global environmental solutions

Rhodes Brick & Block Company

St. Albans Site

St. Albans, West Virginia

Rule 13 Permit Modification Application

SLR Ref: 116.01228.00006

October 2016

October 14, 2016

Bev McKeone
NSR Permitting Supervisor
WVDEP Division of Air Quality
601 57th Street, SE
Charleston, West Virginia 25304

Re: 45CSR13, Rule 13 Permit Modification Application
Rhodes Brick & Block Company, St. Albans Site

Dear Ms. McKeone,

SLR International Corporation (SLR) has prepared the attached Rule 13 Permit Modification Application on behalf of Rhodes Brick & Block Company (Rhodes) for the replacement of a cement silo/storage bin and baghouse at the St. Albans Site in St. Albans, West Virginia.

If any additional information is needed, feel free to contact me by telephone at (304) 932-3107 or by email at nlanham@slrconsulting.com.

Sincerely,
SLR International Corporation

Nathaniel L. Lanham
WV Operations Manager

cc Rick Rhodes, Rhodes Brick & Block Company

Enc 45CSR13 Permit Modification Application

Rule 13 Permit Modification Application

Prepared for:

Rhodes Brick & Block Company
107 Industrial Road
St. Albans, West Virginia

This document has been prepared by SLR International Corporation. The material and data in this permit application were prepared under the supervision and direction of the undersigned.

Kaitlan Locke
Staff Scientist

N L Lanham

Nathaniel L Lanham
WV Operations Manager

CONTENTS

ATTACHMENTS

APPLICATION FOR PERMIT
ATTACHMENT A ..... BUSINESS CERTIFICATE
ATTACHMENT B ..... MAP(S)
ATTACHMENT C ..... INSTALLATION AND START-UP SCHEDULE (SEE NOTES)
ATTACHMENT D ..... REGULATORY DISCUSSION
ATTACHMENT E ..... PLOT PLAN
ATTACHMENT F ..... PROCESS FLOW DIAGRAM
ATTACHMENT G ..... PROCESS DESCRIPTION
ATTACHMENT H ..... SAFETY DATA SHEETS
ATTACHMENT I .....EMISSION UNITS TABLE
ATTACHMENT J ..... EMISSION POINTS DATA SUMMARY SHEET(S)
ATTACHMENT K .. FUGITIVE EMISSION DATA SUMMARY SHEET(S) (SEE NOTES)
ATTACHMENT L ..... EMISSION UNIT DATA SHEET(S)
ATTACHMENT M..... AIR POLLUTION CONTROL DEVICE SHEET(S) (SEE NOTES)
ATTACHMENT N ..... SUPPORTING EMISSION CALCULATIONS
ATTACHMENT O . MONITORING/RECORDKEEPING/REPORTING/TESTING PLANS
ATTACHMENT P ..... PUBLIC NOTICE
ATTACHMENT Q ..... BUSINESS CONFIDENTIAL CLAIMS (SEE NOTES)
ATTACHMENT R ..... AUTHORITY FORMS
ATTACHMENT S ..... TITLE V PERMIT REVISION INFORMATION (SEE NOTES)
APPLICATION FEE

Notes

ATTACHMENT K: N/A – No change in fugitive emissions occurred from this modification

ATTACHMENT Q: N/A – No information contained within this application claimed as confidential

ATTACHMENT R: N/A – No delegation of Authority Needed

ATTACHMENT S: N/A – Not a Title V Source

APPLICATION FOR PERMIT

Rule 13 Permit Modification Application

St. Albans Site
St. Albans, West Virginia

Rhodes Brick & Block Company
107 Industrial Road
St. Albans, West Virginia

October 2016

WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION

DIVISION OF AIR QUALITY

601 57th Street, SE
Charleston, WV 25304
(304) 926-0475
www.dep.wv.gov/daq

APPLICATION FOR NSR PERMIT AND TITLE V PERMIT REVISION (OPTIONAL)

PLEASE CHECK ALL THAT APPLY TO **NSR (45CSR13)** (IF KNOWN):

☐ **CONSTRUCTION** ☒ **MODIFICATION** ☐ **RELOCATION**
☐ **CLASS I ADMINISTRATIVE UPDATE** ☐ **TEMPORARY**
☐ **CLASS II ADMINISTRATIVE UPDATE** ☐ **AFTER-THE-FACT**

PLEASE CHECK TYPE OF **45CSR30 (TITLE V)** REVISION (IF ANY):

☐ **ADMINISTRATIVE AMENDMENT** ☐ **MINOR MODIFICATION**
☐ **SIGNIFICANT MODIFICATION**

IF ANY BOX ABOVE IS CHECKED, INCLUDE TITLE V REVISION INFORMATION AS **ATTACHMENT S** TO THIS APPLICATION

FOR TITLE V FACILITIES ONLY: Please refer to "Title V Revision Guidance" in order to determine your Title V Revision options (Appendix A, "Title V Permit Revision Flowchart") and ability to operate with the changes requested in this Permit Application.

Section I. General

1. Name of applicant *(as registered with the WV Secretary of State's Office):*
Rhodes Brick & Block Company

2. Federal Employer ID No. ***(FEIN):***
55-0536067

3. Name of facility *(if different from above):*
St. Albans Site

4. The applicant is the:
☐ **OWNER** ☐ **OPERATOR** ☒ **BOTH**

5A. Applicant's mailing address:
107 Industrial Road
St. Albans, West Virginia 25177

5B. Facility's present physical address:
Same

6. **West Virginia Business Registration.** Is the applicant a resident of the State of West Virginia? ☒ **YES** ☐ **NO**

- If **YES,** provide a copy of the **Certificate of Incorporation/Organization/Limited Partnership** (one page) including any name change amendments or other Business Registration Certificate as **Attachment A.**
- If **NO,** provide a copy of the **Certificate of Authority/Authority of L.L.C./Registration** (one page) including any name change amendments or other Business Certificate as **Attachment A.**

7. If applicant is a subsidiary corporation, please provide the name of parent corporation:

8. Does the applicant own, lease, have an option to buy or otherwise have control of the *proposed site?* ☒ **YES** ☐ **NO**

- If **YES,** please explain: The applicant owns the site.
- If **NO,** you are not eligible for a permit for this source.

9. Type of plant or facility (stationary source) to be **constructed, modified, relocated, administratively updated** or **temporarily permitted** (e.g., coal preparation plant, primary crusher, etc.): Cement silo and baghouse

10. North American Industry Classification System **(NAICS)** code for the facility:
327331

11A. DAQ Plant ID No. (for existing facilities only):
039-00110

11B. List all current 45CSR13 and 45CSR30 (Title V) permit numbers associated with this process (for existing facilities only):
R13-0426

All of the required forms and additional information can be found under the Permitting Section of DAQ's website, or requested by phone.

12A.

- For **Modifications, Administrative Updates** or **Temporary permits** at an existing facility, please provide directions to the *present location* of the facility from the nearest state road;
- For **Construction** or **Relocation permits,** please provide directions to the *proposed new site location* from the nearest state road. Include a **MAP** as **Attachment B**.

Traveling along WV-817 S/Winfield Rd, take a left onto Co Rte 35/21. Take an immediate left onto Industrial Road and the Site is on the right.

12.B. New site address (if applicable):	12C. Nearest city or town:	12D. County:
N/A	St. Albans	Kanawha
12.E. UTM Northing (KM): 4251.883	12F. UTM Easting (KM): 425.039	12G. UTM Zone: 17

13. Briefly describe the proposed change(s) at the facility:
Rhodes is proposing to make a like-kind replacement of the current cement silo and its emission control, the baghouse.

14A. Provide the date of anticipated installation or change: Upon approval – If this is an **After-The-Fact** permit application, provide the date upon which the proposed change did happen: / /	14B. Date of anticipated Start-Up if a permit is granted: Upon approval

14C. Provide a **Schedule** of the planned **Installation** of/**Change** to and **Start-Up** of each of the units proposed in this permit application as **Attachment C** (if more than one unit is involved).

15. Provide maximum projected **Operating Schedule** of activity/activities outlined in this application:
Hours Per Day 24 Days Per Week 7 Weeks Per Year 52

16. Is demolition or physical renovation at an existing facility involved? ☐ **YES** ☒ **NO**

17**. Risk Management Plans.** If this facility is subject to 112(r) of the 1990 CAAA, or will become subject due to proposed changes (for applicability help see www.epa.gov/ceppo), submit your **Risk Management Plan (RMP)** to U. S. EPA Region III.

18**. Regulatory Discussion.** List all Federal and State air pollution control regulations that you believe are applicable to the proposed process *(if known).* A list of possible applicable requirements is also included in Attachment S of this application (Title V Permit Revision Information). Discuss applicability and proposed demonstration(s) of compliance *(if known).* Provide this information as **Attachment D.**

Section II. Additional attachments and supporting documents.

19. Include a check payable to WVDEP – Division of Air Quality with the appropriate **application fee** (per 45CSR22 and 45CSR13).

20. Include a **Table of Contents** as the first page of your application package.

21. Provide a **Plot Plan,** e.g. scaled map(s) and/or sketch(es) showing the location of the property on which the stationary source(s) is or is to be located as **Attachment E** (Refer to ***Plot Plan Guidance***) **.**

– Indicate the location of the nearest occupied structure (e.g. church, school, business, residence).

22. Provide a **Detailed Process Flow Diagram(s)** showing each proposed or modified emissions unit, emission point and control device as **Attachment F.**

23. Provide a **Process Description** as **Attachment G.**

– Also describe and quantify to the extent possible all changes made to the facility since the last permit review (if applicable).

All of the required forms and additional information can be found under the Permitting Section of DAQ's website, or requested by phone.

24. Provide **Material Safety Data Sheets (MSDS)** for all materials processed, used or produced as **Attachment H.**

– For chemical processes, provide a MSDS for each compound emitted to the air.

25. Fill out the **Emission Units Table** and provide it as **Attachment I.**

26. Fill out the **Emission Points Data Summary Sheet (Table 1 and Table 2)** and provide it as **Attachment J.**

27. Fill out the **Fugitive Emissions Data Summary Sheet** and provide it as **Attachment K.**

28. Check all applicable **Emissions Unit Data Sheets** listed below:

☐ Bulk Liquid Transfer Operations	☐ Haul Road Emissions	☐ Quarry
☐ Chemical Processes	☐ Hot Mix Asphalt Plant	☐ Solid Materials Sizing, Handling and Storage Facilities
☐ Concrete Batch Plant	☐ Incinerator	☐ Storage Tanks
☐ Grey Iron and Steel Foundry	☐ Indirect Heat Exchanger	

☒ General Emission Unit, specify: Cement silo/storage bin

Fill out and provide the **Emissions Unit Data Sheet(s)** as **Attachment L.**

29. Check all applicable **Air Pollution Control Device Sheets** listed below:

☐ Absorption Systems	☒ Baghouse	☐ Flare
☐ Adsorption Systems	☐ Condenser	☐ Mechanical Collector
☐ Afterburner	☐ Electrostatic Precipitator	☐ Wet Collecting System

☐ Other Collectors, specify

Fill out and provide the **Air Pollution Control Device Sheet(s)** as **Attachment M.**

30. Provide all **Supporting Emissions Calculations** as **Attachment N,** or attach the calculations directly to the forms listed in Items 28 through 31.

31. **Monitoring, Recordkeeping, Reporting and Testing Plans.** Attach proposed monitoring, recordkeeping, reporting and testing plans in order to demonstrate compliance with the proposed emissions limits and operating parameters in this permit application. Provide this information as **Attachment O.**

➢ Please be aware that all permits must be practically enforceable whether or not the applicant chooses to propose such measures. Additionally, the DAQ may not be able to accept all measures proposed by the applicant. If none of these plans are proposed by the applicant, DAQ will develop such plans and include them in the permit.

32. **Public Notice.** At the time that the application is submitted, place a **Class I Legal Advertisement** in a newspaper of general circulation in the area where the source is or will be located (See 45CSR§13-8.3 through 45CSR§13-8.5 and ***Example Legal Advertisement*** for details). Please submit the **Affidavit of Publication** as **Attachment P** immediately upon receipt.

33. **Business Confidentiality Claims.** Does this application include confidential information (per 45CSR31)?

☐ **YES** ☒ **NO**

➢ If **YES,** identify each segment of information on each page that is submitted as confidential and provide justification for each segment claimed confidential, including the criteria under 45CSR§31-4.1, and in accordance with the DAQ's ***"Precautionary Notice – Claims of Confidentiality"*** guidance found in the ***General Instructions*** as **Attachment Q.**

Section III. Certification of Information

34. **Authority/Delegation of Authority.** Only required when someone other than the responsible official signs the application. Check applicable **Authority Form** below:

☐ Authority of Corporation or Other Business Entity	☐ Authority of Partnership
☐ Authority of Governmental Agency	☐ Authority of Limited Partnership

Submit completed and signed **Authority Form** as **Attachment R.**

All of the required forms and additional information can be found under the Permitting Section of DAQ's website, or requested by phone.

35A. **Certification of Information.** To certify this permit application, a Responsible Official (per 45CSR§13-2.22 and 45CSR§30-2.28) or Authorized Representative shall check the appropriate box and sign below.

Certification of Truth, Accuracy, and Completeness

I, the undersigned ☒ **Responsible Official** / ☐ **Authorized Representative,** hereby certify that all information contained in this application and any supporting documents appended hereto, is true, accurate, and complete based on information and belief after reasonable inquiry I further agree to assume responsibility for the construction, modification and/or relocation and operation of the stationary source described herein in accordance with this application and any amendments thereto, as well as the Department of Environmental Protection, Division of Air Quality permit issued in accordance with this application, along with all applicable rules and regulations of the West Virginia Division of Air Quality and W.Va. Code § 22-5-1 et seq. (State Air Pollution Control Act). If the business or agency changes its Responsible Official or Authorized Representative, the Director of the Division of Air Quality will be notified in writing within 30 days of the official change.

Compliance Certification

Except for requirements identified in the Title V Application for which compliance is not achieved, I, the undersigned hereby certify that, based on information and belief formed after reasonable inquiry, all air contaminant sources identified in this application are in compliance with all applicable requirements.

SIGNATURE Rick Rhodes *(Please use blue ink)* DATE: 10-13-16 *(Please use blue ink)*

35B. Printed name of signee: Rick Rhodes		35C. Title: Vice President
35D. E-mail: rick@rhodesblock.com	36E. Phone: 304-727-7062	36F. FAX: 304-722-1822
36A. Printed name of contact person (if different from above): Nathaniel L. Lanham		36B. Title: WV Manager
36C. E-mail: nlanham@slrconsulting.com	36D. Phone: 3049323107	36E. FAX: 6812058969

PLEASE CHECK ALL APPLICABLE ATTACHMENTS INCLUDED WITH THIS PERMIT APPLICATION:

- ☒ **Attachment A: Business Certificate**
- ☒ **Attachment B: Map(s)**
- ☒ **Attachment C: Installation and Start Up Schedule**
- ☒ **Attachment D: Regulatory Discussion**
- ☒ **Attachment E: Plot Plan**
- ☒ **Attachment F: Detailed Process Flow Diagram(s)**
- ☒ **Attachment G: Process Description**
- ☒ **Attachment H: Material Safety Data Sheets (MSDS)**
- ☒ **Attachment I: Emission Units Table**
- ☒ **Attachment J: Emission Points Data Summary Sheet**
- ☐ **Attachment K: Fugitive Emissions Data Summary Sheet**
- ☒ **Attachment L: Emissions Unit Data Sheet(s)**
- ☒ **Attachment M: Air Pollution Control Device Sheet(s)**
- ☒ **Attachment N: Supporting Emissions Calculations**
- ☒ **Attachment O: Monitoring/Recordkeeping/Reporting/Testing Plans**
- ☒ **Attachment P: Public Notice**
- ☐ **Attachment Q: Business Confidential Claims**
- ☐ **Attachment R: Authority Forms**
- ☐ **Attachment S: Title V Permit Revision Information**
- ☒ **Application Fee**

Please mail an original and three (3) copies of the complete permit application with the signature(s) to the DAQ, Permitting Section, at the address listed on the first page of this application. Please DO NOT fax permit applications.

FOR AGENCY USE ONLY – IF THIS IS A TITLE V SOURCE:

- ☐ ***Forward 1 copy of the application to the Title V Permitting Group and:***
- ☐ ***For Title V Administrative Amendments:***
  - ☐ ***NSR permit writer should notify Title V permit writer of draft permit,***
- ☐ ***For Title V Minor Modifications:***
  - ☐ ***Title V permit writer should send appropriate notification to EPA and affected states within 5 days of receipt,***
  - ☐ ***NSR permit writer should notify Title V permit writer of draft permit.***
- ☐ ***For Title V Significant Modifications processed in parallel with NSR Permit revision:***
  - ☐ ***NSR permit writer should notify a Title V permit writer of draft permit,***
  - ☐ ***Public notice should reference both 45CSR13 and Title V permits,***
  - ☐ ***EPA has 45 day review period of a draft permit.***

All of the required forms and additional information can be found under the Permitting Section of DAQ's website, or requested by phone.

ATTACHMENT A

BUSINESS CERTIFICATE

Rule 13 Permit Modification Application

St. Albans Site
St. Albans, West Virginia

Rhodes Brick & Block Company
107 Industrial Road
St. Albans, West Virginia

October 2016

WEST VIRGINIA
STATE TAX DEPARTMENT
BUSINESS REGISTRATION
CERTIFICATE

ISSUED TO:

RHODES TRUCKING CORPORATION
DBA RHODES BRICK & BLOCK COMPANY
107 INDUSTRIAL RD
SAINT ALBANS, WV 25177-1780

BUSINESS REGISTRATION ACCOUNT NUMBER: **1035-9128**

This certificate is issued on: **02/22/2011**

This certificate is issued by
the West Virginia State Tax Commissioner
in accordance with Chapter 11, Article 12, of the West Virginia Code

The person or organization identified on this certificate is registered to conduct business in the State of West Virginia at the location above.

This certificate is not transferrable and must be displayed at the location for which issued. This certificate shall be permanent until cessation of the business for which the certificate of registration was granted or until it is suspended, revoked or cancelled by the Tax Commissioner.

Change in name or change of location shall be considered a cessation of the business and a new certificate shall be required.

TRAVELING/STREET VENDORS: Must carry a copy of this certificate in every vehicle operated by them. CONTRACTORS, DRILLING OPERATORS, TIMBER/LOGGING OPERATIONS: Must have a copy of this certificate displayed at every job site within West Virginia.

atL006 v.4
L1726949504

ATTACHMENT B

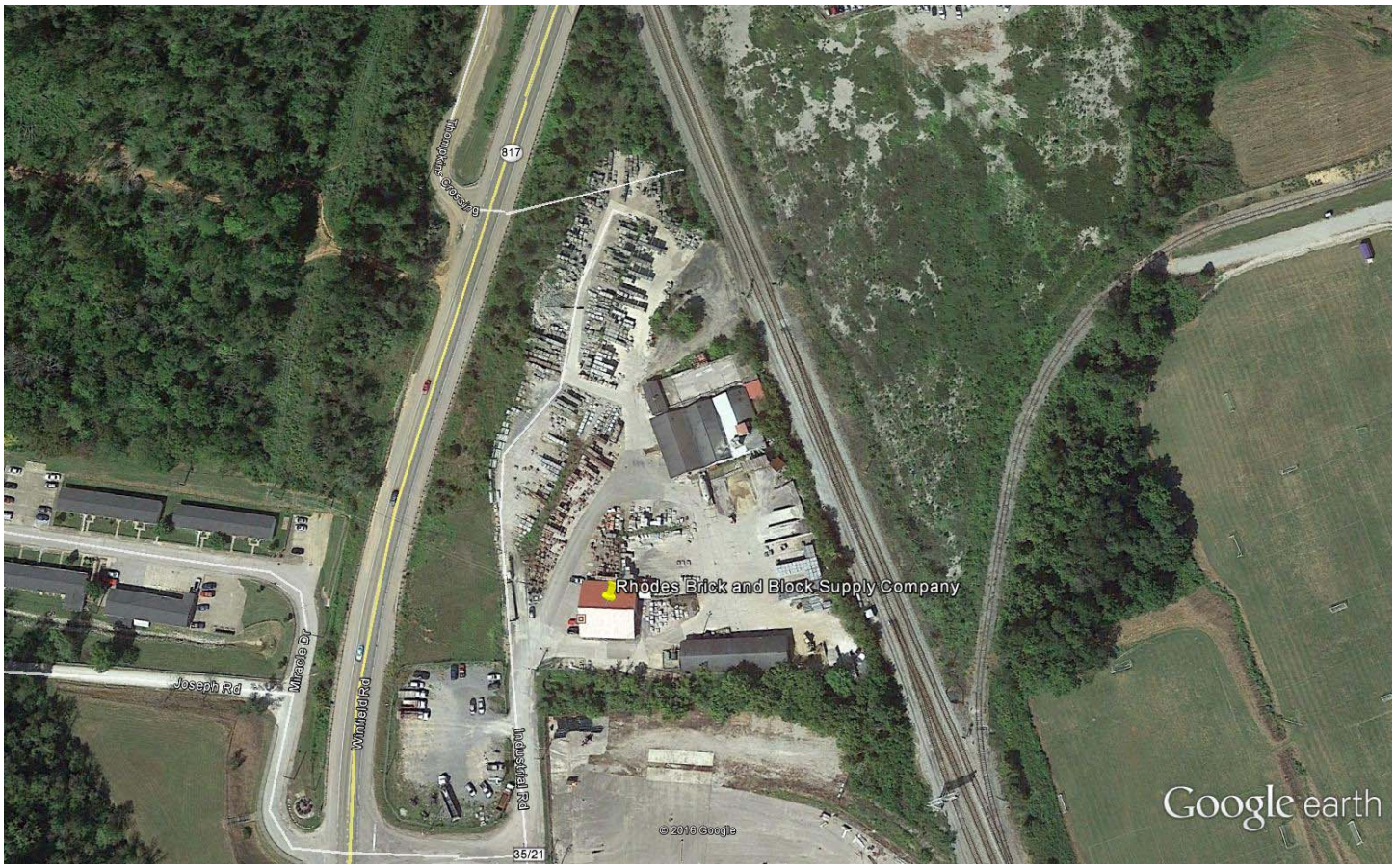
MAP

Rule 13 Permit Modification Application

St. Albans Site
St. Albans, West Virginia

Rhodes Brick & Block Company
107 Industrial Road
St. Albans, West Virginia

October 2016



Google earth

feet 700
meters 200

ATTACHMENT C

INSTALLATION AND START-UP SCHEDULE

Rule 13 Permit Modification Application

St. Albans Site
St. Albans, West Virginia

Rhodes Brick & Block Company
107 Industrial Road
St. Albans, West Virginia

October 2016

INSTALLATION AND START-UP SCHEDULE

The replacement of the existing cement silo and baghouse at the Rhodes Brick & Block Company St. Albans Site will commence upon approval from the West Virginia Department of Environmental Protection Division of Air Quality.

ATTACHMENT D

REGULATORY DISCUSSION

Rule 13 Permit Modification Application

St. Albans Site
St. Albans, West Virginia

Rhodes Brick & Block Company
107 Industrial Road
St. Albans, West Virginia

October 2016

REGULATORY DISCUSSION

We have evaluated the applicable and non-applicable regulations pertaining to the proposed modifications to the cement silo and pulse jet baghouse.

APPLICABLE REGULATIONS

The proposed modifications to the cement silo and baghouse are subject to the following applicable rules and regulations:

Federal and State:

45 CSR 13 – *Permits for Construction, Modification, Relocation, and Operation of Stationary Source of Air Pollutants*

As described in Permit Determination PD16-051, the WVDEP has identified that proposed new equipment at the facility is considered a modification under 45 CSR13.

45 CSR 17 – *To Prevent and Control Particulate Matter Air Pollution from Materials Handling, Preparation, Storage and Other Sources of Particulate Matter*

NON-APPLICABILITY DETERMINATIONS

The following requirements have been determined "not applicable" due to the following:

40 CFR 60 Subpart OOO-60.670(d)(1) – *When an existing facility is replaced by a piece of equipment of equal or smaller size, as defined in §60.671, having the same function as the existing facility, and there is no increase in the amount of emissions, the new facility is exempt from the provisions of §§60.672, 60.674, and 60.675 except as provided for in paragraph (d)(3) of this section.*

The facility is a nonmetallic mineral processing plant; however, it is not a fixed sand/gravel or crushed stone plant with a capacity > 25 tons/hour or a portable sand/gravel or crushed stone plant with a capacity > 150 tons/hour. Therefore, Subpart OOO is not applicable to the proposed modifications.

ATTACHMENT E

PLOT PLAN

Rule 13 Permit Modification Application

St. Albans Site
St. Albans, West Virginia

Rhodes Brick & Block Company
107 Industrial Road
St. Albans, West Virginia

October 2016

LEGEND

PROPERTY BOUNDARY

THIS DRAWING IS FOR CONCEPTUAL PURPOSES ONLY. ACTUAL LOCATIONS MAY VARY AND NOT ALL STRUCTURES ARE SHOWN.

0 120 240 360'

Drawing

Plot Plan

Rhodes Brick & Block
St. Albans Site
St. Albans, WV

Date: October 2016

Drawn By: Holly Keane

Attachment E - Plot Plan

Project No. 116.01228.00006

SLR

ATTACHMENT F

PROCESS FLOW DIAGRAM

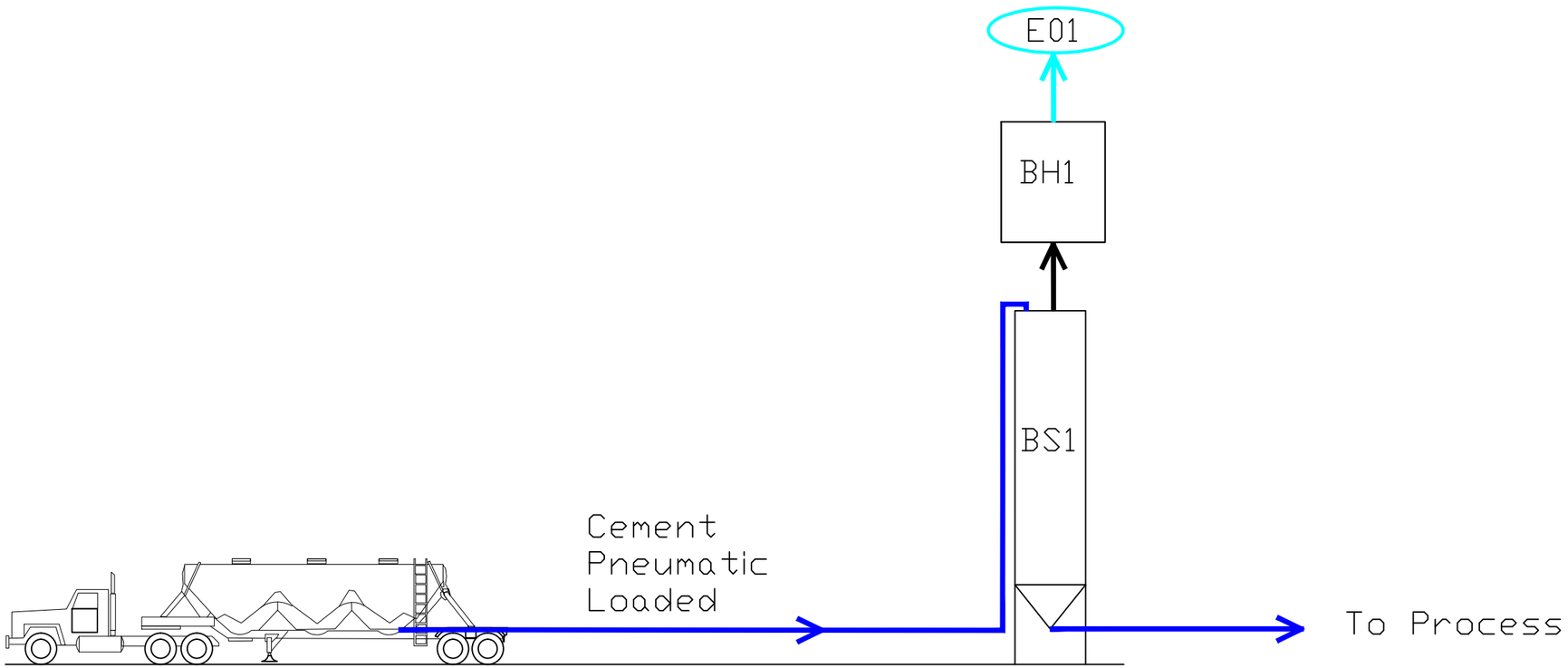
Rule 13 Permit Modification Application

St. Albans Site
St. Albans, West Virginia

Rhodes Brick & Block Company
107 Industrial Road
St. Albans, West Virginia

October 2016

Emission Unit Table	
Emission Unit ID	Emission Unit Description
BS1	Cement Silo
BH1	Baghouse



THIS DRAWING IS FOR CONCEPTUAL PURPOSES ONLY. ACTUAL LOCATIONS MAY VARY AND NOT ALL STRUCTURES ARE SHOWN.

Drawing
Process Flow Diagram

Rhodes Brick & Block
St. Albans Site
St. Albans, WV

Date: October 2016
Drawn By: CLB
Attachment F - Process Flow Diagram
Project No. 116.01228.00006

SLR

ATTACHMENT G

PROCESS DESCRIPTION

Rule 13 Permit Modification Application

St. Albans Site
St. Albans, West Virginia

Rhodes Brick & Block Company
107 Industrial Road
St. Albans, West Virginia

October 2016

PROCESS DESCRIPTION

Rhodes Brick & Block Company (Rhodes) is modifying their current St. Albans Site by replacing equipment due to maintenance and upkeep needs. The facility was constructed in 1978 and continues to operate per the original Rule 13 Permit R13-0426. Rhodes is submitting this Rule 13 Permit Modification Application due to the impending replacement of the existing cement silo (BS1) with a like-kind silo and also the replacement of the existing shaker-style baghouse (BH1) with a new, more efficient Pulse Jet Baghouse.

Cement is delivered to the facility via truck and then pneumatically transferred to the fully enclosed cement silo/storage bin (BS1) at a rate of 25 tons per hour. The facility is proposing a worst-case scenario of loading one truck per day, seven days per week. The emissions from the pneumatic transfer (T1) from the truck to the cement silo (BS1) are controlled by the baghouse (BH1), which has a control efficiency of 99.98%. BS1 feeds the currently permitted block processing facility.

ATTACHMENT H

SAFETY DATA SHEETS (SDS)

Rule 13 Permit Modification Application

St. Albans Site
St. Albans, West Virginia

Rhodes Brick & Block Company
107 Industrial Road
St. Albans, West Virginia

October 2016

Essroc
Italcementi Group

Safety Data Sheet - Portland Cement Based Materials

Section 1. Identification

GHS product identifier:	Portland Cement Based Materials
Chemical name:	Calcium compounds, calcium silicate compounds, and other calcium compounds containing iron and aluminum make up the majority of this product.
Other means of identification:	Cement, masonry cement, mortar cement, portland cement and lime, hydraulic cement, portland cement silicate, portland limestone cement. Covers Products: i.work Saylor's, i.work OPTIMO, i.work Stabil-CEM, i.pro BRIXMENT, i.pro VELVET, i.pro BRICK-LOK, i.pro BLX, i.pro Saylor's PLUS, i.pro Stabil-CEM, i.pro Contempra, i.pro VITA, i.idro Saylor's, i.tech BRIXMENT, i.tech Saylor's, i.tech STONE-HOLD, i.tech Encase-MENT, i.design flamingo-BRIXMENT
Relevant identified uses of the substance or mixture and uses advised against:	Building materials, construction, a basic ingredient in concrete.
Supplier's details:	3251 Bath Pike • Nazareth, PA 18064 • 800-437-7762 • essroc.com • us.i-nova.net County Road 49, Picton, ON. K0K 2T0 • essroc.com • us.i-nova.net
Emergency telephone number (24-hour emergency information)	800-424-9300 Chemtrec

Section 2. Hazards Identification

DANGER! Overexposure to portland cement can cause serious, potentially irreversible skin or eye damage in the form of chemical (caustic) burns, including third degree burns. The same serious injury can occur if wet or moist skin has prolonged contact exposure to dry portland cement.

Portland cement is not classifiable as a human carcinogen.

OSHA/HCS status:	This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
Canadian (WHMIS):	Portland cement products are considered to be hazardous materials under the Hazardous Products Act as defined by the Controlled Products Regulations (CPR).
Classification of the substance or mixture:	SKIN CORROSION/IRRITATION — Category 1 SERIOUS EYE DAMAGE/ EYE IRRITATION — Category 1 SKIN SENSITIZATION — Category 1 CARCINOGENICITY/INHALATION — Category 1 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) [Respiratory tract irritation] — Category 3

GHS label elements

Hazard pictograms:

Signal word: Danger

Hazard statements:

Causes severe skin burns and eye damage.

May cause an allergic skin reaction.

May cause respiratory irritation.

May cause cancer.

Precautionary statements

Prevention:

Wear protective gloves. Wear eye or face protection. Use only outdoors or in a well-ventilated area. Avoid breathing dust. Wash hands thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Causes eye and skin burns. See Section 4 for additional details. May present risk of engulfment. See Section 7 for additional details. Overexposure to wet cement can cause severe skin damage in the form of chemical burns, including third degree burns. The same severe injury can occur if wet or moist skin is exposed to dry portland cement. Clothing wet with moisture from cement can transmit the caustic effects to the skin, causing chemical burns. Portland cement causes skin burns with little warning; discomfort or pain cannot be relied upon to alert a person to a serious injury. You may not feel pain or the severity of the burn until hours after the exposure.

MEDICAL CONDITIONS WHICH MAY BE AGGRAVATED BY EXPOSURE: Contact with wet cement may aggravate existing skin conditions. Sensitivity to hexavalent chromium can be aggravated by exposure.

Response:

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Prolonged and repeated inhalation of respirable crystalline silica-containing dust in excess of appropriate exposure limits has caused silicosis, fibrosis or scar tissue formations in the lungs. Call a POISON CENTER or physician if you feel unwell. IF ON SKIN: Wash with plenty of pH neutral soap and water. Take off contaminated clothing. Wash contaminated clothing before reuse. If skin irritation or rash occurs: get medical attention. Portland cement may contain trace amounts of hexavalent chromium. Hexavalent chromium is associated with allergic skin reactions which may appear as contact dermatitis and skin ulcerations. Persons already sensitized may react to their first exposure to cement. Other individuals may develop allergic dermatitis after repeated exposure to cement. The symptoms of allergic reactions may include reddening of the skin, rash, and irritation. Symptoms of chronic exposure to wet cement may include reddening, irritation, and eczematous rashes. Drying, thickening, and cracking of the skin and nails may also occur. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Exposure to dust may cause immediate or delayed irritation or inflammation. Eye contact by larger amount of dry power or splashes of wet portland cement may cause effects ranging from moderate eye irritation to chemical burns or blindness. Immediately call a POISON CENTER or physician. IF INGESTED: Irritating to mouth, throat and stomach. Ingestion of large quantities may cause severe irritation and chemical burns of the mouth, throat, stomach and digestive tract. Do not ingest portland cement. Get immediate medical attention.

Storage: Keep container tightly closed in a dry and well-ventilated area.

Disposal: Dispose of contents and container in accordance with all local, regional, national and international regulations.

Hazards not otherwise classified: Not applicable.

Section 3. Composition/information on ingredients

Substance/mixture: Mixture

Chemical name: Calcium compounds, calcium silicate compounds, and other calcium compounds containing iron and aluminum make up the majority of this product.

Other means of identification: Cement, hydraulic cement, portland cement silicate

CAS number/other identifiers

CAS number: 65997-15-1

Product code: Not available.

Ingredient name	%	CAS number
Cement, portland chemicals	35 - 100	65997-15-1
The structure of portland cement may contain the following in some concentration ranges:		
Limestone	0 - 65	1317-65-3
Gypsum	2 - 10	13397-24-5
Hydrated Lime	0 - 50	1305-62-0
Cement Kiln Dust	0 - 15	68475-76-3
Iron Oxide	0 - 10	1309-37-1
Bentonite	0 - 10	1302-78-9
Magnesium oxide	0 - 4	1309-48-4
Calcium oxde	0 - 4	1305-78-8
Carbon Black	0 - 2	1333-66-4
Quartz	< 3	14808-60-7
Hexavalent chromium*	Trace	18450-29-9

Any concentration shown as a range is to protect confidentiality or is due to process variation.

*Hexavalent chromium is included due to dermal sensitivity associated with the component.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact: Get medical attention immediately. Call a poison center or physician. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 20 minutes. Chemical burns must be treated promptly by a physician.

Inhalation: Seek medical help if coughing or other symptoms persist. Inhalation of large amounts of portland cement requires immediate medical attention. Call a poison center or physician. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If the individual is not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway.

Skin contact: Get medical attention immediately. Heavy exposure to portland cement dust, wet concrete or associated water requires prompt attention. Quickly remove contaminated clothing, shoes, and leather goods such as watchbands and belts. Quickly and gently blot or brush away excess portland cement. Immediately wash thoroughly with lukewarm, gently flowing water and non-abrasive pH neutral soap. Seek medical attention for rashes, burns, irritation, dermatitis and prolonged unprotected exposures to wet cement, cement mixtures or liquids from wet cement. Burns should be treated as caustic burns. Portland cement causes skin burns with little warning. Discomfort or pain cannot be relied upon to alert a person to a serious injury. You may not feel pain or the severity of the burn until hours after the exposure. Chemical burns must be treated promptly by a physician. In the event of any complaints or symptoms, avoid further exposure.

Ingestion: Get medical attention immediately. Call a poison center or physician. Have victim rinse mouth thoroughly with water. DO NOT INDUCE VOMITING unless directed to do so by medical personnel. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Have victim drink 60 to 240 mL (2 to 8 oz.) of water. Stop giving water if the exposed person feels sick as vomiting may be dangerous. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Chemical burns must be treated promptly by a physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway.

Most important symptoms/effects, acute and delayed potential acute health effects

Eye contact:	Causes serious eye damage.
Inhalation:	May cause respiratory irritation.
Skin contact:	Causes severe burns. May cause an allergic skin reaction.
Ingestion:	May cause burns to mouth, throat and stomach.

Over-exposure signs/symptoms

Eye contact:	Adverse symptoms may include the following: pain, watering and redness
Inhalation:	Adverse symptoms may include the following: respiratory tract irritation and coughing
Skin contact:	Adverse symptoms may include the following: pain or irritation, redness and blistering may occur, skin burns, ulceration and necrosis may occur
Ingestion:	Adverse symptoms may include the following: stomach pains

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician:	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
Specific treatments:	Not applicable.
Protection of first-aiders:	No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media:	Use an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media:	Do not use water jet or water-based fire extinguishers.
Specific hazards arising from the chemical:	No specific fire or explosion hazard.
Hazardous thermal decomposition products:	Decomposition products may include the following materials: carbon dioxide, carbon monoxide, sulfur oxides and metal oxide/oxides
Special protective actions for fire-fighters:	Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
Special protective equipment for fire-fighters:	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel:	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Do not breathe dust. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
For emergency responders:	For personal protective clothing requirements, please see Section 8.
Environmental precautions:	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has entered the environment, including waterways, soil or air. Materials can enter waterways through drainage systems.

Methods and materials for containment and cleaning up

Small spill:	Move containers from spill area. Avoid dust generation. Do not dry sweep. Vacuum dust with equipment fitted with a HEPA filter and place in a closed, labeled waste container. Place spilled material in a designated, labeled waste container. Dispose of waste material by using a licensed waste disposal contractor.
Large spill:	Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Avoid dust generation. Do not dry sweep. Vacuum dust with equipment fitted with a HEPA filter and place dust in a closed, labeled waste container. Avoid creating dusty conditions and prevent wind dispersal. Large spills to waterways may be hazardous due to alkalinity of the product. Dispose of waste material using a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

Protective measures:	Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Avoid exposure by obtaining and following special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe dust. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material and keep the container tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
Advice on general occupational hygiene:	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
Conditions for safe storage, including any incompatibilities:	A key to using the product safely requires the user to recognize that portland cement reacts chemically with water to produce calcium hydroxide which can cause severe chemical burns. Every attempt should be made to avoid skin and eye contact with cement. Do not get portland cement inside boots, shoes or gloves. Do not allow wet, saturated clothing to remain against the skin. Promptly remove clothing and shoes that are dusty or wet with cement mixtures. Launder/clean clothing and shoes before reuse. Do not enter a confined space that stores or contains portland cement unless appropriate procedures and protection are available. Portland cement can build up or adhere to the walls of a confined space and then release or fall suddenly (engulfment).

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
Cement, portland, chemicals	ACGIH TLV (United States, 3/2012). TWA: 1 mg/m^3 8 hours. Form: Respirable fraction NIOSH REL (United States, 6/2009). TWA: 5 mg/m^3 10 hours. Form: Respirable fraction TWA: 10 mg/m^3 10 hours. Form: Total OSHA PEL (United States, 6/2010). TWA: 5 mg/m^3 8 hours. Form: Respirable fraction TWA: 15 mg/m^3 8 hours. Form: Total dust Exposure limits in Canada are under provincial jurisdictions.

Calcium oxide	ACGIH TLV (United States, 3/2012). TWA: 2 mg/m^3 8 hours. NIOSH REL (United States, 6/2009). TWA: 2 mg/m^3 10 hours. OSHA PEL (United States, 6/2010). TWA: 5 mg/m^3 8 hours. Exposure limits in Canada are under provincial jurisdictions.
Limestone	NIOSH REL (United States, 6/2009). TWA: 5 mg/m^3 10 hours. Form: Respirable fraction TWA: 10 mg/m^3 10 hours. Form: Total OSHA PEL (United States, 6/2010). TWA: 5 mg/m^3 8 hours. Form: Respirable fraction TWA: 15 mg/m^3 8 hours. Form: Total dust Exposure limits in Canada are under provincial jurisdictions.
Magnesium oxide	ACGIH TLV (United States, 3/2012). TWA: 10 mg/m^3 8 hours. Form: Inhalable fraction OSHA PEL (United States, 6/2010). TWA: 15 mg/m^3 8 hours. Form: Total particulates Exposure limits in Canada are under provincial jurisdictions.
Quartz	ACGIH TLV (United States, 3/2012). TWA: 0.025 mg/m^3 8 hours. Form: Respirable fraction NIOSH REL (United States, 6/2009). TWA: 0.05 mg/m^3 10 hours. Form: respirable dust OSHA PEL Z-3 (United States, 9/2005). TWA: 10mg/m^3 divided by %SiO_2 + 2: Respirable TWA: 30mg/m^3 divided by %SiO_2 + 2: Total Exposure limits in Canada are under provincial jurisdictions.
Calcium sulfate (gypsum)	ACGIH TLV (United States, 3/2012) TWA: 10 mg/m^3 8 hours. Form: Respirable fraction NIOSH REL (United States, 6/2009) TWA 5 mg/m^3 8 hours. Form: Respirable fraction TWA 10 mg/m^3 8 hours. Form: Total dust OSHA PEL Z-1 (United States, 2/2006) TWA 5 mg/m^3 8 hours. Form: Respirable fraction TWA 15 mg/m^3 8 hours. Form: Total dust Exposure limits in Canada are under provincial jurisdictions.

Appropriate engineering controls: Use only with adequate ventilation. If user operations generate dust, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Environmental exposure controls: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation.

Individual protection measures

Hygiene measures: Clean water should always be readily available for skin and (emergency) eye washing. Periodically wash areas contacted by portland cement with a pH neutral soap and clean, uncontaminated water. If clothing becomes saturated with portland cement, garments should be removed and replaced with clean, dry clothing.

Eye/face protection: To prevent eye contact, wear safety glasses with side shields, safety goggles or face shields when handling dust or wet cement. Wearing contact lenses when working with cement is not recommended.

Skin protection

Hand protection:	Use impervious, waterproof, abrasion and alkali-resistant gloves. Do not rely on barrier creams in place of impervious gloves. Do not get portland cement inside gloves.
Body protection:	Use impervious, waterproof, abrasion and alkali-resistant boots and protective long-sleeved and long-legged clothing to protect the skin from contact with wet portland cement. To reduce foot and ankle exposure, wear impervious boots that are high enough to prevent portland cement from getting inside them. Do not get portland cement inside boots, shoes, or gloves. Remove clothing and protective equipment that becomes saturated with cement and immediately wash exposed areas of the body.
Other skin protection:	Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved. Footwear and other gear to protect the skin should be approved by a specialist before handling this product.
Respiratory protection:	Use a properly fitted, particulate filter respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product, and assigned protection factor of the selected respirator.

Section 9. Physical and chemical properties

Appearance

Physical State:	Solid. [Powder.]	Lower and upper explosive (flammable) limits:	Not applicable.
Color:	Various (Gray or white).	Vapor pressure:	Not applicable.
Odor:	Odorless.	Vapor density:	Not applicable.
Odor threshold:	Not available.	Relative density:	2.3 to 3.1
pH:	>11.5 [Conc. (% w/w): 1%]	Solubility:	Slightly soluble in water.
Melting point:	Not available.	Solubility in water:	0.1 to 1%
Boiling point:	>1000°C (>1832°F)	Partition coefficient: n-octanol/water:	Not applicable.
Flash point:	Not flammable. Not combustible.	Auto-ignition temperature:	Not applicable.
Burning time:	Not available.	Decomposition temperature:	Not available.
Burning rate:	Not available.	SADT:	Not available.
Evaporation rate:	Not applicable.	Viscosity:	Not applicable.
Flammability (solid, gas):	Not applicable.		

Section 10. Stability and reactivity

Reactivity:	Reacts slowly with water forming hydrated compounds, releasing heat and producing a strong alkaline solution until reaction is substantially complete.
Chemical stability:	The product is stable.
Possibility of hazardous reactions:	Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid:	No specific data.
Incompatible materials:	Reactive or incompatible with the following materials: oxidizing materials, acids, aluminum and ammonium salt. Portland cement is highly alkaline and will react with acids to produce a violent, heat-generating reaction. Toxic gases or vapors may be given off depending on the acid involved. Reacts with acids, aluminum metals and ammonium salts. Aluminum powder and other alkali and alkaline earth elements will react in wet mortar or concrete, liberating hydrogen gas. Limestone ignites on contact with fluorine and is incompatible with acids, alum, ammonium salts, and magnesium. Silica reacts violently with powerful oxidizing agents such as fluorine, boron trifluoride, chlorine trifluoride, manganese trifluoride, and oxygen difluoride yielding possible fire and/or explosions. Silicates dissolve readily in hydrofluoric acid producing a corrosive gas — silicon tetrafluoride.
Hazardous decomposition products:	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity: Portland Cement LD50/LC50 = Not available

Irritation/Corrosion: Skin: May cause skin irritation. May cause serious burns in the presence of moisture.
Eyes: Causes serious eye damage. May cause burns in the presence of moisture.
Respiratory: May cause respiratory tract irritation.

Sensitization: May cause sensitization due to the potential presence of trace amounts of hexavalent chromium.

Mutagenicity: There are no data available.

Carcinogenicity:

Classification

Product/ingredient name	OSHA	IARC	ACGIH	NTP
Cement, portland, chemicals	—	—	A4	—
Quartz	—	1	A2	Known to be a human carcinogen.

Reproductive toxicity: There are no data available.

Teratogenicity: There are no data available.

Specific target organ toxicity (single exposure)

Name	Category	Route of Exposure	Target Organs
Calcium oxide	Category 3	Inhalation and skin contact	Respiratory tract irritation, skin irritation
Cement, portland, chemicals	Category 3	Inhalation and skin contact	Respiratory tract irritation, skin irritation

Specific target organ toxicity (repeated exposure)

Name	Category	Route of Exposure	Target Organs
Quartz	Category 1	Inhalation	Respiratory tract and kidneys

Aspiration hazard: There are no data available.

Information on the likely routes of exposure

Dermal contact. Eye contact. Inhalation. Ingestion.

Potential acute health effects: Eye contact: Causes serious eye damage.
Inhalation: May cause respiratory irritation.
Skin contact: Causes severe burns. May cause an allergic skin reaction.
Ingestion: May cause burns to mouth, throat and stomach.

Symptoms related to the physical, chemical and toxicological characteristics:

Eye contact: Adverse symptoms may include the following: pain, watering, redness

Inhalation: Adverse symptoms may include the following: respiratory tract irritation, coughing

Skin contact: Adverse symptoms may include the following: pain or irritation, redness, blistering may occur, skin burns, ulcerations and necrosis may occur

Ingestion: Adverse symptoms may include the following: stomach pains

Delayed and immediate effects and also chronic effects from short and long term exposure:

Short term exposure
Potential immediate effects: No known significant effects or critical hazards.
Potential delayed effects: No known significant effects or critical hazards.

Long term exposure
Potential immediate effects: No known significant effects or critical hazards.
Potential delayed effects: No known significant effects or critical hazards.

Potential chronic health effects:

General: Repeated or prolonged inhalation of dust may lead to chronic respiratory irritation. If sensitized to hexavalent chromium, a severe allergic dermal reaction may occur when subsequently exposed to very low levels.

Carcinogenicity: Portland cement is not classifiable as a human carcinogen. Crystalline silica is considered a hazard by inhalation. IARC has classified crystalline silica as a Group 1 substance, carcinogenic to humans. This classification is based on the findings of laboratory animal studies (inhalation and implantation) and epidemiology studies that were considered sufficient for carcinogenicity. Excessive exposure to crystalline silica can cause silicosis, a non-cancerous lung disease.

Mutagenicity: No known significant effects or critical hazards.

Teratogenicity: No known significant effects or critical hazards.

Developmental effects: No known significant effects or critical hazards.

Fertility effects: No known significant effects or critical hazards.

Numerical measures of toxicity:

Acute toxicity estimates: There are no data available.

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
Calcium oxide	Chronic NOEC 100 mg/L Fresh water	Fish—Oreochromis niloticus—Juvenile (Fledgling, Hatchling, Weanling)	46 days

Persistence and degradability:

There are no data available.

Bioaccumulative potential:

There are no data available.

Mobility in soil:

Soil/water partition coefficient (Koc): Not available.

Other adverse effects:

No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods:

The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Untreated waste should not be released to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe manner. Care should be taken when handling empty containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff, and contact with soil, waterways, drains and sewers.

Section 14. Transport information

	DOT Classification	IMDG	IATA
UN number	Not regulated.	Not regulated.	Not regulated.
UN proper shipping name	—	—	—
Transport hazard class(es)	—	—	—
Packing group	—	—	—
Environmental hazards	None.	None.	None.
Additional information	—	—	—

Portland Cement products are not considered hazardous under Transport Canada's Transportation of Dangerous Goods (TDG) regulations.

Special precautions for user: Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code: Not available.

Section 15. Regulatory information

U.S. Federal regulations: TSCA 6 final risk management: Chromium, ion (Cr6+)

United States inventory (TSCA 8b): Portland cements are considered to be statutory mixtures under TSCA. CAS 65997-15-1 is included on the TSCA inventory.

Clean Water Act (CWA) 307: Chromium, ion (Cr6+)

CERCLA: This product is not listed as a CERCLA substance.

Clean Air Act Section 112 (b): Hazardous Air Pollutants (HAPs) — Not listed

Clean Air Act Section 602: Class I Substances — Not listed

Clean Air Act Section 602: Class II Substances — Not listed

DEA List I Chemicals: (Precursor Chemicals) — Not listed

DEA List II Chemicals: (Essential Chemicals) — Not listed

SARA 311/312

Classification: Immediate (acute) health hazard

Delayed (chronic) health hazard

Composition/information on ingredients

Name	%	Fire hazard	Sudden release of pressure	Reactive	Immediate (acute) health hazard	Delayed (chronic) health hazard
Calcium oxide	A-B	No.	No.	No.	Yes.	No.
Quartz	< 0.2	No.	No.	No.	No.	Yes.
Chromium, ion (Cr6+)	< 0.1	No.	No.	No.	Yes.	Yes.
Nickel Compounds	< 0.1	No.	No.	No.	Yes.	Yes.
Lead (Organic & Inorganic)	< 0.1	No.	No.	No.	No.	Yes.

SARA 313

	Product name	CAS number	%
Form R—Reporting requirements	Chromium, ion (Cr6+) Lead (Organic or Inorganic) Nickel Compounds	8540-29-9 — —	< 0.1 < 0.1 < 0.1
Supplier notification	Alternatively, if any of the compounds are not present, state: This product does not contain any constituents listed under SARA Title III Section 313.		

Canada

WHMIS/DSL: Products containing crystalline silica and calcium carbonate are classified as D2A, E and are subject to WHMIS requirements.

State regulations

Massachusetts: The following components are listed: cement, portland, chemicals, limestone

New York: None of the components are listed.

New Jersey: The following components are listed: cement, portland, chemicals, gypsum, limestone

Pennsylvania: The following components are listed: cement, portland, chemicals, gypsum, limestone

California Prop. 65

WARNING: This product contains crystalline silica and chemicals (trace metals) known to the State of California to cause cancer, birth defects or other reproductive harm. California law requires the above warning in the absence of definitive testing to prove the defined risks do not exist.

Ingredient name	Cancer	Reproductive	No significant risk level	Maximum acceptable dosage level
Quartz	Yes.	No.	No.	No.
Chromium, ion (Cr6+)	Yes.	Yes.	0.001 µg/day (inhalation)	8.2 micrograms/day (ingestion)
Nickel Compounds	No.	No.	No.	No.
Lead	Yes.	Yes.	15 µg/day (ingestion)	0.5 micrograms/day (inhalation)

International regulations

International lists: Canadian Domestic Substances List (DSL): Portland cement is included on the DSL.

Mexico Inventory (INSQ): All components are listed or exempted.

Section 16. Other information

History

Date of issue mm/dd/yyyy:	05/15/2015
Version:	1
Revised Section(s):	Not applicable.

Notice to reader

While the information provided in this safety data sheet is believed to provide a useful summary of the hazards of portland cement as it is commonly used, the sheet cannot anticipate and provide all of the information that might be needed in every situation. Inexperienced product users should obtain proper training before using this product. In particular, the data furnished in this sheet do not address hazards that may be posed by other materials mixed with portland cement to produce portland cement products. Users should review other relevant material safety data sheets before working with this portland cement or working on portland cement products, for example, portland cement concrete.

SELLER MAKES NO WARRANTY, EXPRESS OR IMPLIED, CONCERNING THE PRODUCT OR THE MERCHANTABILITY OR FITNESS THEREOF FOR ANY PURPOSE OR CONCERNING THE ACCURACY OF ANY INFORMATION PROVIDED BY Essroc Cement Corp., except that the product shall conform to contracted specifications. The information provided herein was believed by the Essroc Cement Corp. to be accurate at the time of preparation or prepared from sources believed to be reliable, but it is the responsibility of the user to investigate and understand other pertinent sources of information to comply with all laws and procedures applicable to the safe handling and use of product and to determine the suitability of the product for its intended use. Buyer's exclusive remedy shall be for damages and no claim of any kind, whether as to product delivered or for non-delivery of product, and whether based on contract, breach of warranty, negligence, or otherwise shall be greater in amount than the purchase price of the quantity of product in respect of which damages are claimed. In no event shall Seller be liable for incidental or consequential damages, whether Buyer's claim is based on contract, breach of warranty, negligence or otherwise.

Abbreviations

ACGIH — American Conference of Governmental Industrial Hygienists

CAS — Chemical Abstract Service

CERCLA — Comprehensive Emergency Response and Comprehensive Liability Act

CFR — Code of Federal Regulations

DOT — Department of Transportation

GHS — Globally Harmonized System

HEPA — High Efficiency Particulate Air

IATA — International Air Transport Association

IARC — International Agency for Research on Cancer

IMDG — International Maritime Dangerous Goods

NIOSH — National Institute of Occupational Safety and Health

NOEC — No Observed Effect Concentration

NTP — National Toxicology Program

OSHA — Occupational Safety and Health Administration

PEL — Permissible Exposure Limit

REL — Recommended Exposure Limit

RQ — Reportable Quantity

SARA — Superfund Amendments and Reauthorization Act

SDS — Safety Data Sheet

TLV — Threshold Limit Value

TPQ — Threshold Planning Quantity

TSCA — Toxic Substances Control Act

TWA — Time-Weighted Average

UN — United Nations

ATTACHMENT I

EMISSION UNITS TABLE

Rule 13 Permit Modification Application

St. Albans Site
St. Albans, West Virginia

Rhodes Brick & Block Company
107 Industrial Road
St. Albans, West Virginia

October 2016

Attachment I

Emission Units Table

(includes all emission units and air pollution control devices that will be part of this permit application review, regardless of permitting status)

Emission Unit ID[1]	Emission Point ID[2]	Emission Unit Description	Year Installed/ Modified	Design Capacity	Type[3] and Date of Change	Control Device[4]
BS1	E01	Cement silo	1978	37.5 ton	Modification	BH1
BH1	E02	Baghouse; Belgrade Steel Tank Co., Pulse Jet Baghouse	1978	330 sq ft	Modification	C01

[1] For Emission Units (or Sources) use the following numbering system:1S, 2S, 3S,... or other appropriate designation.
[2] For Emission Points use the following numbering system:1E, 2E, 3E, ... or other appropriate designation.
[3] New, modification, removal
[4] For Control Devices use the following numbering system: 1C, 2C, 3C,... or other appropriate designation.

ATTACHMENT J

EMISSION POINTS DATA SUMMARY SHEET

Rule 13 Permit Modification Application

St. Albans Site
St. Albans, West Virginia

Rhodes Brick & Block Company
107 Industrial Road
St. Albans, West Virginia

October 2016

Attachment J
EMISSION POINTS DATA SUMMARY SHEET

Table 1: Emissions Data

Emission Point ID No. *(Must match Emission Units Table & Plot Plan)*	Emission Point Type[1]	Emission Unit Vented Through This Point *(Must match Emission Units Table & Plot Plan)*		Air Pollution Control Device *(Must match Emission Units Table & Plot Plan)*		Vent Time for Emission Unit *(chemical processes only)*		All Regulated Pollutants - Chemical Name/CAS[3] *(Speciate VOCs & HAPS)*	Maximum Potential Uncontrolled Emissions [4]		Maximum Potential Controlled Emissions [5]		Emission Form or Phase *(At exit conditions, Solid, Liquid or Gas/Vapor)*	Est. Method Used [6]	Emission Concentration [7] (ppmv or mg/m^4)
		ID No.	Source	ID No.	Device Type	Short Term[2]	Max (hr/yr)		lb/hr	ton/yr	lb/hr	ton/yr			
E01	Vertical stack (baghouse)	BS1	Cement Silo	BH1	Baghouse	N/A	N/A	PM PM_{10}	18.2500 11.7500	3.3215 2.1385	0.0036 0.0023	0.0007 0.0004	Solid	EE	Available upon request

The EMISSION POINTS DATA SUMMARY SHEET provides a summation of emissions by emission unit. Note that uncaptured process emission unit emissions are not typically considered to be fugitive and must be accounted for on the appropriate EMISSIONS UNIT DATA SHEET and on the EMISSION POINTS DATA SUMMARY SHEET. Please note that total emissions from the source are equal to all vented emissions, all fugitive emissions, plus all other emissions (e.g. uncaptured emissions). Please complete the FUGITIVE EMISSIONS DATA SUMMARY SHEET for fugitive emission activities.

[1] Please add descriptors such as upward vertical stack, downward vertical stack, horizontal stack, relief vent, rain cap, etc.

[2] Indicate by "C" if venting is continuous. Otherwise, specify the average short-term venting rate with units, for intermittent venting (ie., 15 min/hr). Indicate as many rates as needed to clarify frequency of venting (e.g., 5 min/day, 2 days/wk).

[3] List all regulated air pollutants. Speciate VOCs, including all HAPs. Follow chemical name with Chemical Abstracts Service (CAS) number. **LIST** Acids, CO, CS_2, VOCs, H_2S, Inorganics, Lead, Organics, O_3, NO, NO_2, SO_2, SO_3, all applicable Greenhouse Gases (including CO_2 and methane), etc. **DO NOT LIST** H_2, H_2O, N_2, O_2, and Noble Gases.

[4] Give maximum potential emission rate with no control equipment operating. If emissions occur for less than 1 hr, then record emissions per batch in minutes (e.g. 5 lb VOC/20 minute batch).

[5] Give maximum potential emission rate with proposed control equipment operating. If emissions occur for less than 1 hr, then record emissions per batch in minutes (e.g. 5 lb VOC/20 minute batch).

[6] Indicate method used to determine emission rate as follows: MB = material balance; ST = stack test (give date of test); EE = engineering estimate; O = other (specify).

[7] Provide for all pollutant emissions. Typically, the units of parts per million by volume (ppmv) are used. If the emission is a mineral acid (sulfuric, nitric, hydrochloric or phosphoric) use units of milligram per dry cubic meter (mg/m^3) at standard conditions (68 °F and 29.92 inches Hg) (see 45CSR7). If the pollutant is SO_2, use units of ppmv (See 45CSR10).

Attachment J
EMISSION POINTS DATA SUMMARY SHEET

Table 2: Release Parameter Data								
Emission Point ID No. *(Must match Emission Units Table)*	Inner Diameter (ft.)	Exit Gas			Emission Point Elevation (ft)		UTM Coordinates (km)	
		Temp. (^{0}F)	Volumetric Flow [1] (acfm) *at operating conditions*	Velocity (fps)	Ground Level *(Height above mean sea level)*	Stack Height [2] *(Release height of emissions above ground level)*	Northing	Easting
EO1	TBD	Ambient	1600	TBD	600	15	4251.883	425.039

[1] Give at operating conditions. Include inerts.
[2] Release height of emissions above ground level.

ATTACHMENT K

FUGITIVE EMISSIONS DATA SUMMARY SHEET

NOT APPLICABLE

Rule 13 Permit Modification Application

St. Albans Site
St. Albans, West Virginia

Rhodes Brick & Block Company
107 Industrial Road
St. Albans, West Virginia

October 2016

ATTACHMENT L

EMISSION UNIT DATA SHEET

Rule 13 Permit Modification Application

St. Albans Site
St. Albans, West Virginia

Rhodes Brick & Block Company
107 Industrial Road
St. Albans, West Virginia

October 2016

Attachment L
Emission Unit Data Sheet
(NONMETALLIC MINERALS PROCESSING)

Control Device ID No. (must match List Form): BH1

Equipment Information

1. Plant Type:
   - ☐ Hot-mix asphalt facility that reduces the size of nonmetallic minerals embedded in recycled asphalt pavement
   - ☐ Plant without crushers or grinding mills and containing a stand-alone screening operation
   - ☐ Sand and gravel plant ☐ Common clay plant
   - ☐ Crushed stone plant ☐ Pumice plant
   - ☒ Other, specify Cement silo/storage bin

2. Plant Style: ☒ Fixed Plant ☐ Portable Plant

3. Plant Capacity: 37.5 (25 permitted) tons/hr

4. Underground mine: ☐ Yes ☒ No

5. Storage: ☐ Open ☒ Enclosed

6.

Emission Facility Type	Equipment Type Used	ID Number of Emission Unit	Manufacturer	Model Number/ Serial Number	Date of Manufacture
Conveyors					
Crusher					
Secondary Crushers					
Tertiary Crushers					
Grinder					
Hoppers					
Rock Drills					
Screens					
Enclosed Storage	Cement silo	BS1	TBD	TBD	TBD
Other					
Other					
Other					

Emission Facility Type	Operation Rate Design Ton/hr	Operation Rate Design Ton/hr	Annual Production Tons/year	Number of Units	Air Pollution Control Device Used
Conveyors					
Crusher					
Secondary Crushers					
Tertiary Crushers					
Grinder					
Hoppers					
Rock Drills					
Screens					
Enclosed Storage	25	--	219,000	1	Baghouse
Other					
Other					
Other					

7. Provide a diagram and/or schematic that shows the proposed process of the operation or plant. The diagram and/or schematic is to show all sources, components and facets of the operation or plant in an understandable line sequence of the operation. The diagram should include all the equipment involved in the operation; such as conveyors, transfer points, stockpiles, crushers, facilities, vents, screens, truck dump bins, truck, barge and railcar loading and unloading, etc. Appropriate sizing and specifications of equipment should be included in the diagram. The diagram shall logical follow the entire process load-in to load-out.

8. Roads

	Paved Miles of Road	**Unpaved Miles of Road**	**Watered**		**Other Control (Specify)**
			Miles	**Frequency**	
Plant Yard	N/A - no changes proposed				
Access Roads					

9. Vehicle Type

Vehicle Type	**Mean Vehicle Speed in mph**	**Mean Vehicle Weight in Tons**		**Number of Wheels**	**Distance Traveled per Round Trip**	
		Empty	**Full**		**Paved** Feet or Miles	**Unpaved** Feet or Miles
Raw Aggregate	N/A - no changes					
Loaders						
Product Trucks						
Other						
Other						
Other						
Other						

10. Describe all proposed materials storage facilities associated with the **Emission Units** listed.

As part of the proposed project, a new cement silo and pulse jet baghouse will be installed.

Storage Activity

ID of Emission Unit	BS1				
Type Storage	B - Bin or Storag				
Material Stored	Cement				
Typical Moisture Content (%)	Nil				
Avg % of material passing through 200 mesh sieve	100				
Maximum Total Yearly Throughput in storage (tons)	Silo				
Maximum Stockpile Base Area (ft^2)	TBD				
Maximum Stockpile height (ft)	TBD				
Dust control method applied to storage	OTH - Other (sp				
Method of material load-in to bin or stockpile	P - Pneumatic C				
Dust control method applied during load-in	EB - Enclosed a				
Method of material load-out to bin or stockpile	P - Pneumatic C				
Dust control method applied during load-out	EB - Enclosed a				

Storagepiles	**Estimated Annual Tons**	**Turnover Rate (Ton/Month)**	**Wetted as Piled**	**Number of Sides Enclosed**	**Other Dust Control**	**Loading Method** (Loader, Conveyor) **IN/OUT**
Coarse: over 1”	NA					
Fine: 1” to ¼“						
¼” and less						
MFG. Sand						
Other, specify						

Conveying and Transfer

Describe the conveying system including transfer points associated with proposed Emission Units (crushers, etc…).

As part of the proposed project, cement will be transferred from trucks to the cement silo (BS1) via pneumatic loading.

Describe any methods of emission control to be used with these proposed conveying systems:

The cement silo (BS1) will be controled by a Pulse Jet Baghouse (BH1) with a 99.98% control efficiency.

ID of Emission Unit	Type Conveyor or Transfer Point	Material Handled [Note nominal size of material transferred (e.g. ¾" × 0)]	Material Conveying or Transfer Rate		Dust Control Measures Applied	Approximate Material Moisture Content (%)
			Max. TPH	Maximum TPY		
BS1	PS - Pneumatic System		25	219,000	EB - Enclosed and Evac	

Crushing and Screening

ID of Emission Unit						
Type Crusher or Screen						
Material Sized						
Material Sized Throughput:						
Tons/hr						
Tons/yr						
Material sized from/to						
Typical moisture content as crushed or screened (%)						
Dust control methods applied						
Stack Parameters:						
Height (ft)						
Diameter (ft)						
Volume (ACFM)						
Temp (°F)						
Maximum operating schedule:						
Hour/day						
Day/year						
Hour/year						
Approximate Percentage of Operation from:						
Jan – Mar						
April – June						
July – Sept						
Oct – Dec						
Maximum Particulate Emissions:						
LB/HR						
Ton/Year						

List emission sources with request information:

ID of Emission Unit	Type of Emission Unit and Use	Operating Schedule		Max. Amount of Stone Input to Emission (lb/hr)	Crushed or Screened From/To (size)	Date of Emission Unit was Manufacture
		Actual (hrs/yr)	Design (hrs/yr)			

List emission sources with request information:

ID of Emission Unit	Maximum expected emissions from Emission Unit without Air Pollution Control Equipment				
	PM_{10} (lbs/hr)	SO_2 (lbs/hr)	CO (lbs/hr)	NO_x (lbs/hr)	VOC (lbs/hr)

ID of Emission Unit	Maximum expected emissions from Emission Unit without Air Pollution Control Equipment				
	PM_{10} (tons/yr)	SO_2 (tons/yr)	CO (tons/yr)	NO_x (tons/yr)	VOC (tons/yr)

Please fill out a separate Air Pollution Control Device Sheet for each Emission Unit equipped with an air pollution control system.

What type of stone will be quarried at this site?

How will it be quarried?

- ☐ Sawing
- ☐ Blasting
- ☐ Other, Specify:

If blasting is checked, complete the following:

- ☐ Frequency of blasting:
- ☐ What method of air pollution control will be employed during drilling and blasting?

ATTACHMENT M

AIR POLLUTION CONTROL DEVICE SHEET

Rule 13 Permit Modification Application

St. Albans Site
St. Albans, West Virginia

Rhodes Brick & Block Company
107 Industrial Road
St. Albans, West Virginia

October 2016

Attachment M
Air Pollution Control Device Sheet
(BAGHOUSE)

Control Device ID No. (must match Emission Units Table): BH1

Equipment Information and Filter Characteristics

1. Manufacturer: Belgrade Steel Tank Co.
   Model No. TBD
2. Total number of compartments: 6
3. Number of compartment online for normal operation: 6
4. Provide diagram(s) of unit describing capture system with duct arrangement and size of duct, air volume, capacity, horsepower of movers. If applicable, state hood face velocity and hood collection efficiency.
5. Baghouse Configuration: (check one)
   - ☐ Open Pressure
   - ☒ Closed Pressure
   - ☐ Closed Suction
   - ☐ Electrostatically Enhanced Fabric
   - ☐ Other, Specify
6. Filter Fabric Bag Material:
   - ☐ Nomex nylon
   - ☐ Wool
   - ☒ Polyester
   - ☐ Polypropylene
   - ☐ Acrylics
   - ☐ Ceramics
   - ☐ Fiber Glass
   - ☐ Cotton Weight oz./sq.yd
   - ☐ Teflon Thickness in
   - ☐ Others, specify
7. Bag Dimension:
   Diameter 10 in.
   Length 26 ft.
8. Total cloth area: 330 ft^2
9. Number of bags: 6
10. Operating air to cloth ratio: 4.8 ft/min
11. Baghouse Operation: ☒ Continuous ☐ Automatic ☐ Intermittent
12. Method used to clean bags:
    - ☐ Mechanical Shaker
    - ☐ Pneumatic Shaker
    - ☐ Bag Collapse
    - ☐ Manual Cleaning
    - ☐ Sonic Cleaning
    - ☐ Reverse Air Flow
    - ☒ Pulse Jet
    - ☐ Reverse Jet
    - ☐ Reverse Air Jet
    - ☐ Other:
13. Cleaning initiated by:
    - ☒ Timer
    - ☐ Expected pressure drop range in. of water
    - ☐ Frequency if timer actuated
    - ☐ Other
14. Operation Hours: Max. per day: 24 Max. per yr: 8,760
15. Collection efficiency: Rating: 99.98 % Guaranteed minimum: 99.98 %

Gas Stream Characteristics

16. Gas flow rate into the collector: 1,600 ACFM at Ambient °F and < 388 PSIA
    ACFM: Design: < 388 PSIA Maximum: TBD PSIA Average Expected: < 388 PSIA
17. Water Vapor Content of Effluent Stream: Ambient lb. Water/lb. Dry Air
18. Gas Stream Temperature: Ambient °F
19. Fan Requirements: N/A hp
    OR N/A ft^3/min
20. Stabilized static pressure loss across baghouse. Pressure Drop: High 6 in. H_2O
    Low 6 in. H_2O
21. Particulate Loading: Inlet: N/A grain/scf Outlet: 0.0015 grain/scf

22. Type of Pollutant(s) to be collected (if particulate give specific type): PM_{10} and $PM_{2.5}$

23. Is there any SO_3 in the emission stream? ☒ No ☐ Yes SO_3 content: ppmv

24. Emission rate of pollutant (specify) into and out of collector at maximum design operating conditions:

	IN		OUT	
Pollutant	**lb/hr**	**grains/acf**	**lb/hr**	**grains/acf**
PM_{10}	N/A	N/A	0.023	0.0015 gr/scf
$PM_{2.5}$	N/A	N/A	0.023	0.0015 gr/scf

25. Complete the table:

	Particle Size Distribution at Inlet to Collector	**Fraction Efficiency of Collector**
Particulate Size Range (microns)	**Weight % for Size Range**	**Weight % for Size Range**
0.0 – 0.5	0%	99.98%
0.5 – 1.0	3%	0.02%
1.0 – 5.0	17%	0.00%
5.0 – 10.0	18%	0.00%
10.0 – 20.0	21%	0.00%
> 20.0	41%	0.00%

26. How is filter monitored for indications of deterioration (e.g., broken bags)?
- ☐ Continuous Opacity
- ☒ Pressure Drop
- ☐ Alarms-Audible to Process Operator
- ☐ Visual opacity readings, Frequency:
- ☐ Other, specify:

27. Describe any recording device and frequency of log entries:
None.

28. Describe any filter seeding being performed:
None.

29. Describe any air pollution control device inlet and outlet gas conditioning processes (e.g., gas cooling, gas reheating, gas humidification):
None.

30. Describe the collection material disposal system:
Material collected in the baghouse is returned back to the cement silo.

31. Have you included ***Baghouse Control Device*** in the Emissions Points Data Summary Sheet? Yes

32. **Proposed Monitoring, Recordkeeping, Reporting, and Testing**
Please propose monitoring, recordkeeping, and reporting in order to demonstrate compliance with the proposed operating parameters. Please propose testing in order to demonstrate compliance with the proposed emissions limits.

MONITORING: See Attachment O	RECORDKEEPING: See Attachment O
REPORTING: See Attachment O	TESTING: See Attachment O

MONITORING:	Please list and describe the process parameters and ranges that are proposed to be monitored in order to demonstrate compliance with the operation of this process equipment or air control device.
RECORDKEEPING:	Please describe the proposed recordkeeping that will accompany the monitoring.
REPORTING:	Please describe any proposed emissions testing for this process equipment on air pollution control device.
TESTING:	Please describe any proposed emissions testing for this process equipment on air pollution control device.

33. Manufacturer's Guaranteed Capture Efficiency for each air pollutant.
Particulate matter (PM) – 100%

34. Manufacturer's Guaranteed Control Efficiency for each air pollutant.
Particulate matter (PM) – 99.98%

35. Describe all operating ranges and maintenance procedures required by Manufacturer to maintain warranty.
TBD

ATTACHMENT N

SUPPORTING EMISSIONS CALCULATIONS

Rule 13 Permit Modification Application

St. Albans Site
St. Albans, West Virginia

Rhodes Brick & Block Company
107 Industrial Road
St. Albans, West Virginia

October 2016

EMISSIONS SUMMARY

Name of applicant: Rhodes Brick & Block Company
Name of plant: St. Albans Site

There will not be an increase in emissions as part of the proposed modification. However, potential-to-emit (PTE) calculations were not previously completed for the existing air permit for the facility or the existing cement silo and baghouse. The caculations provided below are not emissions increases but are the PTE calculations for the proposed new equipment.

Particulate Matter or PM

	Uncontrolled PM		Controlled PM	
	lb/hr	TPY	lb/hr	TPY
POINT SOURCE EMISSIONS				
Cement Silo Emissions	18.2500	3.3215	0.0036	0.00066
Point Source Emissions Total	18.2500	3.3215	0.0036	0.00066
Facility Emissions Total	18.2500	3.3215	0.0036	0.00066

Particulate Matter under 10 microns, or PM_{10}

	Uncontrolled PM-10		Controlled PM-10	
	lb/hr	TPY	lb/hr	TPY
POINT SOURCE EMISSIONS				
Cement Silo Emissions	11.7500	2.1385	0.0023	0.00043
Point Source Emissions Total	11.7500	2.1385	0.0023	0.00043
Facility Emissions Total	11.7500	2.1385	0.0023	0.00043

INPUTS

Include all information for each emission source and transfer point as listed in the permit application.

Name of applicant: **Rhodes Brick & Block Company**
Name of plant: **St. Albans Site**

Allowable Yearly

Truck Weight

35,000	lbs/load	empty
85,000	lbs/load	max
50,000.0	lbs/load	mean weight
25.0	tons/load	mean weight

1. PNEUMATIC FILLING OF STORAGE BINS

Transfer Point	Description	Worst Case Input per Hour (tons)*	Worst Case Input per Year (total tons)	Control Device ID Number	Control Efficiency %
T1	Filling Cement Silo (BS1)	25	9,100	BH	99.98

*Based off of Facility Max Processing Rate, Cement Feedstock is limited to 1 truck per day (25/Tons)

1. Emissions From PNEUMATIC BIN LOADING

	PM				PM-10			
	Uncontrolled		Controlled		Uncontrolled		Controlled	
EMISSION SOURCE	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
Filling Cement Silo (BS1)	18.2500	3.3215	0.0036	0.0007	11.7500	2.1385	0.0023	0.0004
TOTAL	18.2500	3.3215	0.0036	0.0007	11.7500	2.1385	0.0023	0.0004

Source:
AP-42 Table 11.12-2, unloading to elevated cement silo (pneumatic).

EMISSION FACTORS

PM	0.7300	lb/ton (maximum input)
PM-10	0.4700	lb/ton (maximum input)

ATTACHMENT O

MONITORING/RECORDKEEPING/REPORTING/ TESTING PLANS

Rule 13 Permit Modification Application

St. Albans Site
St. Albans, West Virginia

Rhodes Brick & Block Company
107 Industrial Road
St. Albans, West Virginia

October 2016

MONITORING, RECORDKEEPING, REPORTING, TESTING PLANS

Monitoring

Rhodes Brick & Block Company (Rhodes) will monitor hours of operation, raw material (cement) throughput, and pressure drop of the baghouse (BH1).

Recordkeeping

Rhodes will retain records certified by a company official for five (5) years, two (2) years on site, at such time that the West Virginia Department of Protection Division of Air Quality may request said records.

Reporting

Rhodes will comply with the reporting requirements detailed in the operating permit.

Testing

Testing is not anticipated to be required.

ATTACHMENT P

PUBLIC NOTICE

Rule 13 Permit Modification Application

St. Albans Site
St. Albans, West Virginia

Rhodes Brick & Block Company
107 Industrial Road
St. Albans, West Virginia

October 2016

AIR QUALITY PERMIT NOTICE
Notice of Application

Notice is given that Rhodes Brick & Block Company has applied to the West Virginia Department of Environmental Protection, Division of Air Quality, for a Modification Permit for a cement silo and baghouse located on Industrial Road, in St. Albans, in Kanawha County, West Virginia. The latitude and longitude coordinates are: 38.41202, -81.85863.

The applicant estimates the increased potential to discharge the following Regulated Air Pollutants will be:

Pollutant	Tons/Yr
PM	0
PM_{10}	0

Startup of operation is planned to begin on or about the 12th day of January, 2017. Written comments will be received by the West Virginia Department of Environmental Protection, Division of Air Quality, 601 57th Street, SE, Charleston, WV 25304, for at least 30 calendar days from the date of publication of this notice.

Any questions regarding this permit application should be directed to the DAQ at (304) 926-0499, extension 1250, during normal business hours.
Dated this the (Day) day of October, 2016.

By: Rhodes Brick & Block Company
Rick Rhodes
Vice President
107 Industrial Road
St. Albans, West Virginia 25177

ATTACHMENT Q

BUSINESS CONFIDENTIAL CLAIMS

NOT APPLICABLE

Rule 13 Permit Modification Application

St. Albans Site
St. Albans, West Virginia

Rhodes Brick & Block Company
107 Industrial Road
St. Albans, West Virginia

October 2016

ATTACHMENT R

AUTHORITY FORMS

NOT APPLICABLE

Rule 13 Permit Modification Application

St. Albans Site
St. Albans, West Virginia

Rhodes Brick & Block Company
107 Industrial Road
St. Albans, West Virginia

October 2016

ATTACHMENT S

TITLE V PERMIT REVISION INFORMATION

NOT APPLICABLE

Rule 13 Permit Modification Application

St. Albans Site
St. Albans, West Virginia

Rhodes Brick & Block Company
107 Industrial Road
St. Albans, West Virginia

October 2016

APPLICATION FEE

Rule 13 Permit Modification Application

St. Albans Site
St. Albans, West Virginia

Rhodes Brick & Block Company
107 Industrial Road
St. Albans, West Virginia

October 2016

Check Number: 12028 Vendor Code: DEPAIRQUAL
Check Date: 10/14/2016 Company: WVDEP- Division of Air Quality
Check Amount: $1,000.00
Account #:

Inv. Number	Date	Balance	Applied	Discount
2016SiloAppFee	10/14/2016	$1,000.00	$1,000.00	$0.00

55-0536067

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12028

RHODES BRICK & BLOCK CO. 3/10
107 INDUSTRIAL ROAD
ST. ALBANS, WV 25177

PUTNAM COUNTY BANK
HURRICANE WEST VIRGINIA 25526
Hurricane, WV

69-283/513 Control# 12028

One Thousand Dollars And No Cents

DATE 10/14/2016
AMOUNT $1,000.00

PAY
TO THE
ORDER
OF

WVDEP- Division of Air Quality
P O Box 40420
(TRES/RPD)
Charleston, WV 25364

Sharon Rhodes
AUTHORIZED SIGNATURE

SAFEGUARD SECURE

Details on back.
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