63.11435(a) Under the Provisions of 40 CFR part 63, subpart RRRRRR, <u>both</u> tunnel kilns are considered to be an "*existing*" source located at an "*Area Source*." These units are considered to be "*existing*" because construction commenced on or before September 20, 2007. 40 CFR §63.11436(c)

TAPCR 0400-30-38-.01(1)(b)146

B. For each kiln that fires glazed ceramic ware, the permittee must maintain the peak temperature below 1540°C (2800°F) and comply with the management practice below.

Use natural gas, or equivalent clean-burning fuel, as the kiln fuel.

40 CFR §63.11438(a) and TAPCR 0400-30-38-.01(1)(b)146

Compliance Method: The permittee shall maintain documentation to demonstrate that only natural gas and propane are combusted in this source. Documentation may include, but is not limited to, equipment specifications, purchase records, or a tag affixed to the unit by the manufacturer. These documents shall be kept readily available/accessible and made available upon request by the Technical Secretary or a Division representative. If the permittee wishes to change the type of fuel used for this source, a construction permit must be applied for and obtained in accordance with TAPCR 1200-03-09-.01(1) prior to initiating the change.

C. For each kiln firing glazed ceramic ware, the permittee must conduct a daily check of the peak firing temperature. If the peak temperature exceeds 1540 °C (2800 °F), the permittee must take corrective action according to the permittee's standard operating procedures.

40 CFR §63.11440(a) and TAPCR 0400-30-38-.01(1)(b)146

**Compliance Method**: Compliance with this condition shall be demonstrated by maintaining the records required in Section D below of this condition.

#### **Recordkeeping Requirements**

- D. The permittee must maintain records of monitoring activities described in **Section C** of this condition. The permittee may use existing operating permit documentation to meet the monitoring requirements if it includes, but is not limited to, the monitoring records listed in (1) through (5) below related to any kiln peak temperature checks, visual inspections, VE tests, or alternative monitoring:
  - (1) The date, place, and time;
  - (2) Person conducting the activity;
  - (3) Technique or method used;
  - (4) Operating conditions during the activity; and
  - (5) Results.

40 CFR §63.11440(d), and TAPCR 0400-30-38-.01(1)(b)146

- E. The permittee must keep the records specified in (1) and (2) below:
  - (1) A copy of each notification submitted to comply with 40 CFR Part 63, Subpart RRRRR, including all documentation supporting any Initial Notification or Notification of Compliance Status submitted according to the requirements in 40 CFR §63.10(b)(2)(xiv).
  - (2) Records of all required measurements needed to document compliance with management practices as required in 40 CFR §63.10(b)(2)(vii), including records of monitoring and inspection data required by 40 CFR §63.11440.

40 CFR §63.11442(a) and TAPCR 0400-30-38-.01(1)(b)146

F. The records must be in a form suitable and readily available for expeditious review, according to §63.10(b)(1). As specified in §63.10(b)(1), the permittee must keep each record for five years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. The permittee must keep each record onsite for at least two years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to §63.10(b)(1). The permittee may keep the records offsite for the remaining three years.

40 CFR §63.11442(b), (c), and (d), and TAPCR 0400-30-38-.01(1)(b)146

## F3-2. Additional State Requirements

The exhaust gases from <u>each Kiln</u> (#1 and #2) shall be discharged unobstructed vertically upwards to the ambient air from a stack with an exit diameter of **1.6** feet not less than **39** feet above ground level. The cooling exhaust from Kiln #1 shall be discharged unobstructed vertically upwards to the ambient air from a stack with an exit diameter of **1.6** feet not less than **39** feet above ground level.

TAPCR 1200-03-09-.03(8), and the information contained in the application dated October 8, 2009, from the permittee.

**Compliance Method**: A record of the exhaust gas stack parameters and the cooling exhaust stack parameters for Kiln #1 and Kiln #2 must be maintained at the source location. These documents shall be kept readily available/accessible and made available upon request by the Technical Secretary or a Division representative. These logs shall be retained in accordance with **Condition G8**.

Source Number	Source Description
04	Spray Dryer #1 – This source consists of one (1) natural gas-fired spray dryer with cyclone and wet scrubber control.

#### S4-1. Input Limitation(s) or Statement(s) of Design

A. The total input rate for spray dryer #1 shall not exceed **17,807** pounds per hour of clay slurry solids, on a daily average basis. Should the permittee need to modify the source in a manner that increases the design

capacity, a construction permit shall be applied for and received in accordance with TAPCR 1200-03-09-.01 prior to making the change.

TAPCR 1200-03-09-.01(1)(d)

**Compliance Method**: The permittee shall maintain a log of the daily input rate and operating hours of the spray dryer #1 that readily provides the information required in the **Table A in Appendix 7**, or in an alternative format which provides the same information. The log shall be retained in accordance with **Condition G8**.

B. The total stated heat input design rate for spray dryer #1 is **7.788** MMBtu/hr. Should the permittee need to modify the source in a manner that increases the design capacity, a construction permit shall be applied for and received in accordance with TAPCR 1200-03-09-.01 prior to making the change.

**Compliance Method**: The permittee shall maintain documentation to demonstrate compliance with this condition. Documentation may include, <u>but is not limited to</u>, purchase records, operating manuals, or a tag affixed to the unit by the manufacturer. These documents shall be kept readily available/accessible and made available upon request by the Technical Secretary or a Division representative.

C. Only natural gas or propane shall be used as fuel for both kilns.

TAPCR 1200-03-09-.03(8) and the application dated November 10, 2018, from the permittee.

Compliance Method: The permittee shall maintain documentation to demonstrate that only natural gas and propane are combusted in this source. Documentation may include, but is not limited to, equipment specifications, purchase records, or a tag affixed to the unit by the manufacturer. These documents shall be kept readily available/accessible and made available upon request by the Technical Secretary or a Division representative. If the permittee wishes to change the type of fuel used for this source, a construction permit must be applied for and obtained in accordance with TAPCR 1200-03-09-.01(1) prior to initiating the change.

#### **S4-2.** Production Limitation(s)

Not Applicable

#### **S4-3.** Operating Hour Limitation(s)

Not Applicable

## S4-4. Emission Limitation(s)

**A.** Particulate matter (PM) emitted from spray dryer #1 shall not exceed **2.74** pounds per hour, on a daily average basis.

TAPCR 1200-03-07-.01(5) and the agreement letter dated April 3, 2024, from the permittee (**Appendix 6**).

**Compliance Method:** Compliance with this emission limitation is based on the input rate (**Condition S4-1(A**) and the emission rate determined during performance testing of spray dryer #1 conducted on April 1, 2009. Performance testing of spray dryer #1 resulted in an average emission rate of **2.11** pounds of PM per hour.

**B.** Sulfur dioxide (SO<sub>2</sub>) emitted from spray dryer #1 shall not exceed **0.005** pounds per hour, on a daily average basis.

TAPCR 1200-03-14-.01(3) and the agreement letter dated April 3, 2024, from the permittee. (Appendix 6)

**Compliance Method:** Compliance with this emission limitation is based on the total heat input design rate of spray dryer #1 (**Condition S4-1B**), the ability to only burn natural gas or propane (**Condition S4-1C**), and the emission factor from AP-42, Chapter 1.4, Natural Gas Combustion.

**C.** For fee purposes only, the maximum emissions of volatile organic compounds and nitrogen oxides emitted from spray dryer #1 shall not exceed the following:

Pollutant	Emission Limitation- tons during any twelve consecutive month period.
Volatile Organic Compounds (VOCs)	0.20
Nitrogen Oxides (NOx)	3.40

TAPCR 1200-03-26-.02(2)(d)3

**Compliance Method:** Compliance with this emission limitation is based on the total heat input design rate of spray dryer #1 (**Condition S4-1B**), the ability to only burn natural gas or propane (**Condition S4-1C**), and the emission factor from AP-42, Chapter 1.4, Natural Gas Combustion.

Source Number	Source Description
11	Dust Collection System for Transfer Points from Conveyor to Conveyor and Drop Points into Press Silo with Baghouse Control (F4 – 20,880 CFM)

## **S11-1.** Input Limitation(s)

The process material (spray dried powder) input rate for this source shall not exceed **60.0** tons per hour, on a daily average basis. Should the permittee need to modify the source in a manner that increases the design capacity, a construction permit shall be applied for and received in accordance with TAPCR 1200-03-09-.01 prior to making the change.

TAPCR 1200-03-09-.03(8)

Compliance Method: Within 60 days of issuance of this permit, the permittee shall begin maintenance of a log of the daily input rate and operating hours that readily provides the information required in the **Table A in Appendix** 7, or in an alternative format which provides the same information. The log shall be retained in accordance with **Condition G8.** 

#### **S11-2.** Production Limitation(s)

Not Applicable

## S11-3. Operating Hour Limitation

Not Applicable

#### **S11-4.** Emission Limitations

Particulate matter (PM) emitted from this source shall not exceed 0.02 grain per dry standard cubic foot of stack gases and **3.6** pounds per hour, on a daily average basis.

TAPCR 1200-03-07-.04(1)

## Compliance Method: Within 60 days of issuance of this permit, the permittee shall:

- (1) Install and operate a pressure gauge to measure the pressure drop (inches of water) across the fabric filter(s) / baghouse(s). Within 60 days of issuance of this permit, the permittee shall compile 30 consecutive operating days of pressure drop readings across the fabric filter(s) / baghouse(s). The designated person(s) shall note any relevant baghouse conditions/problems/concerns when recording the values. The records shall also include the initials of the person performing the pressure drop reading, any corrective action(s), along with the date, time, and any relevant comments. Days that the source is not in operation shall be noted.
- (2) Submit the pressure drop data, including a "**proposed**" **minimum pressure drop value**, to the Division no later than 15 days after completion of the initial 30 consecutive operating days of pressure drop readings.
- (3) Assure continued compliance by maintaining the "proposed" minimum pressure drop across each baghouse (unless notified by the Division that an alternate pressure drop must be used), recording one pressure drop reading per day while the source is in operation; conducting visual inspections of the exterior of the baghouse and the baghouse ductwork, including the baghouse exhaust; and maintaining the log in Appendix *X*. If the permittee finds that a sub-minimum pressure drop, abrasion hole, emissions problem, or plugging problem has developed during an inspection of the baghouse(s),the permittee shall initiate corrective action within 24 hours and complete corrective action as expediently as practical. The permittee shall record all corrective action taken including the initiation and completion of all corrective actions in the log.
- (4) For lower pressure drop reading(s) resulting from replacement of bags, the permittee shall record the deviation(s) in the log. Due allowance will be made for lower pressure drop reading(s) which follow replacement of bags provided the permittee establishes to the satisfaction of the Technical Secretary that these lower readings resulted from the replacement of bags.
- (5) In summary, the log shall include the initials of the person performing the pressure drop reading and inspection, any corrective action(s)/deviation(s), along with the date, time, and any relevant comments. Days that the source is not in operation shall be noted. These records shall be retained in accordance with **Condition G8**.

TAPCR 1200-03-09-.03(8)

Source Number	Source Description
12	Natural Gas-Fired Spray Dryer for Ceramic/Clay Press Body with Cyclone and Wet Scrubber Control NSPS 40 CFR 60, Subpart UUU

## S12-1. Input Limitation(s)

**A**. The process material input rate for this source shall not exceed **9.0** tons per hour, on a daily average. Should the permittee need to modify the source in a manner that increases the design capacity, a construction permit shall be applied for and received in accordance with TAPCR 1200-03-09-.01 prior to making the change.

TAPCR 1200-03-09-.03(8)

Compliance Method: Within 60 days of issuance of this permit, the permittee shall begin maintenance of a log of the daily input rate and operating hours that readily provides the information required in the **Table A in Appendix 7**, or in an alternative format which provides the same information. The log shall be retained in accordance with **Condition G8**.

**B.** Natural gas and propane only shall be used as fuel(s) for this source.

**Compliance Method:** The permittee shall maintain documentation to demonstrate that only natural gas and propane are combusted in this source. Documentation may include, but is not limited to, equipment specifications, purchase records, or a tag affixed to the unit by the manufacturer. These documents shall be kept readily available/accessible and made available upon request by the Technical Secretary or a Division representative. If the permittee wishes to change the type of fuel used for this source, a construction permit must be applied for and obtained in accordance with TAPCR 1200-03-09-.01(1) prior to initiating the change.

## **S12-2.** Production Limitation(s)

Not Applicable

#### **S12-3.** Operating Hour Limitation

Not Applicable

## **S12-4.** Emission Limitations

A. Sulfur dioxide (SO<sub>2</sub>) emitted from this source shall not exceed **0.01** pound per hour on a daily average basis.

TAPCR 1200-03-14-.01(3) and the information contained in the agreement letter dated April 3, 2024, from the permittee. (**Appendix 6**)

**Compliance Method**: Compliance shall be determined by use of natural gas and propane fuel only.

B. For fee purposes only, the maximum emissions of volatile organic compounds (VOC) and nitrogen oxides (NO<sub>x</sub>) shall not exceed the values specified in the table below:

Pollutant	Allowable Emissions – Tons per 12 Consecutive Months
VOC	0.20
NO <sub>x</sub>	3.42

TAPCR 1200-03-26-.02(2)(d)3

Page 16 of 49 RDA-1298

## F12. Federal and/or State Only Requirements

## F12-1. Emission Limitations

Particulate matter emitted from this source shall not exceed 0.025 grains per dry standard cubic foot of stack gases and **1.88** pound per hour, on a daily average basis.

40 CFR §60.732(a) and TAPCR 0400-30-38-.01(1)(b)146

Compliance Method: Compliance shall be determined from compliance with Condition F12-2.

- **F12-2. A.** The permittee shall calibrate (annually), maintain, and operate the monitoring devices that continuously measure and record the pressure loss of the gas stream through the scrubber and the scrubbing liquid flow rate to the scrubber. The pressure loss monitoring device must be certified by the manufacturer to be accurate within 5% of water column gauge pressure at the level of operation. The liquid flow rate monitoring device must be certified by the manufacturer to be accurate within 5% of design scrubbing liquid flow rate as specified in 40 CFR part 60. The equipment used to monitor scrubber pressure drops and flow rates under Subpart UUU must obtain a minimum of four readings per hour. The permittee shall maintain a record of these measurements. These records shall be retained in accordance with **Condition G8**.
  - **B.** The permittee shall determine and record once a day from the recordings of the monitoring devices specified in **Condition F12-2(A)**, an arithmetic average over a 2-hour period of both the changes in pressure of the gas stream across the scrubber and flow rate of the scrubber as required in 40 CFR part 60, subpart UUU. Scrubber operating data for the 2-hour period must be collected under normal source operating conditions. It is recommended that the scrubber monitoring data used be collected when the facility is operating within ten percent of its normal maximum operating rate whenever possible. These records shall be retained in accordance with **Condition G8**.
  - **C**. The permittee shall submit written reports to the Technical Secretary semiannually of exceedances of control device operating parameters. For the purpose of these reports, exceedances are defined as follows:
    - (a) Any daily 2-hour average of the wet scrubber pressure drop that is less than **10.8** inches of water.
      - This limitation is based on 90% of the average scrubber differential pressure of 12.0 inches  $H_20$  as reported by a stack test performed at this facility on February 17, 1995, and as defined in 40 CFR part 60.735.
    - (b) Any daily 2-hour average of the wet scrubber liquid flow rate that is less than **109** gallons per minute or greater than **163** gallons per minute.
      - This limitation is based on **80%** and **120%** respectively, of the average scrubber liquid flow rate of **136** gal/min as reported by a stack Test performed at this facility on February 17, 1995, and as defined in 40 CFR part 60.735.
- **F12-3.** The permittee shall submit a semiannual report if there are any exceedances as specified in Condition **F12-2C** of this permit. The report shall be submitted by September 30 (for the period from January 1 to June 30) and by March 31 of every year (for the period from July 1 to December 31). The report shall be submitted to the Technical Secretary at the address listed in **Condition G3**.

Page 17 of 49 RDA-1298

Source Number	Source Description
13	One Natural Gas-Fired Roller Kiln (#4) NESHAP 40 CFR 63, Subpart RRRRR

## **S13-1.** Input Limitation(s)

**A.** The process material input rate for this source shall not exceed **4.1** tons per hour, on a daily average basis. Should the permittee need to modify the source in a manner that increases the design capacity, a construction permit shall be applied for and received in accordance with TAPCR 1200-03-09-.01 prior to making the change.

TAPCR 1200-03-09-.03(8)

Compliance Method: Within 60 days of issuance of this permit, the permittee shall begin maintenance of a log of the daily input rate and operating hours that readily provides the information required in the **Table A** in **Appendix 7**, or in an alternative format which provides the same information. The log shall be retained in accordance with **Condition G8**.

**B**. The stated design heat input capacity for this source shall not exceed **9.7** MMBtu/hr. Should the permittee need to modify the source in a manner that increases the design heat input rate, a construction permit shall be applied for and received in accordance with TAPCR 1200-03-09-.01 prior to making the change.

TAPCR 1200-03-09-.03(8)

**Compliance Method**: The permittee shall maintain documentation to demonstrate compliance with this condition. Documentation may include, <u>but is not limited to</u>, purchase records, operating manuals, or a tag affixed to the unit by the manufacturer. These documents shall be kept readily available/accessible and made available upon request by the Technical Secretary or a Division representative.

**C.** Only natural gas or propane shall be used as fuel for kiln No.4.

TAPCR 1200-03-09-.03(8) and the application dated October 8, 2009, from the permittee.

**Compliance Method:** The permittee shall maintain documentation to demonstrate that only natural gas and propane are combusted in this source. Documentation may include, but is not limited to, equipment specifications, purchase records, or a tag affixed to the unit by the manufacturer. These documents shall be kept readily available/accessible and made available upon request by the Technical Secretary or a Division representative. If the permittee wishes to change the type of fuel used for this source, a construction permit must be applied for and obtained in accordance with TAPCR 1200-03-09-.01(1) prior to initiating the change.

## **S13-2.** Production Limitation(s)

Not Applicable

# S13-3. Operating Hour Limitation

Not Applicable

Page 18 of 49 RDA-1298

#### S13-4. Emission Limitations

**A.** Particulate matter (PM) emitted from this source shall not exceed **0.64** pounds per hour, on a daily average basis.

TAPCR 1200-03-07-.01(5) and the information contained in the agreement letter dated April 3, 2024, from the permittee (**Appendix 6**)

Compliance Method: The permittee shall perform and record weekly visual inspections of the exterior of the baghouse and the baghouse ductwork, including the baghouse exhaust. The permittee shall initiate, as well as record, corrective action within 24 hours and complete, as well as record, corrective action as expediently as practical if the permittee finds that an abrasion hole and/or emissions problem and/or plugging problem has developed during an inspection of the baghouse(s). Identification of an abrasion hole and/or emissions problem and/or plugging problem and corrective action(s) shall be noted in the weekly inspection records. Inspection records (Appendix 8) shall also include the initials of the person performing the inspection(s) and corrective action(s), along with the date, time, and any relevant comments. Days that the source is not in operation shall be noted. These records shall be retained in accordance with Condition G8.

TAPCR 1200-03-09-.03(8)

**B.** Sulfur dioxide emitted from this source shall not exceed **4.7** lb/hr. on a daily average basis.

TAPCR 1200-03-14-.01(3) and the information contained in the agreement letter dated April 3, 2024, from the permittee (**Appendix 6**)

**Compliance Method:** Compliance with this emission limitation is based on the total heat input design rate of spray dryer #1 (**Condition S13-1B**), the ability to only burn natural gas or propane (**Condition S13-1C**), and the emission factor from AP-42, Chapter 1.4, Natural Gas Combustion.

**C.** Carbon Monoxide emitted from this source shall not exceed **21.46** tons during any twelve (12) consecutive month period.

TAPCR 1200-03-07-.07(2)

**Compliance Method:** Compliance with this emission limitation is based on the total heat input design rate of spray dryer #1 (**Condition S13-1B**), the ability to only burn natural gas or propane (**Condition S13-1C**), and the emission factor from AP-42, Chapter 1.4, Natural Gas Combustion.

**D.** Volatile organic compounds emitted from this source shall not exceed **9.64** tons during any twelve (12) consecutive month period.

TAPCR 1200-03-07-.07(2)

Compliance Method: Compliance with this emission limitation is based on the total heat input design rate of spray dryer #1 (Condition S13-1B), the ability to only burn natural gas or propane (Condition S13-1C), and the emission factor from AP-42, Chapter 1.4, Natural Gas Combustion.

**E.** Nitrogen oxides emitted from this source shall not exceed **8.32** tons during any twelve (12) consecutive month period.

TAPCR 1200-03-07-.07(2)

**Compliance Method:** Compliance with this emission limitation is based on the total heat input design rate of spray dryer #1 (**Condition S13-1B**), the ability to only burn natural gas or propane (**Condition S13-1C**), and the emission factor from AP-42, Chapter 1.4, Natural Gas Combustion.

**F.** Hydrogen chloride (HCl) emitted from this source shall not exceed **0.25** lb/hr. on a daily average basis.

TAPCR 1200-03-07-.07(2)

Compliance Method: Compliance with Condition F13-1 shall assure compliance with this emission rate.

**G.** Sulfuric acid mist (H<sub>2</sub>SO<sub>4</sub>) emitted from this source shall not exceed **0.13** lb/hr. on a daily average basis.

TAPCR 1200-03-07-.07(2)

**Compliance Method:** Compliance with **Condition F13-1** shall assure compliance with this emission rate.

**H.** Gaseous fluoride, expressed as hydrogen fluoride (HF), emitted from this source shall not exceed **0.58** lb/hr. on a daily average basis.

TAPCR 1200-03-07-.07(2)

Compliance Method: Compliance with Condition F13-1 shall assure compliance with this emission rate.

## S13-5. Source-Specific Visible Emissions Limitation(s)

Visible emissions from this source shall not exhibit greater than (10%) opacity. A stack is defined as any chimney, flue, conduit, exhaust, vent, or opening of any kind whatsoever, capable of, or used for, the emission of air contaminants.

TAPCR 1200-03-05-.01(3) and the information contained in the agreement letter dated April 3, 2024, from the permittee. (**Appendix 6**)

**Compliance Method:** When required to demonstrate compliance, visible emissions shall be determined by EPA Method 9, as published in the current 40 CFR 60, Appendix A (six-minute average).

**S13-6.** The exhaust gases from Kiln #4 shall be discharged unobstructed vertically upwards to the ambient air from a stack with an exit diameter of 3.28 feet not less than 39 feet above ground level. The cooling exhaust from Kiln #4 shall be discharged unobstructed vertically upwards to the ambient air from a stack with an exit diameter of 4.92 feet not less than 39 feet above ground level.

TAPCR 1200-03-09-.03(8)

## F13. Federal Requirements

**F13-1**. This source is subject to the National Emission Standards for Hazardous Air Pollutants for Clay Ceramics Manufacturing Area Sources (40 CFR Part 63, Subpart RRRRRR). The permittee shall comply with all applicable provisions of 40 CFR Part 63, Subpart RRRRRR.

Pursuant to 40 CFR §63.11438, the peak temperature for the kiln that fires glazed ceramic ware must be maintained below 1540 °C (**2800** °F), and only natural gas, or equivalent clean-burning fuel, shall be used as the kiln fuel. Propane gas is accepted for use as an "equivalent clean-burning fuel".

Pursuant to 40 CFR §63.11440, for the kiln firing glazed ceramic ware, the permittee must conduct a daily check of the peak firing temperature. If the peak temperature exceeds 1540 °C (2800 °F), the permittee must take corrective action according to the permittee's standard operating procedures.

TAPCR 0400-30-38-.01(1)(b)146

## **F13-2.** Pursuant to 40 CFR §63.11442, the permittee shall keep records as specified below:

- (1) The permittee shall keep a copy of each notification that was submitted to comply with 40 CFR 63, subpart RRRRR, including all documentation supporting any Initial Notification or Notification of Compliance Status that was submitted, according to the requirements in 40 CFR §63.10(b)(2)(xiv).
- (2) The permittee shall keep records of the daily temperature readings required by **Condition F13-1** of this permit.
- (3) Records must be in a form suitable and readily available for expeditious review.
- (4) The permittee must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.
- (5) The permittee must keep each record onsite for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record. The permittee may keep the records offsite for the remaining three years.

TAPCR 0400-30-38-.01(1)(b)146

Source Number	Source Description
16	Vertical Talc Silo with Fabric Filter Bin Vent

#### S16-1. Input Limitation(s) or Statement(s) of Design

Not applicable

#### S16-2. Production Limitation(s)

Not applicable

# **S16-3.** Operating Hour Limitation(s)

Not applicable

**S16-4**. Particulate matter (PM) emitted from this source shall not exceed 0.25 grain per dry standard cubic foot of stack gases and **1.5** pounds per hour, on a daily average basis.

TAPCR 1200-03-07-.04(2)

Compliance Method: The permittee shall perform and record weekly visual inspections of the exterior of the baghouse and the baghouse ductwork, including the baghouse exhaust. The permittee shall initiate, as well as record, corrective action within 24 hours and complete, as well as record, corrective action as expediently as practical if the permittee finds that an abrasion hole and/or emissions problem and/or plugging problem has developed during an inspection of the baghouse(s). Identification of an abrasion hole and/or emissions problem and/or plugging problem and corrective action(s) shall be noted in the weekly inspection records. Inspection records (Appendix 8) shall also include the initials of the person performing the inspection(s) and corrective action(s), along with the date, time, and any relevant comments. Days that the source is not in operation shall be noted. These records shall be retained in accordance with Condition G8.

TAPCR 1200-03-09-.03(8)

Source Number	Source Description
23	One Mori Natural Gas-Fired Roller Kiln NESHAP 40 CFR, 63, Subpart RRRRRR

# S23-1. Input Limitation(s) or Statement(s) of Design

**A**. The process material input rate of ceramic tile for this source shall not exceed **850** pounds per hour, on a daily average basis. Should the permittee need to modify the source in a manner that increases the design capacity, a construction permit shall be applied for and received in accordance with TAPCR 1200-03-09-.01 prior to making the change.

TAPCR 1200-03-09-.03(8)

**Compliance Method:** Within 60 days of issuance of this permit, the permittee shall begin maintenance of a log of the daily input rate and operating hours that readily provides the information required in the **Table A in Appendix** 7, or in an alternative format which provides the same information. The log shall be retained in accordance with **Condition G8.** 

**B.** The stated design heat input capacity for this source is **4.0** MMBtu/hr. Should the permittee need to modify the source in a manner that increases the design heat input rate, a construction permit shall be applied for and received in accordance with TAPCR 1200-03-09-.01 prior to making the change.

TAPCR 1200-03-09-.03(8)

**Compliance Method**: The permittee shall maintain documentation to demonstrate compliance with this condition. Documentation may include, <u>but is not limited to</u>, purchase records, operating manuals, or a tag affixed to the unit by the manufacturer. These documents shall be kept readily available/accessible and made available upon request by the Technical Secretary or a Division representative.

**C.** Only natural gas or propane shall be used as fuel for this source.

TAPCR 1200-03-09-.03(8) and the application dated October 8, 2009, from the permittee.

**Compliance Method:** The permittee shall maintain documentation to demonstrate that only natural gas and propane are combusted in this source. Documentation may include, but is not limited to, equipment specifications, purchase records, or a tag affixed to the unit by the manufacturer. These documents shall be kept readily available/accessible

and made available upon request by the Technical Secretary or a Division representative. If the permittee wishes to change the type of fuel used for this source, a construction permit must be applied for and obtained in accordance with TAPCR 1200-03-09-.01(1) prior to initiating the change.

#### **S23-2.** Production Limitation(s)

Not Applicable

## **S23-3.** Operating Hour Limitation

Not Applicable

#### **S23-4.** Emission Limitations

A. Particulate matter (PM) emitted from this source shall not exceed **0.1** pounds per hour on a daily average basis.

TAPCR 1200-03-07-.01(5) and the information contained in the agreement letter dated April 3, 2024, from the permittee. (**Appendix 6**)

Compliance Method: Compliance with Condition S23-1 shall assure compliance with this emission rate.

**B**. Sulfur dioxide (SO<sub>2</sub>) emitted from this source shall not exceed **0.33** lb/hr on a daily average basis.

TAPCR 1200-03-14-.01(3) and the information contained in the agreement letter dated April 3, 2024, from the permittee. (**Appendix 6**)

**Compliance Method:** Compliance with this emission limitation is based on the total heat input design rate of this source (**Condition S23-1B**), the ability to only burn natural gas or propane (**Condition S23-1C**), and the emission factor from AP-42, Chapter 1.4, Natural Gas Combustion.

C. Carbon Monoxide (CO) emitted from this source shall not exceed **2.85** tons during any twelve (12) consecutive month period.

TAPCR 1200-03-07-.07(2)

Compliance Method: Compliance with this emission limitation is based on the total heat input design rate of this source (Condition S23-1B), the ability to only burn natural gas or propane (Condition S23-1C), and the emission factor from AP-42, Chapter 1.4, Natural Gas Combustion.

**D**. Volatile Organic Compounds emitted from this source shall not exceed **1.01** tons during any twelve (12) consecutive month period.

TAPCR 1200-03-07-.07(2).

**Compliance Method:** Compliance with this emission limitation is based on the total heat input design rate of this source (**Condition S23-1B**), the ability to only burn natural gas or propane (**Condition S23-1C**), and the emission factor from AP-42, Chapter 1.4, Natural Gas Combustion.

**E.** Nitrogen Oxides (NOx) emitted from this source shall not exceed **1.31** tons during any twelve (12) consecutive month period.

TAPCR 1200-03-07-.07(2)

Compliance Method: Compliance with this emission limitation is based on the total heat input design rate of this source (Condition S23-1B), the ability to only burn natural gas or propane (Condition S23-1C), and the emission factor from AP-42, Chapter 1.4, Natural Gas Combustion.

F. Hydrogen chloride (HCl) emitted from this source shall not exceed **0.1** lb/hr on a daily average basis.

TAPCR 1200-03-07-.07(2)

Compliance Method: Compliance with Condition F23-1 shall assure compliance with this emission rate.

G. Sulfuric acid mist (H<sub>2</sub>SO<sub>4</sub>) emitted from this source shall not exceed **0.1** lb/hr on a daily average basis.

TAPCR 1200-03-07-.07(2)

**Compliance Method:** Compliance with **Condition F23-1** shall assure compliance with this emission rate.

**H.** Gaseous fluorides expressed as hydrogen fluoride (HF) emitted from this source shall not exceed **0.05** lb/hr on a daily average basis.

TAPCR 1200-03-07-.07(2)

Compliance Method: Compliance with Condition F23-1 shall assure compliance with this emission rate.

## **S23-5.** Source-Specific Visible Emissions Limitation(s)

Visible emissions from this source shall not exhibit greater than (10%) opacity. Visible emissions from this source shall be determined by EPA Method 9, as published in the current 40 CFR 60, Appendix A (six-minute average). This limitation is established pursuant to TAPCR 1200-03-05-.01(3) and the information contained in the agreement letter dated March11, 2024, from the permittee. (**Appendix 6**). A stack is defined as any chimney, flue, conduit, exhaust, vent, or opening of any kind whatsoever, capable of, or used for, the emission of air contaminants.

**Compliance Method:** When required to demonstrate compliance, visible emissions shall be determined by EPA Method 9, as published in the current 40 CFR 60, Appendix A (six-minute average).

**S23.6**. The exhaust gases from the kiln shall be discharged unobstructed vertically upwards to the ambient air from a stack with an exit diameter of 1.0 foot not less than 30 feet above ground level. These documents shall be kept readily available/accessible and made available upon request by the Technical Secretary or a Division representative. These logs shall be retained in accordance with **Condition G8**.

TAPCR 1200-03-09-.03(8)

# **F23.** Federal Requirements

**F23-1**. This source is subject to the National Emission Standards for Hazardous Air Pollutants for Clay Ceramics Manufacturing Area Sources (40 CFR Part 63, Subpart RRRRR). The permittee shall comply with all applicable requirements of 40 CFR Part 63, Subpart RRRRRR.

Pursuant to 40 CFR §63.11438, the peak temperature for the kiln that fires glazed ceramic ware must be maintained below 1540 °C (**2800** °F), and only natural gas, or equivalent clean-burning fuel, shall be used as the kiln fuel. Propane gas is accepted for use as an "equivalent clean-burning fuel".

Pursuant to 40 CFR §63.11440, for the kiln firing glazed ceramic ware, the permittee must conduct a daily check of the peak firing temperature. If the peak temperature exceeds 1540 °C (2800 °F), the permittee must take corrective action according to the permittee's standard operating procedures.

TAPCR 0400-30-38-.01(1)(b)146

## **F23-2.** Pursuant to 40 CFR §63.11442, the permittee shall keep records as specified below:

- (1) The permittee shall keep a copy of each notification that was submitted to comply with 40 CFR 63, subpart RRRRR, including all documentation supporting any Initial Notification or Notification of Compliance Status that was submitted, according to the requirements in 40 CFR §63.10(b)(2)(xiv).
- (2) The permittee shall keep records of the daily temperature readings required by **Condition F23-1** of this permit.
- (3) Records must be in a form suitable and readily available for expeditious review.
- (4) The permittee must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.
- (5) The permittee must keep each record onsite for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record. The permittee may keep the records offsite for the remaining three years.

TAPCR 0400-30-38-.01(1)(b)146

Source Number	Source Description
24	One Siti Natural Gas-Fired Roller Kiln- NESHAP 40 CFR, 63, Subpart RRRRRR

#### **S24-1.** Input Limitation(s) or Statement(s) of Design

**A**. The process material input rate of ceramic tile for this source shall not exceed **2,500** pounds per hour, on a daily average basis. Should the permittee need to modify the source in a manner that increases the design capacity, a construction permit shall be applied for and received in accordance with TAPCR 1200-03-09-.01 prior to making the change.

TAPCR 1200-03-09-.03(8)

Compliance Method: Within 60 days of issuance of this permit, the permittee shall begin maintenance of a log of the daily input rate and operating hours that readily provides the information required in **Table A in Appendix** 7, or in an alternative format which provides the same information. The log shall be retained in accordance with **Condition G8**.

**B.** The stated design heat input capacity for this source is **2.72** MMBtu/hr. Should the permittee need to modify the source in a manner that increases the design heat input rate, a construction permit shall be applied for and received in accordance with TAPCR 1200-03-09-.01 prior to making the change.

TAPCR 1200-03-09-.03(8)

**Compliance Method**: The permittee shall maintain documentation to demonstrate compliance with this condition. Documentation may include, <u>but is not limited to</u>, purchase records, operating manuals, or a tag affixed to the unit by the manufacturer. These documents shall be kept readily available/accessible and made available upon request by the Technical Secretary or a Division representative.

C. Only natural gas and propane shall be used as fuels for this source.

TAPCR 1200-03-09-.03(8)

**Compliance Method:** The permittee shall maintain documentation to demonstrate that only natural gas and propane are combusted in this source. Documentation may include, but is not limited to, equipment specifications, purchase records, or a tag affixed to the unit by the manufacturer. These documents shall be kept readily available/accessible and made available upon request by the Technical Secretary or a Division representative. If the permittee wishes to change the type of fuel used for this source, a construction permit must be applied for and obtained in accordance with TAPCR 1200-03-09-.01(1) prior to initiating the change.

## **S24-2.** Production Limitation(s)

Not Applicable

# **S24-3.** Operating Hour Limitation

Not Applicable

#### **S24-4.** Emission Limitations

A. Particulate matter (PM) emitted from this source shall not exceed 0.2 pounds per hour on a daily average basis.

TAPCR 1200-03-07-.01(5) and the information contained in the agreement letter dated April 3, 2024, from the permittee (**Appendix 6**).

**Compliance Method:** Compliance with **Condition S24-1** shall assure compliance with this emission rate.

**B.** Sulfur dioxide (SO<sub>2</sub>) emitted from this source shall not exceed **1.0** lb/hr on a daily average basis.

TAPCR 1200-03-14-.01(3) and the information contained in the agreement letter dated April 3, 2024, from the permittee (**Appendix 6**)

**Compliance Method:** Compliance with this emission limitation is based on the total heat input design rate of this source (**Condition S24-1B**), the ability to only burn natural gas or propane (**Condition S24-1C**), and the emission factor from AP-42, Chapter 1.4, Natural Gas Combustion.

C. Carbon Monoxide (CO) emitted from this source shall not exceed **8.76** tons during any twelve (12) consecutive month period.

TAPCR 1200-03-07-.07(2)

**Compliance Method:** Compliance with this emission limitation is based on the total heat input design rate of this source (**Condition S24-1B**), the ability to only burn natural gas or propane (**Condition S24-1C**), and the emission factor from AP-42, Chapter 1.4, Natural Gas Combustion.

**D**. Volatile Organic Compounds emitted from this source shall not exceed **2.98** tons during any twelve (12) consecutive month period.

TAPCR 1200-03-07-.07(2)

Compliance Method: Compliance with this emission limitation is based on the total heat input design rate of this source (Condition S24-1B), the ability to only burn natural gas or propane (Condition S24-1C), and the emission factor from AP-42, Chapter 1.4, Natural Gas Combustion.

**E**. Nitrogen Oxides emitted from this source shall not exceed **3.98** tons during any twelve (12) consecutive month period.

TAPCR 1200-03-07-.07(2)

Compliance Method: Compliance with this emission limitation is based on the total heat input design rate of this source (Condition S24-1B), the ability to only burn natural gas or propane (Condition S24-1C), and the emission factor from AP-42, Chapter 1.4, Natural Gas Combustion.

F. Hydrogen chloride (HCl) emitted from this source shall not exceed 0.1 lb/hr on a daily average basis.

TAPCR 1200-03-07-.07(2)

Compliance Method: Compliance with Condition F24-1 shall assure compliance with this emission rate.

G. Sulfuric acid mist (H<sub>2</sub>SO<sub>4</sub>) emitted from this source shall not exceed 0.1 lb/hr on a daily average basis.

TAPCR 1200-03-07-.07(2)

**Compliance Method:** Compliance with **Condition F24-1** shall assure compliance with this emission rate.

**H.** Gaseous fluorides expressed as hydrogen fluoride (HF) emitted from this source shall not exceed **0.15** lb/hr on a daily average basis.

TAPCR 1200-03-07-.07(2)

**Compliance Method:** Compliance with **Condition F24-1** shall assure compliance with this emission rate.

## **S24-5.** Source-Specific Visible Emissions Limitation(s)

Visible emissions from this source shall not exhibit greater than (10%) opacity. Visible emissions from this source shall be determined by EPA Method 9, as published in the current 40 CFR 60, Appendix A (six-minute average). This limitation is established pursuant to TAPCR 1200-03-05-.01(3) and the information contained in the agreement letter dated April 3, 2024, from the permittee. (**Appendix 6**). A stack is defined as any chimney, flue, conduit, exhaust, vent, or opening of any kind whatsoever, capable of, or used for, the emission of air contaminants.

**Compliance Method:** When required to demonstrate compliance, visible emissions shall be determined by EPA Method 9, as published in the current 40 CFR 60, Appendix A (six-minute average).

Page 27 of 49 RDA-1298

**S24-6.** The exhaust gases from the kiln shall be discharged unobstructed vertically upwards to the ambient air from a stack with an exit diameter of **2.0** feet not less than **39** feet above ground level. The cooling exhaust from the kiln shall be discharged unobstructed vertically upwards to the ambient air from a stack with an exit diameter of **2.95** feet not less than **39** feet above ground level.

TAPCR 1200-03-09-.03(8)

# F24 - Federal Requirements

**F24-1**. This source is subject to the National Emission Standards for Hazardous Air Pollutants for Clay Ceramics Manufacturing Area Sources (40 CFR Part 63, Subpart RRRRRR). The permittee shall comply with all applicable requirements of 40 CFR Part 63, Subpart RRRRRR.

Pursuant to 40 CFR §63.11438, the peak temperature for the kiln that fires glazed ceramic ware must be maintained below 1540 °C (**2800** °F), and only natural gas, or equivalent clean-burning fuel, shall be used as the kiln fuel.

Pursuant to 40 CFR §63.11440, for the kiln firing glazed ceramic ware, the permittee must conduct a daily check of the peak firing temperature. If the peak temperature exceeds 1540 °C (**2800** °F), the permittee must take corrective action according to the permittee's standard operating procedures.

TAPCR 0400-30-38-.01(1)(b)146

- **F24-2.** Pursuant to 40 CFR §63.11442, the permittee shall keep records as specified below:
  - (1) The permittee shall keep a copy of each notification that was submitted to comply with 40 CFR 63, subpart RRRRR, including all documentation supporting any Initial Notification or Notification of Compliance Status that was submitted, according to the requirements in 40 CFR §63.10(b)(2)(xiv).
  - (2) The permittee shall keep records of the daily temperature readings required by **Condition F24-1** of this permit.
  - (3) Records must be in a form suitable and readily available for expeditious review.
  - (4) The permittee must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.
  - (5) The permittee must keep each record onsite for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record. The permittee may keep the records offsite for the remaining three years.

TAPCR 0400-30-38-.01(1)(b)146

Source Number	Source Description
26	Three (3) Tile Presses and Two (2) Tile Glazing Lines with Baghouse Control (F-18 – 19,800 CFM)) NESHAP 40 CFR, 63, Subpart RRRRR

# S26-1. Input Limitation(s) or Statement(s) of Design

The process material input rate of spray dried powder for each tile press line shall not exceed **3,300** pounds per hour, on a daily average basis. The process material input rate of ceramic tiles and glaze for each tile glazing line shall not exceed **3,500** pounds per hour, on a daily average basis. Should the permittee need to modify the source in a manner that increases the design capacity, a construction permit shall be applied for and received in accordance with TAPCR 1200-03-09-.01 prior to making the change.

TAPCR 1200-03-09-.03(8)

Compliance Method: Within 60 days of issuance of this permit, the permittee shall begin maintenance of a log of the daily input rates and operating hours that readily provides the information required in the **Table A in Appendix 7**, or in an alternative format which provides the same information. The log shall be retained in accordance with **Condition G8**.

## **S26-2.** Production Limitation(s)

Not Applicable

## **S26-3.** Operating Hour Limitation

Not Applicable

#### **S26-4.** Emission Limitations

Particulate matter (PM) emitted from this source shall not exceed **0.5** pounds per hour on a daily average basis.

TAPCR 1200-03-07-.01(5) and the information contained in the agreement letter dated April 3, 2024, from the permittee. (**Appendix 6**)

# Compliance Method: Within 60 days of issuance of this permit, the permittee shall:

- (1) Install and operate a pressure gauge to measure the pressure drop (inches of water) across the fabric filter(s) / baghouse(s). Within 60 days of issuance of this permit, the permittee shall compile 30 consecutive operating days of pressure drop readings across the fabric filter(s) / baghouse(s). The designated person(s) shall note any relevant baghouse conditions/problems/concerns when recording the values. The records shall also include the initials of the person performing the pressure drop reading, any corrective action(s), along with the date, time, and any relevant comments. Days that the source is not in operation shall be noted.
- (2) Submit the pressure drop data, including a "**proposed**" minimum pressure drop value, to the Division no later than 15 days after completion of the initial 30 consecutive operating days of pressure drop readings.
- (3) Assure continued compliance by maintaining the "proposed" minimum pressure drop across each baghouse (unless notified by the Division that an alternate pressure drop must be used), recording one pressure drop reading per day while the source is in operation; conducting visual inspections of the exterior of the baghouse and the baghouse ductwork, including the baghouse exhaust; and maintaining the log in **Appendix 8**. If the permittee finds that a sub-minimum pressure drops, abrasion hole, emissions problem, or plugging problem has developed during an inspection of the baghouse(s), the permittee shall initiate corrective action within 24 hours and complete corrective action as expediently as practical. The permittee shall record all corrective action taken including the initiation and completion of all corrective actions in the log.
- (4) For lower pressure drop reading(s) resulting from replacement of bags, the permittee shall record the deviation(s) in the log. Due allowance will be made for lower pressure drop reading(s) which follow replacement of bags

Page 29 of 49 RDA-1298

provided the permittee establishes to the satisfaction of the Technical Secretary that these lower readings resulted from the replacement of bags.

(5) In summary, the log shall include the initials of the person performing the pressure drop reading and inspection, any corrective action(s)/deviation(s), along with the date, time, and any relevant comments. Days that the source is not in operation shall be noted. These records shall be retained in accordance with **Condition G8**.

TAPCR 1200-03-09-.03(8)

#### **S26-5.** Source-Specific Visible Emissions Limitation(s)

Visible emissions from this source shall not exhibit greater than (10%) opacity. Visible emissions from this source shall be determined by EPA Method 9, as published in the current 40 CFR 60, Appendix A (six-minute average). A stack is defined as any chimney, flue, conduit, exhaust, vent, or opening of any kind whatsoever, capable of, or used for, the emission of air contaminants.

TAPCR 1200-03-05-.01(3) and the information contained in the agreement letter dated April 3, 2024, from the permittee. (**Appendix 6**)

**Compliance Method:** When required to demonstrate compliance, visible emissions shall be determined by EPA Method 9, as published in the current 40 CFR 60, Appendix A (six-minute average).

## **F26.** Federal Requirements

**F26-1**. This source is subject to the National Emission Standards for Hazardous Air Pollutants for Clay Ceramics Manufacturing Area Sources (40 CFR Part 63, Subpart RRRRR). The permittee shall comply with all applicable provisions of 40 CFR Part 63, Subpart RRRRR.

Pursuant to 40 CFR §63.11438, for the atomized glaze spray booths located at a clay ceramics manufacturing facility (using more than 250 tpy of wet glaze), the permittee must control the emissions from the atomized glaze spray booth with an air pollution control device (APCD), as defined in 40 CFR §63.11444. The permittee must operate and maintain the APCD in accordance with the equipment manufacturer's specifications; and

- a) conduct weekly visual inspections of the system ductwork for leaks.
- b) conduct inspections of the interior of the baghouse for structural integrity and to determine the condition of the fabric filter every 12 months.

TAPCR 0400-30-38-.01(1)(b)146

Source Number	Source Description
28	Four (4) Tile Glazing Line with Four Baghouses (F-9, 5600 CFM), (F-14, 6,200 CFM), (F-15, 6,000 DSCFM), and (F-16, 16,000 CFM)) NESHAP 40 CFR, 63, Subpart RRRRR

## S28-1. Input Limitation(s) or Statement(s) of Design

The process material input rate of dry pressed tiles and glazes for the circular tile glazing line shall not exceed **2,884** pounds per hour, on a daily average basis. The process material input rate of dry pressed tiles and glazes for tile

glazing line #5 shall not exceed **19,500** pounds per hour, on a daily average basis. The process material input rate of dry pressed tiles and glazes for the interstate tile glazing line shall not exceed **3,908** pounds per hour, on a daily average basis. The process material input rate of dry pressed tiles and glazes for the trim tile glazing line shall not exceed **3,176** pounds per hour, on a daily average basis. Should the permittee need to modify the source in a manner that increases the design capacity, a construction permit shall be applied for and received in accordance with TAPCR 1200-03-09-.01 prior to making the change.

TAPCR 1200-03-09-.03(8)

Compliance Method: Within 60 days of issuance of this permit, the permittee shall begin maintenance of a log of the daily input rates and operating hours that readily provides the information required in the **Table A in Appendix 7**, or in an alternative format which provides the same information. The log shall be retained in accordance with **Condition G8**.

## **S28-2.** Production Limitation(s)

Not Applicable

#### **S28-3.** Operating Hour Limitation

Not Applicable

#### **S28-4.** Emission Limitations

Particulate matter (PM) emitted from this source shall not exceed **0.46** pounds per hour on a daily average basis.

TAPCR 1200-03-07-.01(5) and the information contained in the agreement letter dated April 3, 2024, from the permittee. (**Appendix 6**)

# Compliance Method: Within 60 days of issuance of this permit, the permittee shall:

- (1) Install and operate a pressure gauge to measure the pressure drop (inches of water) across the fabric filter(s) / baghouse(s). Within 60 days of issuance of this permit, the permittee shall compile 30 consecutive operating days of pressure drop readings across the fabric filter(s) / baghouse(s). The designated person(s) shall note any relevant baghouse conditions/problems/concerns when recording the values. The records shall also include the initials of the person performing the pressure drop reading, any corrective action(s), along with the date, time, and any relevant comments. Days that the source is not in operation shall be noted.
- (2) Submit the pressure drop data, including a "**proposed**" **minimum pressure drop value**, to the Division no later than 15 days after completion of the initial 30 consecutive operating days of pressure drop readings.
- (3) Assure continued compliance by maintaining the "proposed" minimum pressure drop across each baghouse (unless notified by the Division that an alternate pressure drop must be used), recording one pressure drop reading per day while the source is in operation; conducting visual inspections of the exterior of the baghouse and the baghouse ductwork, including the baghouse exhaust; and maintaining the log in **Appendix 8.** If the permittee finds that a sub-minimum pressure drop, abrasion hole, emissions problem, or plugging problem has developed during an inspection of the baghouse(s), the permittee shall initiate corrective action within 24 hours and complete corrective action as expediently as practical. The permittee shall record all corrective action taken including the initiation and completion of all corrective actions in the log.

Page 31 of 49 RDA-1298

- (4) For lower pressure drop reading(s) resulting from replacement of bags, the permittee shall record the deviation(s) in the log. Due allowance will be made for lower pressure drop reading(s) which follow replacement of bags provided the permittee establishes to the satisfaction of the Technical Secretary that these lower readings resulted from the replacement of bags.
- (5) In summary, the log shall include the initials of the person performing the pressure drop reading and inspection, any corrective action(s)/deviation(s), along with the date, time, and any relevant comments. Days that the source is not in operation shall be noted. These records shall be retained in accordance with **Condition G8**.

TAPCR 1200-03-09-.03(8)

## S28-5. Source-Specific Visible Emissions Limitation(s)

Visible emissions from this source shall not exhibit greater than (10%) opacity. Visible emissions from this source shall be determined by EPA Method 9, as published in the current 40 CFR 60, Appendix A (six-minute average). A stack is defined as any chimney, flue, conduit, exhaust, vent, or opening of any kind whatsoever, capable of, or used for, the emission of air contaminants.

TAPCR 1200-03-05-.01(3) and the information contained in the agreement letter dated April 3, 2024, from the permittee. (**Appendix 6**)

**Compliance Method:** When required to demonstrate compliance, visible emissions shall be determined by EPA Method 9, as published in the current 40 CFR 60, Appendix A (six-minute average).

## F28. Federal Requirements

**F28-1.** This source is subject to the National Emission Standards for Hazardous Air Pollutants for Clay Ceramics Manufacturing Area Sources (40 CFR Part 63, Subpart RRRRR). The permittee shall comply with all applicable requirements of 40 CFR Part 63, Subpart RRRRR.

Pursuant to 40 CFR §63.11438, for the atomized glaze spray booths located at a clay ceramics manufacturing facility (using more than 250 tpy of wet glaze), the permittee must control the emissions from the atomized glaze spray booth with an air pollution control device (APCD), as defined in 40 CFR §63.11444. The permittee must operate and maintain the APCD in accordance with the equipment manufacturer's specifications; and

- a) conduct weekly visual inspections of the system ductwork for leaks.
- b) conduct inspections of the interior of the baghouse for structural integrity and to determine the condition of the fabric filter every 12 months.

TAPCR 0400-30-38-.01(1)(b)146

Source Number	Source Description
29	Kiln #4 Loading Operation and Three Glaze Application Operations -Glazing Line at Entrance to Kiln #4, Press #6 Tile Glazing Booth, and Trim Press #1 Glazing Booth - One Baghouse (F-13- 1,141 CFM) NESHAP 40 CFR, 63, Subpart RRRRR

#### S29-1. Input Limitation(s) or Statement(s) of Design

The process material (ceramic tiles) input rate for the tile car unloading operation that feeds Kiln #4 shall not exceed **8,200** pounds per hour, on a daily average basis. The process material input rate of dry pressed tiles and glazes for the glazing line at the entrance to Kiln #4 shall not exceed **455** pounds per hour, on a daily average basis. The process material input rate of dry pressed tiles and glazes for Press #6 tile glazing booth shall not exceed **8,639** pounds per hour, on a daily average basis. The process material input rate of dry pressed tiles and glazes for Trim Press #1 glazing booth shall not exceed **324** pounds per hour, on a daily average basis. Should the permittee need to modify the source in a manner that increases the design capacity, a construction permit shall be applied for and received in accordance with TAPCR 1200-03-09-.01 prior to making the change.

TAPCR 1200-03-09-.03(8)

Compliance Method: Within 60 days of issuance of this permit, the permittee shall begin maintenance of a log of the daily input rates and operating hours that readily provides the information required in the **Table A in Appendix 7**, or in an alternative format which provides the same information. The log shall be retained in accordance with **Condition G8**.

## **S29-2.** Production Limitation(s)

Not Applicable

# **S29-3. Operating Hour Limitation**

Not Applicable

#### **S29-4.** Emission Limitations

Particulate matter (PM) emitted from this source shall not exceed 0.063 pounds per hour on a daily average basis.

TAPCR 1200-03-07-.01(5) and the information contained in the agreement letter dated April 3, 2024, from the permittee (**Appendix 6**).

Compliance Method: The permittee shall perform and record weekly visual inspections of the exterior of the baghouse and the baghouse ductwork, including the baghouse exhaust. The permittee shall initiate, as well as record, corrective action within 24 hours and complete, as well as record, corrective action as expediently as practical if the permittee finds that an abrasion hole and/or emissions problem and/or plugging problem has developed during an inspection of the baghouse(s). Identification of an abrasion hole and/or emissions problem and/or plugging problem and corrective action(s) shall be noted in the weekly inspection records (Appendix 8). Inspection records shall also include the initials of the person performing the inspection(s) and corrective action(s), along with the date, time, and any relevant comments. Days that the source is not in operation shall be noted. These records shall be retained in accordance with Condition G8.

TAPCR 1200-03-09-.03(8)

## **S29-5.** Source-Specific Visible Emissions Limitation(s)

Visible emissions from this source shall not exhibit greater than (10%) opacity. A stack is defined as any chimney, flue, conduit, exhaust, vent, or opening of any kind whatsoever, capable of, or used for, the emission of air contaminants.

TAPCR 1200-03-05-.01(3) and the information contained in the agreement letter dated April 3, 2024, from the permittee. (**Appendix 6**)

**Compliance Method:** When required to demonstrate compliance, visible emissions shall be determined by EPA Method 9, as published in the current 40 CFR 60, Appendix A (six-minute average).

# **F29.** Federal Requirements

**F29-1.** This source is subject to the National Emission Standards for Hazardous Air Pollutants for Clay Ceramics Manufacturing Area Sources (40 CFR Part 63, Subpart RRRRRR). The permittee shall comply with all applicable requirements of 40 CFR Part 63, Subpart RRRRRR.

Pursuant to 40 CFR §63.11438, for the atomized glaze spray booths located at a clay ceramics manufacturing facility (using more than **250 tpy** of wet glaze), the permittee must control the emissions from the atomized glaze spray booth with an air pollution control device (APCD), as defined in 40 CFR §63.11444. The permittee must operate and maintain the APCD in accordance with the equipment manufacturer's specifications; and

- a) conduct weekly visual inspections of the system ductwork for leaks.
- b) conduct inspections of the interior of the baghouse for structural integrity and to determine the condition of the fabric filter every 12 months.

TAPCR 0400-30-38-.01(1)(b)146

- **F29-2.** Pursuant to 40 CFR §63.11442, the permittee shall keep the following records:
  - a) A copy of each notification that was submitted to comply with 40 CFR Part 63, Subpart RRRRRR, including all documentation supporting any Initial Notification or Notification of Compliance Status that was submitted.
  - b) Records of all required measurements, including records of monitoring and inspection data required by **Condition F29-1**.
  - c) Records must be in a form suitable and readily available for expeditious review.
  - d) The permittee shall keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.
  - e) The permittee shall keep each record onsite for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record. The permittee may keep the records offsite for the remaining three years.

TAPCR 0400-30-38-.01(1)(b)146

Source Number	Source Description
30	Stain Milling Operation with One Baghouse (F-3 – 2,013 CFM)

## S30-1. Input Limitation(s) or Statement(s) of Design

The process material input rate of dry powdered stains for the stain milling operation shall not exceed **15,400** pounds per hour, on a daily average basis. Should the permittee need to modify the source in a manner that increases the design capacity, a construction permit shall be applied for and received in accordance with TAPCR 1200-03-09-.01 prior to making the change.

TAPCR 1200-03-09-.03(8)

Compliance Method: Within 60 days of issuance of this permit, the permittee shall begin maintenance of a log of the daily input rates and operating hours that readily provides the information required in the **Table A in Appendix 7**, or in an alternative format which provides the same information. The log shall be retained in accordance with **Condition G8**.

# S30-2. Production Limitation(s)

Not Applicable

## S30-3. Operating Hour Limitation

Not Applicable

#### S30-4. Emission Limitations

Particulate matter (PM) emitted from this source shall not exceed 0.063 pounds per hour on a daily average basis.

TAPCR 1200-03-07-.01(5) and the information contained in the agreement letter dated April 3, 2024, from the permittee. (**Appendix 6**)

## Compliance Method: Within 60 days of issuance of this permit, the permittee shall:

- (1) Install and operate a pressure gauge to measure the pressure drop (inches of water) across the fabric filter(s) / baghouse(s). Within 60 days of issuance of this permit, the permittee shall compile 30 consecutive operating days of pressure drop readings across the fabric filter(s) / baghouse(s). The designated person(s) shall note any relevant baghouse conditions/problems/concerns when recording the values. The records shall also include the initials of the person performing the pressure drop reading, any corrective action(s), along with the date, time, and any relevant comments. Days that the source is not in operation shall be noted.
- (2) Submit the pressure drop data, including a "**proposed**" minimum pressure drop value, to the Division no later than 15 days after completion of the initial 30 consecutive operating days of pressure drop readings.
- (3) Assure continued compliance by maintaining the "proposed" minimum pressure drop across each baghouse (unless notified by the Division that an alternate pressure drop must be used), recording one pressure drop reading per day while the source is in operation; conducting visual inspections of the exterior of the baghouse and the baghouse ductwork, including the baghouse exhaust; and maintaining the log in **Appendix 8**. If the permittee finds that a sub-minimum pressure drop, abrasion hole, emissions problem, or plugging problem has developed during an inspection of the baghouse(s), the permittee shall initiate corrective action within 24 hours and complete corrective action as expediently as practical. The permittee shall record all corrective action taken including the initiation and completion of all corrective actions in the log.
- (4) For lower pressure drop reading(s) resulting from replacement of bags, the permittee shall record the deviation(s) in the log. Due allowance will be made for lower pressure drop reading(s) which follow replacement of bags provided the permittee establishes to the satisfaction of the Technical Secretary that these lower readings resulted from the replacement of bags.
- (5) In summary, the log shall include the initials of the person performing the pressure drop reading and inspection, any corrective action(s)/deviation(s), along with the date, time, and any relevant comments. Days that the source is not in operation shall be noted. These records shall be retained in accordance with **Condition G8**.

TAPCR 1200-03-09-.03(8)

Page 35 of 49 RDA-1298

# S30-5. Source-Specific Visible Emissions Limitation(s)

Visible emissions from this source shall not exhibit greater than (10%) opacity. A stack is defined as any chimney, flue, conduit, exhaust, vent, or opening of any kind whatsoever, capable of, or used for, the emission of air contaminants.

TAPCR 1200-03-05-.01(3) and the information contained in the agreement letter dated April 3, 2024, from the permittee. (**Appendix 6**)

**Compliance Method:** When required to demonstrate compliance, visible emissions shall be determined by EPA Method 9, as published in the current 40 CFR 60, Appendix A (six-minute average).

## (End of conditions)

The permit application gives the location of this source as 35.985771, Latitude and -85.020745, Longitude.

Page 36 of 49 RDA-1298

## **Appendix 1: Notification of Change in Responsible Person Facility** (Permittee): AHF, LLC d/b/a Crossville, Inc. – Plant 1 **Facility ID:** 18-0086 Former Responsible **Person:** Name Title **New Responsible Person:** Name Title **Email Date New Responsible Person was assigned this duty:** As the Responsible Person of the above-mentioned facility (permittee), I certify that the information contained in this Notification is accurate and true to the best of my knowledge. As specified in Tennessee Code Annotated Section 39-16-702(a)(4), this declaration is made under penalty of perjury. Signature Date Signer's name (print) Title Phone (with area code)

# **Appendix 2: Notification of Changes**

Facility (Permi	ttee):	AHF, LLC d/b/a Crossville, Inc. – Plant 1						
Facility ID:		18-0086						
Source Number	r:							
	Control Equipment	Stack Height (Feet)	Stack Diameter (Feet)	Exit Velocity (Feet/Second)	Exit Temperature (°F)			
Current								
Proposed								
Current								
Proposed								
Current								
Proposed								
Comments:  As the Responsible Person of the above-mentioned facility (permittee), I certify that the information contained in this Notification is accurate and true to the best of my knowledge. As specified in Tennessee Code Annotated Section 39-16-702(a)(4), this declaration is made under penalty of perjury.								
Signature				Date				
Signer's name	(print)	Title		Phone (with are	a code)			

Page 38 of 49 RDA-1298

## **Appendix 3: Notification of Ownership Change**

Facility (Permittee): AHF, LLC	d/b/a Crossville, Inc. – Pl	ant 1 (Previous Owner)		
<b>Facility ID:</b> 18-0086	<u> </u>			
Facility (Permittee):		(New Owner) Date of Ownership Change		
Secretary of State Control Number:		[as registered with the TN Secretary of State (SOS)]		
Responsible Person/Authorized Contact		Email Address		
Mailing Address		Phone with area code		
Principal Technical Contact		Email Address		
Mailing Address		Phone with area code		
Billing Contact		Email Address		
Mailing Address	Phone with area code			
As the responsible person for the new owner	or operator of the above-n	nentioned facility (permittee):		
• I agree to not make any changes to Division 1200-03 or Division 0400-		at meet the definition of modification as defined in		
	Control Regulations, the	<b>listed below</b> , Division 1200-03 and Division 0400- Tennessee Air Quality Act, and any documented etary.		
List all active permits issued to the facility	for which the owner wish	es to assume ownership:		
The information contained in this Notificatio Code Annotated Section 39-16-702(a)(4), thi		e best of my knowledge. As specified in Tennessee or penalty of perjury.		
Signature		Date		
Signer's name (print)	Title	Phone (with area code)		
	•	·		

Page 39 of 49 RDA-1298

<sup>&</sup>lt;sup>1</sup> Appropriate application forms must be submitted prior to modification of the stationary source(s).

#### **Appendix 4: Fees**

All minor and conditional major source annual emission fees are due and payable to the Division in full according to SCHEDULE I below<sup>2</sup> unless otherwise specified in TAPCR 1200-03-26-.02(6)(c). The county that a source is located in determines when the minor source annual emission fee is due. Fees are due the first day of the month listed. If a source is located on contiguous property in more than one county, the county appearing earliest in the calendar year shall be used to determine the due date of the annual emission fee.

SCHEDULE I
Month the Annual Emissions Fee is Due (Accounting Period)
Counties in the Monthly Grouping

January	Anderson, Bedford, Benton, Bledsoe, Blount, Bradley and Campbell
February	Cannon, Carroll, Carter, Cheatham, Chester, Claiborne, Clay and Cocke
March	Coffee, Crockett, Cumberland, Davidson, Decatur, DeKalb, Dickson, Dyer and Fayette
April	Fentress, Franklin, Gibson, Giles, Grainger, Greene and Grundy
May	Hamblen, Hamilton, Hancock, Hardeman, Hardin, Hawkins, Haywood and Henderson
June	Henry, Hickman, Houston, Humphreys, Jackson, Jefferson, Johnson, Knox, Lake, Lauderdale, Lawrence and Lewis
July	Lincoln, Loudon, McMinn, McNairy, Macon and Madison
August	Marion, Marshall, Maury, Meigs, Monroe, Montgomery, Moore and Morgan
September	Obion, Overton, Perry, Pickett, Polk, Putnam and Rhea
October	Roane, Robertson, Rutherford, Scott, Sequatchie, Sevier, and Shelby
November	Smith, Stewart, Sullivan, Sumner, Tipton, Trousdale, Unicoi and Union
December	Van Buren, Warren, Washington, Wayne, Weakley, White, Williamson and Wilson

Page 40 of 49 RDA-1298

<sup>&</sup>lt;sup>2</sup> Note that some sources with allowable emissions below specific thresholds are not subject to the requirement to pay annual emission fees. Contact the Emission Inventory Program at <a href="mailto:apc.inventory@tn.gov">apc.inventory@tn.gov</a> if you have any questions.

## **Appendix 5: Emission Statement for VOC and NO**<sub>X</sub>

Not Applicable

Page 41 of 49 RDA-1298

## **Appendix 6: Agreement Letters**

Page 42 of 49 RDA-1298



April 3, 2024

Tennessee Department of Environment and Conservation Division of Air Pollution Control William R. Snodgrass Tennessee Tower, 15th Floor 312 Rosa L. Parks Avenue Nashville, TN 37243

RE: Permit Agreement Letter - Revision #3

Crossville Inc. Plant #1

346 Sweeney Drive Crossville, TN 38555

Emission Source 18-0086

Dear Ms. Owenby:

On behalf of Crossville Inc., the following permit limitations are agreed upon for the sources listed below, located at the above referenced facility:

Source No. 18-0086-03 Kiln

Particulate Matter:

0.44 pounds per hour from

both kilns

Sulfur Dioxide:

3.38 pounds per hour

Source No. 18-0086-04

Particulate Matter:

2.74 pounds per hour

Sulfur Dioxide:

0.005 pounds per hour

Source No. 18-0086-12 (NSPS UUU)

Sulfur Dioxide:

0.01 pounds per hour

Source No. 18-0086-13 Kiln

Particulate Matter:

0.64 pounds per hour and 2.8

tons per year

Sulfur Dioxide:

4.7 pounds per hour

Opacity Limit:

10%

Source No. 18-0086-23 Kiln

Particulate Matter:

0.1 pounds per hour

Sulfur Dioxide:

0.33 pounds per hour

Opacity Limit:

10%

Source No. 18-0086-24 Kiln

Particulate Matter:

0.2 pounds per hour

Sulfur Dioxide:

1.0 pounds per hour

Opacity Limit:

10%

Source No. 18-0086-26 Baghouse

Particulate Matter:

0.5 pounds per hour

Opacity Limit:

10%

Source No. 18-0086-28 Baghouse

Particulate Matter:

0.46 pounds per hour

Opacity Limit:

10%

Source No. 18-0086-29 Baghouse

Particulate Matter:

0.063 pounds per hour

Opacity Limit:

10%

Source No. 18-0086-30 Baghouse

Particulate Matter:

0.063 pounds per hour

Opacity Limit:

10%



The maximum emission rate from the entire facility for any single hazardous air pollutant (HAP), listed pursuant to Section 112(b) of the Federal Act, shall not exceed 9.9 tons per year. Total emissions of all HAPs from the entire facility shall not exceed 24.9 tons per year. Uncontrolled maximum potential emissions calculations based on each source's designed maximum input rate are attached.

For the above referenced sources 18-0086-03, 18-0086-13, 18-0086-23, and 18-0086-24, Crossville Inc. shall assure compliance with the agreed particulate matter and sulfur dioxide limitations by not exceeding the respective material and heat input limits for these kilns, and by only using natural gas or propane fuel.

For the above referenced source 18-0086-04, Crossville Inc. shall assure compliance with agreed particulate matter and sulfur dioxide limitations by not exceeding the established material and heat input limits, by only operating with and properly maintaining a wet scrubber control device, and by only using natural gas or propane fuel.

For the above referenced source 18-0086-12, Crossville Inc. shall assure compliance with agreed sulfur dioxide limitations only using natural gas or propane fuel.

For the above referenced sources 18-0086-26, 18-0086-28, 18-0086-29, and 18-0086-30, Crossville Inc. shall assure compliance with particulate matter limitations by only operating with and properly maintaining the baghouse control devices associated with each of these emission units.

At the time of permit issuance, the AHF Products dba Crossville, Inc. Plant 1 is reporting that there are no insignificant or exempt activities/emission units that emit any HAPs. If AHF Products dba Crossville, Inc. Plant 1 adds insignificant or exempt activities/emission units that emit Haps. The AHF Products dba Crossville, Inc. Plant 1 shall provide notification to the Division of the change in facility HAPs emissions at least 30 days prior to the installation of each insignificant activity/emission unit [TAPCR 1200-03-09-.04(4)(a)] or at least 30 days prior to the installation of each exempt air contaminant source [TAPCR 1200-03-09-.04(4)(b), (c), or (d)].

On behalf of Crossville Inc., I agree to the above limitations. I am authorized to represent and bind the facility in environmental affairs.

Signature

Name (printed) John

931.484.8418

Web

## **Appendix 7: Example Logs – Facility ID: 18-0086**

Material Input Recordkeeping (Daily Average)

Material Input Log for Source ID #\_\_\_\_ Month:\_\_\_\_ Year:\_\_\_\_

Day	Material Input (lbs.)	Hours of Operation	*Daily Average Material Input (lbs./hr.)	Day	Material Input (lbs.)	Hours of Operation	*Daily Average Material Input (lbs./hr.)
1				17			
2				18			
3				19			
4				20			
5				21			
6				22			
7				23			
8				24			
9				25			
10				26			
11				27			
12				28			
13				29	·		
14				30			
15				31			
16							

<sup>\*</sup>The daily average basis is to be calculated by dividing the mass value of a day's <material> input (lbs.) by the hours of operation for that same day.

Page 45 of 49 RDA-1298

Appendix 8: Example Logs – Baghouses Pressure drop Readings / Inspection log-

**Facility ID: 18-0086** 

202_ DAILY BAGHOUSE READINGS (INCHES OF WATER) / INSPECTION Facility ID: 18-0086								
Baghouse ID:								
	JAN□ I	FEB□ M	AR□ API			JUL□ AUG□		]
	1 <sup>st</sup> Shift □Shift Start Time: Shift End Time:							
						Shift End Tir		
						Shift End Tin	ne:	
	Reading		s Source ating?	Bagh opera			Comments / Corrective	
Day	Time	Yes	No	Yes	No	Inches of water	Actions	Initials
1	711110					menes of water	710010113	micials
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								
31								

#### Appendix 9: General Provisions for 40 CFR Part 60, Subpart UUU

You are required to comply with the following General Provisions of the federal Standards of Performance for New Stationary Sources (NSPS):

General provisions citation 40 CFR	Subject of citation	Applies to subpart	Explanation
	General applicability of the General Provisions	Yes □ No □	
§60.2	Definitions	Yes □ No □	
§60.3	Units and abbreviations	Yes □ No □	
§60.4	Address	Yes □ No □	
	Determination of construction or modification	Yes □ No □	
§60.6	Review of plans	Yes □ No □	
§60.7	Notification and Recordkeeping	Yes □ No □	
§60.8	Performance tests	Yes □ No □	
§60.9	Availability of information	Yes □ No □	
§60.10	State Authority	Yes □ No □	
§60.11	Compliance with standards and maintenance requirements	Yes □ No □	
§60.12	Circumvention	Yes □ No □	
§60.13	Monitoring requirements	Yes □ No □	
§60.14	Modification	Yes □ No □	
§60.15	Reconstruction	Yes □ No □	
§60.16	Priority list	Yes □ No □	
§60.17	Incorporations by reference	Yes □ No □	
§60.18	General control device requirements	Yes □ No □	
	General notification and reporting requirements	Yes □ No □	

TAPCR 1200-03-09-.03(8)

#### **Appendix 10: General Provisions for 40 CFR Part 63, Subpart RRRRRR**

You are required to comply with the following General Provisions of the federal National Emission Standards for Hazardous Air Pollutants (NESHAP):

	7.		
General Provisions Citation 40 CFR	Subject of Citation	Applies to Subpart	Explanation
63.1	Applicability	Yes □ No □	
63.2	Definitions	Yes □ No □	
63.3	Units and Abbreviations	Yes □ No □	
63.4	Prohibited Activities and Circumvention	Yes □ No □	
63.5	Preconstruction Review and Notification Requirements	Yes 🗆 No 🗆	
63.6(a), (b), (c)	Compliance with Standards and Maintenance Requirements— Applicability Compliance Dates	Yes □ No □	
63.6(e)	Operation and Maintenance Requirements	Yes □ No □	
	Compliance with Non-opacity Emission Standards	Yes □ No □	
63.7(a), (e), (f), (g), (h)	Performance Testing Requirements	Yes □ No □	
63.8	Monitoring Requirements	Yes □ No □	
63.9	Notification Requirements	Yes □ No □	
63.10	Recordkeeping and Reporting Requirements	Yes □ No □	
63.11	Control Device Requirements	Yes □ No □	
63.12	State Authorities and Delegations	Yes □ No □	
63.13	Addresses	Yes □ No □	
63.14	Incorporations by Reference	Yes □ No □	
63.15	Availability of Information and Confidentiality	Yes □ No □	
63.16	Performance Track Provisions	Yes □ No □	

TAPCR 1200-03-09-.03(8)

Page 49 of 49 RDA-1298