



WEST VIRGINIA
 DEPARTMENT OF ENVIRONMENTAL PROTECTION
 DIVISION OF AIR QUALITY
 601 57th Street, SE
 Charleston, WV 25304
 Phone: (304) 926-0475 * www.dep.wv.gov/daq

APPLICATION FOR GENERAL PERMIT REGISTRATION
 CONSTRUCT, MODIFY, RELOCATE OR ADMINISTRATIVELY UPDATE
 A STATIONARY SOURCE OF AIR POLLUTANTS

- CONSTRUCTION MODIFICATION RELOCATION CLASS I ADMINISTRATIVE UPDATE
 CLASS II ADMINISTRATIVE UPDATE

CHECK WHICH TYPE OF GENERAL PERMIT REGISTRATION YOU ARE APPLYING FOR:

- | | |
|--|---|
| <input type="checkbox"/> G10-D – Coal Preparation and Handling
<input type="checkbox"/> G20-B – Hot Mix Asphalt
<input type="checkbox"/> G30-D – Natural Gas Compressor Stations
<input type="checkbox"/> G33-A – Spark Ignition Internal Combustion Engines
<input type="checkbox"/> G35-A – Natural Gas Compressor Stations (Flare/Glycol Dehydration Unit) | <input checked="" type="checkbox"/> G40-C – Nonmetallic Minerals Processing
<input type="checkbox"/> G50-B – Concrete Batch
<input type="checkbox"/> G60-C - Class II Emergency Generator
<input type="checkbox"/> G65-C – Class I Emergency Generator
<input type="checkbox"/> G70-A – Class II Oil and Natural Gas Production Facility |
|--|---|

SECTION I. GENERAL INFORMATION

1. Name of applicant (as registered with the WV Secretary of State's Office): Kanawha Stone Company		2. Federal Employer ID No. (FEIN): 55-0535003	
3. Applicant's mailing address: 409 Jacobson Drive Poca, WV 25159		4. Applicant's physical address: 409 Jacobson Drive Poca, WV 25159	
5. If applicant is a subsidiary corporation, please provide the name of parent corporation: N/A			
6. WV BUSINESS REGISTRATION. Is the applicant a resident of the State of West Virginia? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> 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 . <input type="checkbox"/> IF NO , provide a copy of the Certificate of Authority / Authority of LLC / Registration (one page) including any name change amendments or other Business Certificate as Attachment A .			

SECTION II. FACILITY INFORMATION

7. Type of plant or facility (stationary source) to be constructed, modified, relocated or administratively updated (e.g., coal preparation plant, primary crusher, etc.): Rock Crushing -- Mobile	8a. Standard Industrial Classification Classification (SIC) code: 1629	AND	8b. North American Industry System (NAICS) code: 23799
9. DAQ Plant ID No. (for existing facilities only): N/A	10. List all current 45CSR13 and other General Permit numbers associated with this process (for existing facilities only): N/A		

A: PRIMARY OPERATING SITE INFORMATION

11A. Facility name of primary operating site: <u>Sandstrom Treatment Facility</u> _____ _____	12A. Address of primary operating site: Mailing: _____ Physical: _____ <u>Intersection of Rt. 50/30 and 50/38</u> _____	
13A. Does the applicant own, lease, have an option to buy, or otherwise have control of the proposed site? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO ⇨ IF YES, please explain: <u>Contracted for site construction work</u> _____ _____ ⇨ IF NO, YOU ARE NOT ELIGIBLE FOR A PERMIT FOR THIS SOURCE.		
14A. ⇨ For Modifications or Administrative Updates 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 F . <u>N/A</u> _____ _____		
15A. Nearest city or town: <u>Greenwood</u>	16A. County: <u>Doddridge</u>	17A. UTM Coordinates: Northing (KM): <u>4346.7</u> Easting (KM): <u>509.2</u> Zone: <u>17</u>
18A. Briefly describe the proposed new operation or change (s) to the facility: <u>N/A</u>		19A. Latitude & Longitude Coordinates (NAD83, Decimal Degrees to 5 digits): Latitude: <u>39.26982</u> Longitude: <u>-80.89233</u>

B: 1ST ALTERNATE OPERATING SITE INFORMATION (only available for G20, G40, & G50 General Permits)

11B. Name of 1 st alternate operating site: <u>N/A</u> _____ _____	12B. Address of 1 st alternate operating site: Mailing: _____ Physical: _____ _____
13B. Does the applicant own, lease, have an option to buy, or otherwise have control of the proposed site? <input type="checkbox"/> YES <input type="checkbox"/> NO ⇨ IF YES, please explain: _____ _____ ⇨ IF NO, YOU ARE NOT ELIGIBLE FOR A PERMIT FOR THIS SOURCE.	

14B. ⇨ For Modifications or Administrative Updates 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 F . N/A <hr/> <hr/>		
15B. Nearest city or town:	16B. County:	17B. UTM Coordinates: Northing (KM): _____ Easting (KM): _____ Zone: _____
18B. Briefly describe the proposed new operation or change (s) to the facility:		19B. Latitude & Longitude Coordinates (NAD83, Decimal Degrees to 5 digits): Latitude: _____ Longitude: _____

C: 2ND ALTERNATE OPERATING SITE INFORMATION (only available for G20, G40, & G50 General Permits):

11C. Name of 2 nd alternate operating site: N/A	12C. Address of 2 nd alternate operating site: Mailing: _____ Physical: _____	
13C. Does the applicant own, lease, have an option to buy, or otherwise have control of the proposed site? <input type="checkbox"/> YES <input type="checkbox"/> NO ⇨ IF YES, please explain: _____ _____ ⇨ IF NO, YOU ARE NOT ELIGIBLE FOR A PERMIT FOR THIS SOURCE.		
14C. ⇨ For Modifications or Administrative Updates 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 F . <hr/> <hr/>		
15C. Nearest city or town:	16C. County:	17C. UTM Coordinates: Northing (KM): _____ Easting (KM): _____ Zone: _____
18C. Briefly describe the proposed new operation or change (s) to the facility:		19C. Latitude & Longitude Coordinates (NAD83, Decimal Degrees to 5 digits): Latitude: _____ Longitude: _____

<p>20. Provide the date of anticipated installation or change:</p> <p><u>11 / 01 / 15</u></p> <p><input type="checkbox"/> If this is an After-The-Fact permit application, provide the date upon which the proposed change did happen: :</p> <p><u> / / </u></p>	<p>21. Date of anticipated Start-up if registration is granted:</p> <p><u>11 / 01 / 15</u></p>
<p>22. Provide maximum projected Operating Schedule of activity/activities outlined in this application if other than 8760 hours/year. (Note: anything other than 24/7/52 may result in a restriction to the facility's operation).</p> <p>Hours per day <u>24</u> Days per week <u>7</u> Weeks per year <u>52</u> Percentage of operation <u>100</u></p>	

SECTION III. ATTACHMENTS AND SUPPORTING DOCUMENTS

<p>23. Include a check payable to WVDEP – Division of Air Quality with the appropriate application fee (per 45CSR22 and 45CSR13).</p>
<p>24. Include a Table of Contents as the first page of your application package.</p>
<p>All of the required forms and additional information can be found under the Permitting Section (General Permits) of DAQ's website, or requested by phone.</p>
<p>25. Please check all attachments included with this permit application. Please refer to the appropriate reference document for an explanation of the attachments listed below.</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> ATTACHMENT A : CURRENT BUSINESS CERTIFICATE <input checked="" type="checkbox"/> ATTACHMENT B: PROCESS DESCRIPTION <input checked="" type="checkbox"/> ATTACHMENT C: DESCRIPTION OF FUGITIVE EMISSIONS <input checked="" type="checkbox"/> ATTACHMENT D: PROCESS FLOW DIAGRAM <input checked="" type="checkbox"/> ATTACHMENT E: PLOT PLAN <input checked="" type="checkbox"/> ATTACHMENT F: AREA MAP <input checked="" type="checkbox"/> ATTACHMENT G: EQUIPMENT DATA SHEETS AND REGISTRATION SECTION APPLICABILITY FORM <input checked="" type="checkbox"/> ATTACHMENT H: AIR POLLUTION CONTROL DEVICE SHEETS <input checked="" type="checkbox"/> ATTACHMENT I: EMISSIONS CALCULATIONS <input checked="" type="checkbox"/> ATTACHMENT J: CLASS I LEGAL ADVERTISEMENT <input checked="" type="checkbox"/> ATTACHMENT K: ELECTRONIC SUBMITTAL <input checked="" type="checkbox"/> ATTACHMENT L: GENERAL PERMIT REGISTRATION APPLICATION FEE <input checked="" type="checkbox"/> ATTACHMENT M: SITING CRITERIA WAIVER <input checked="" type="checkbox"/> ATTACHMENT N: MATERIAL SAFETY DATA SHEETS (MSDS) <input checked="" type="checkbox"/> ATTACHMENT O: EMISSIONS SUMMARY SHEETS <input type="checkbox"/> OTHER SUPPORTING DOCUMENTATION NOT DESCRIBED ABOVE (Equipment Drawings, Aggregation Discussion, etc.) <p>Please mail an original and two copies of the complete General Permit Registration Application with the signature(s) to the DAQ Permitting Section, at the address shown on the front page of this application. Please DO NOT fax permit applications. For questions regarding applications or West Virginia Air Pollution Rules and Regulations, please refer to the website shown on the front page of the application or call the phone number also provided on the front page of the application.</p>

SECTION IV. CERTIFICATION OF INFORMATION

This General Permit Registration Application shall be signed below by a Responsible Official. A Responsible Official is a President, Vice President, Secretary, Treasurer, General Partner, General Manager, a member of a Board of Directors, or Owner, depending on business structure. A business may certify an Authorized Representative who shall have authority to bind the Corporation, Partnership, Limited Liability Company, Association, Joint Venture or Sole Proprietorship. Required records of daily throughput, hours of operation and maintenance, general correspondence, Emission Inventory, Certified Emission Statement, compliance certifications and all required notifications must be signed by a Responsible Official or an Authorized Representative. If a business wishes to certify an Authorized Representative, the official agreement below shall be checked off and the appropriate names and signatures entered. Any administratively incomplete or improperly signed or unsigned Registration Application will be returned to the applicant.

FOR A CORPORATION (domestic or foreign)

I certify that I am a President, Vice President, Secretary, Treasurer or in charge of a principal business function of the corporation

FOR A PARTNERSHIP

I certify that I am a General Partner

FOR A LIMITED LIABILITY COMPANY

I certify that I am a General Partner or General Manager

FOR AN ASSOCIATION

I certify that I am the President or a member of the Board of Directors

FOR A JOINT VENTURE

I certify that I am the President, General Partner or General Manager

FOR A SOLE PROPRIETORSHIP

I certify that I am the Owner and Proprietor

I hereby certify that (please print or type) Ashley L. Lioi is an Authorized Representative and in that capacity shall represent the interest of the business (e.g., Corporation, Partnership, Limited Liability Company, Association Joint Venture or Sole Proprietorship) and may obligate and legally bind the business. If the business changes its Authorized Representative, a Responsible Official shall notify the Director of the Office of Air Quality immediately, and/or,

I hereby certify that all information contained in this General Permit Registration Application and any supporting documents appended hereto is, to the best of my knowledge, true, accurate and complete, and that all reasonable efforts have been made to provide the most comprehensive information possible

Signature Ashley L. Lioi Date 9/23/2015
(please use blue ink) Responsible Official

Name & Title Ashley L. Lioi - Principal Engineer/Shareholder
(please print or type)

Signature Ashley L. Lioi Date 9/23/2015
(please use blue ink) Authorized Representative (if applicable)

Applicant's Name Kanawha Stone Company

Phone & Fax Phone (304) 75508271 Fax - (304) 755-8274
Phone Fax

Email ashleylioik@kanawhastone.com

ATTACHMENT A:
CURRENT BUSINESS CERTIFICATE

**WEST VIRGINIA
STATE TAX DEPARTMENT
BUSINESS REGISTRATION
CERTIFICATE**

ISSUED TO:
**KANAWHA STONE CO INC
PO BOX 503
NITRO, WV 25143-0503**

BUSINESS REGISTRATION ACCOUNT NUMBER: 1035-8859

This certificate is issued on: **09/13/2010**

*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.

CONTRACTOR LICENSE

Authorized by the

West Virginia Contractor Licensing Board

Number: WV006094

Classification:

GENERAL BUILDING
GENERAL ENGINEERING

KANAWHA STONE COMPANY INC
DBA KANAWHA STONE COMPANY INC
PO BOX 503
NITRO, WV 25143-0503

Date Issued


SEPTEMBER 24, 2015

Expiration Date

SEPTEMBER 24, 2016



Authorized Company Signature



Chair, West Virginia Contractor
Licensing Board

**WEST VIRGINIA
CONTRACTOR
LICENSING
BOARD**

This license, or a copy thereof, must be posted in a conspicuous place at every construction site where work is being performed. This license number must appear in all advertisements, on all bid submissions and on all fully executed and binding contracts. This license cannot be assigned or transferred by licensee. Issued under provisions of West Virginia Code, Chapter 21, Article 11.

ATTACHMENT B:
PROCESS DESCRIPTION

PROCESS DESCRIPTION FOR KANAWHA STONE COMPANY'S CRUSHERS

Two Terex Finlay J-1160 crushers will be used for this project (Spec. Sheet attached). The process description for the project is as follows:

Shot rock is pushed to the shot rock pile (OS-1 and TP-1). An excavator (TP-2) transfers the shot rock to the jaw crushers (C-001 or C-002). The crushed rock is dumped from the crusher to the crushed product stockpile (TP-3 and TP-4). The crushed product is taken from the stockpile by an excavator and transferred to trucks for transportation to the final use site (TP-5 and TP-6).

ATTACHMENT C:
DESCRIPTION OF FUGITIVE EMISSIONS

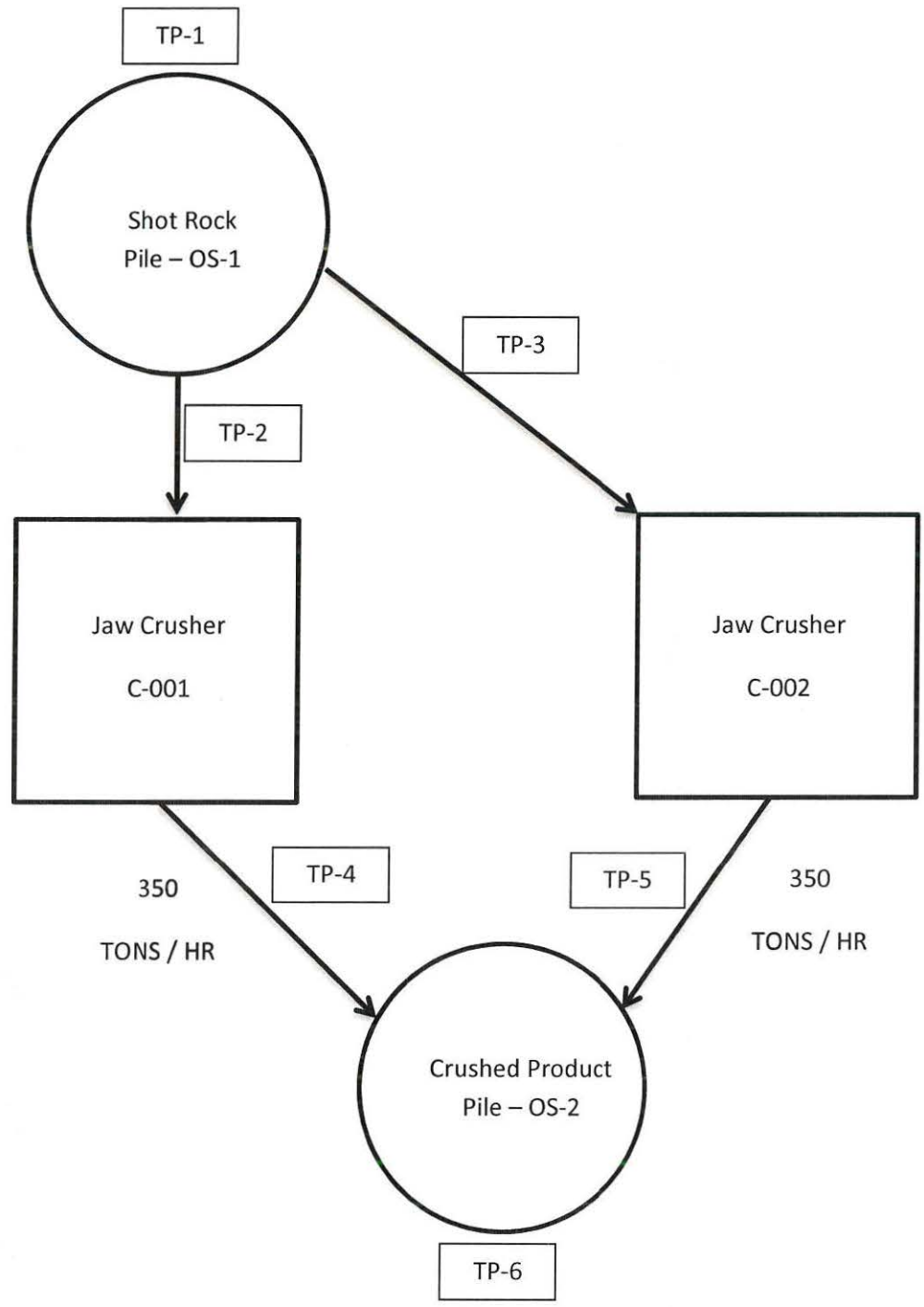
FUGITIVE EMISSIONS FOR KANAWHA STONE COMPANY'S CRUSHERS

Fugitive emissions points for the crusher are the unpaved haulroads and stockpiles. A water truck will be utilized to pump and spray water on haul roads and stockpiles. Water will be utilized for dust control. The water truck will be kept in a warm area when not in use. A water truck will be utilized for dust control along the haul road.

The haul roads and stockpiles will be sprayed on an as-needed basis to minimize dust. There are not any plans for the utilization of chemical suppressants. The haul road is coarse stone.

A water spray system will be installed at all the transfer points, conveyors, etc to minimize dust.

ATTACHMENT D:
PROCESS FLOW DIAGRAM



TERRADON CORPORATION
 P.O. Box 519
 Nitro, West Virginia 25143
 (304) 755-8291 FAX (304) 755-2636

Project
 KANAWHA STONE COMPANY, INC.
 PROCESS DIAGRAM
 CRUSHING UNIT

Scale
 NO SCALE

Date
 SEPTEMBER 2015

Dwg. No.

FIG. 3

ATTACHMENT E:
PLOT PLANS



TERRADON CORPORATION
 P.O. Box 519
 Nitro, West Virginia 25143
 (304) 755-8291 FAX (304) 755-2636

Project

KANAWHA STONE COMPANY, INC.
 Mobile Rock Crusher
 Deployment on Site

Scale

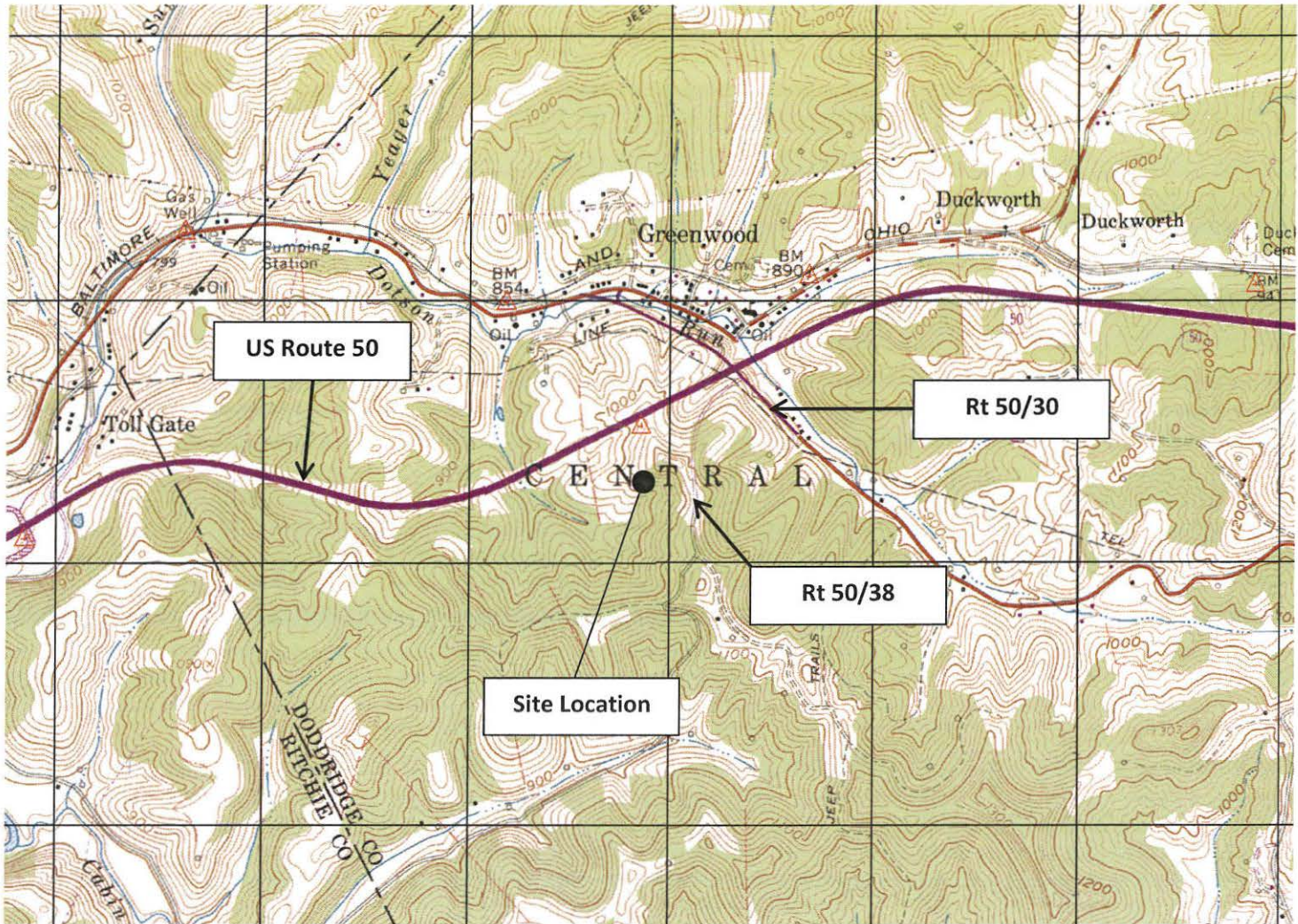
NO SCALE

Dwg. No.

Date

SEPTEMBER 2015

ATTACHMENT F:
AREA MAPS



TERRADON
CORPORATION

TERRADON CORPORATION

P.O. Box 519

Nitro, West Virginia 25143

(304) 755-8291 FAX (304) 755-2636

Project

KANAWHA STONE COMPANY, INC.
Sandstrom Treatment Facility Project
Site Location Map

Scale

NO SCALE

Date

SEPTEMBER 2015

Dwg. No.

Base Map: USGS Topo
Pennsboro, WV Quad.

ATTACHMENT G:
AFFECTED SOURCE SHEETS

CRUSHING AND SCREENING AFFECTED SOURCE SHEET

Source Identification Number ¹		CR-1	CR-2			
Type of Crusher or Screen ²		JC	JC			
Make, Model No., Serial No. ³		Terex Finlay J-1160	Terex Finlay J-1160			
Date of Construction, Reconstruction, or Modification (Month/Year) ⁴						
Maximum Throughput ⁵	tons/hour	350	350			
	tons/year	3,066,000	3,066,000			
Material sized from/to: ⁶		2'/6"	2'/6"			
Average Moisture Content (%) ⁷		10%	10%			
Control Device ID Number ⁸		TCWS-1	TCWS-2			
Baghouse Stack Parameters ⁹	height (ft)	N/A	N/A			
	diameter (ft)					
	volume (ACFM)					
	exit temp (F)					
	UTM Coordinates					
Maximum Operating Schedule ¹⁰	hours/day	24	24			
	days/year	365	365			
	hours/year	8,760	8,760			

1. Enter the appropriate Source Identification Number for each crusher and screen. For example, in the case of an operation which incorporates multiple crushers, the crushers should be designated CR-1, CR-2, CR-3 etc. beginning with the breaker or primary crusher. Multiple screens should be designated S-1, S-2, S-3 etc.
2. Describe types of crushers and screens using the following codes:

HM	Hammermill	SS	Stationary Screen	DR	Double Roll Crusher
SD	Single Deck Screen	BM	Ball Mill	DD	Double-Deck Screen
RB	Rotary Breaker	TD	Triple Deck Screen	JC	Jaw Crusher
GC	Gyratory Crusher	OT	Other		
3. Enter the make, model number, and serial number of the crusher/screen.
4. Enter the date that each crusher and screen was constructed, reconstructed, or modified.
5. Enter the maximum throughput for each crusher and screen in tons per hour and tons per year.
6. Describe the nominal material size reduction (e.g. +2" / -3/8").
7. Enter the average percent moisture content of the material processed.
8. Enter the appropriate Control Device Identification Number for each crusher and screen. Refer to Table A - *Control Device Listing* and *Control Device Identification Number Instructions* in the *Reference Document* for Control Device ID prefixes and numbering.
9. Enter the appropriate stack parameters if a baghouse control device is used.
10. Enter the maximum operating schedule for each crusher and screen in hours per day, days per year and hours per year.

**ATTACHMENT H:
BAGHOUSE AIR POLLUTION CONTROL
DEVICE SHEET**

NOT APPLICABLE

**ATTACHMENT I:
EMISSIONS CALCULATIONS**

3. WIND EROSION OF STOCKPILES (including all stockpiles of raw coal, clean coal, coal refuse, etc.)

p =	number of days per year with precipitation >0.01 inch	157
f =	percentage of time that the unobstructed wind speed exceeds 12 mph at the mean pile height	20

Source ID No.	Stockpile Description	Silt Content of Material %	Stockpile base area Max. sqft	Control Device ID Number	Control Efficiency %
OS-1	Shot Rock Pile	10	310,000	TCWS-1	70
OS-2	Finished Stockpile	10	165,000	TCWS-2	70

4. UNPAVED HAULROADS (including all equipment traffic involved in process, haul trucks, endloaders, etc.)

s =	silt content of road surface material (%)	10
p =	number of days per year with precipitation >0.01 inch	157
M _{dry} =	surface material moisture content (%) - dry conditions	0.2

** Due to cell protection the number could not be displayed.*

Item Number	Description	Number of wheels	Mean Vehicle Weight(tons)	Mean Vehicle Speed (mph)	Miles per Trip	Maximum Trips Per Hour	Maximum Trips Per Year	Control Device ID Number	Control Efficiency %
1	Delivery of Raw Stone	4	100	10	4	5	43,800	TCWS-1	70
2	Front End Loader	4	20	10	0.5	25	219,000	TCWS-1	70
3	Shipping of Processed Stone	6	100	10	4	5	43,800	TCWS-2	70
4									
5									
6									
7									
8									

5. INDUSTRIAL PAVED HAULROADS (including all equipment traffic involved in process, haul trucks, endloaders, etc.)

sL =	road surface silt loading, (g/ft ²)	70
P =	number of days per year with precipitation >0.01 inch	157

Item Number	Description	Mean Vehicle Weight (tons)	Miles per Trip	Maximum Trips Per Hour	Maximum Trips Per Year	Control Device ID Number	Control Efficiency %
1							
2							
3							
4							
5							
6							
7							
8							

ATTACHMENT J:
CLASS I LEGAL ADVERTISEMENT

AIR QUALITY PERMIT NOTICE
Notice of Application

Notice is given that Kanawha Stone Company has applied to the West Virginia Department of Environmental Protection, Division of Air Quality, for a Relocation Permit for a rock crushing and screening operation at the following locations in Doddridge County, West Virginia:

Intersection of Rt. 50/30 and 50/38 (Sandstrom Treatment Facility location) in Greenwood, WV.

The applicant estimates the potential to discharge the following Regulated Air Pollutants will be 21 tons per year of controlled particulate matter per project.

Startup of operation is planned to begin on or about the 1st day of November 2015. 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 1227, during normal business hours.

Dated this the _____ of September 2015.

Kanawha Stone Company
By: Arthur L. King
Its: President
P. O. Box 503
Nitro, WV 25143

ATTACHMENT K:
ELECTRONIC SUBMITTAL DISKETTE

**ATTACHMENT L:
GENERAL PERMIT REGISTRATION
APPLICATION FEE**

**ATTACHMENT M:
SITTING CRITERIA WAIVER**

NOT APPLICABLE

ATTACHMENT N:
MATERIAL SAFETY DATA SHEETS (MSDS)



Safety Data Sheet

Material Name: Crushed Stone
Synonyms: Construction Aggregate

Section 1 – Product and Company Identification

Manufacturer Information

Peckham Industries Inc.
20 Haarlem Ave.
White Plains, NY 10603
Phone: 914-949-2000
www.peckham.com

Section 2 – Hazardous Identification

GHS Classification:

Acute Toxicity Oral – Category 4
Skin Corrosion/Irritation – Category 2
Eye Damage/Irritation – Category 2
Carcinogenicity – Category 1
Specific Target Organ Toxicity Repeat Exposure – Category 1

GHS LABEL ELEMENTS

Symbol(s)



Signal Word

Danger

Hazard Statements

Harmful if swallowed.
Causes skin and eye irritation.
May cause cancer.
Causes damage to organs (lungs) through prolonged or repeated exposure.

Precautionary Statements

Prevention

Wash thoroughly after handling.
Do not eat, drink or smoke when using this product.
Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Wear protective gloves/protective clothing/eye protection/face protection.
Do not breath dust.

Safety Data Sheet

Material name: Crushed Stone

Response

If swallowed: Call a poison center/doctor if you feel unwell. Rinse mouth.

If on skin: Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash it before reuse.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Storage

Store in an appropriate container or containment structure.

Disposal

Dispose of contents/container in accordance with local/regional/nation/international regulations.

Section 3 – Composition/ Information on Ingredients

CAS #	Component	Percent
Not Available	Metamorphic, Igneous, or Sedimentary Rock	97-99
14808-60-7	Quartz	>1

Component Information/ Information on Non-Hazardous Components

General Product Information

Trace Elements: These materials are mined from the earth. Trace amounts of naturally occurring elements might be detected during chemical analysis of these materials.

Section 4 – First Aid Measures

First Aid: Eyes

Immediately flush eyes thoroughly with water. Call physician if irritation persists.

First Aid: Skin

Wash skin with soap and water. Call physician if irritation persists.

First Aid: Ingestion

Do not induce vomiting. If conscious, have the victim drink plenty of water and call a physician for medical advice.

First Aid: Inhalation

Remove to fresh air. Seek medical help if coughing and other symptoms do not subside.

Section 5 – Fire Fighting Measures

General Fire Hazards

See Section 9 for Flammability Properties.

None

Hazardous Combustion Products

None

Extinguishing Media

Use appropriate extinguishing media for surrounding fire.

Unsuitable Extinguishing Media

None

Safety Data Sheet

Material Name: Crushed Stone

Fire Fighting Equipment/Instructions

Firefighters should wear full protective gear.

Section 6 – Accidental Release Measures

Recovery and Neutralization

Avoid actions that cause dust to become airborne. Avoid inhalation of dust and contact with skin. Wear appropriate personal protective equipment as described in Section 8.

Materials and Methods for Clean-Up

Vacuum cleaning is the preferred method for the dry fine materials. Avoid dry sweeping which creates dust. Apply water spray to prevent airborne dust. Scrape up wet material and place in an appropriate container.

Emergency Measures

Isolate area. Keep unnecessary personnel away.

Personal Precautions and Protective Equipment

Wear protective equipment and clothing during clean-up.

Environmental Precautions

None

Prevention of Secondary Hazards

None

Section 7 – Handling and Storage

Handling Procedures

Wash thoroughly after exposure to dust. Promptly remove dusty clothing and launder before use.

Storage Procedures

Normal temperatures and pressures do not affect the material.

Incompatibilities

None

Section 8 – Exposure Controls/ Personal Protection

Component Exposure Limits

Quartz (14808-60-7)

ACGIH:	0.025 mg/m ³ TWA (respirable fraction)
NIOSH:	0.05 mg/m ³ TWA (respirable dust)

Engineering Measures

Use local exhaust or general dilution ventilation to control exposure within applicable limits.

Personal Protective Equipment: Respiratory

Avoid actions that cause dust exposure to occur. Use local or general ventilation to control exposures below applicable exposure limits. NIOSH or MSHA approved particulate filter respirators should be used in the context of respiratory protection program meeting the requirements of the OSHA respiratory protection standard [29 CFR 1910.134] to control exposures when ventilation or other controls are inadequate or discomfort or irritation is experienced. Respirator and/or filter cartridge selection should be based on American National Standards Institute (ANSI) Standards Z88.2 Practices for Respiratory Protection.

Personal Protective Equipment: Hands

Where prolonged exposure to products might occur, wear impervious gloves to eliminate skin contact.

Safety Data Sheet

Material Name: Crushed Stone

Personal Protective Equipment: Eyes

When engaged in activities where ingredients could contact the eye, wear safety glasses with side shields or goggles. In extremely dusty environments and unpredictable environments, wear unvented or indirectly vented goggles to avoid eye irritation or injury. Contact lenses should not be worn when working with ingredients.

Personal Protective Equipment: Skin and Body

Normal work clothing (long sleeved shirts and long pants) is recommended.

Section 9 – Physical & Chemical Properties

Appearance:	Granular Mixture- Various colors	Odor:	No Distinct Odor
Physical State:	Solid	pH:	Not Applicable
Vapor Pressure:	Not Applicable	Vapor Density:	Not Applicable
Boiling Point:	Not Applicable	Melting Point:	Not Applicable
Solubility(H₂O):	Not Applicable	Specific Gravity:	2.25-2.80
Evaporation Rate:	Not Applicable	VOC:	Not Applicable
Octanol/H₂O Coeff:	Not Applicable	Flash Point:	None
Flash Point Method:	Not Applicable	Upper Flammability Limit: (UFL):	None
Lower Flammability Limit: (LFL):	None	Burning Rate:	None
Auto Ignition:	None		

Section 10 – Chemical Stability & Reactivity Information

Chemical Stability

This is a stable material.

Hazardous Reaction Potential

Will not occur.

Conditions to Avoid

Contact with powerful oxidizing agents such as fluorine, boron trifluoride, chlorine trifluoride, and oxygen difluoride may cause fire and/or explosions. Silica dissolves in hydrofluoric acid producing gas- silicon ictrafluoride.

Incompatible Products

None.

Hazardous Decomposition Products

None.

Section 11 – Toxicological Information

Acute Toxicity

Component Analysis – LD50/LC50

Quartz (14808-60-7)

Oral LD50 Rat 500 mg/kg

Potential Health Effects: Skin Corrosion Property/Stimulativeness

This product can cause abrasion and irritation to the skin.

Safety Data Sheet

Material Name: Crushed Stone

Potential Health Effects: Eye Critical Damage/Stimulativeness

Exposure to airborne dust during the handling of this product may cause immediate or delayed irritation.

Potential Health Effects: Ingestion

This product can cause gastrointestinal irritation if ingested.

Potential Health Effects: Inhalation

The ingredients in this product could contain crystalline silica. Exposure to these ingredients in excess of the applicable TLV or PEL may cause or aggravate other lung conditions. Exposure may cause irritation to the moist mucous membranes of the nose, throat, and upper respiratory system.

Respiratory Organs Sensitization/Skin Sensitization

This product is not reported to have any sensitization effects.

Generative Cell Mutagenicity

This product is not reported to have any mutagenic effects.

Carcinogenicity

A. General Product Information

May cause cancer.

Exposures to respirable crystalline silica are not expected during the normal use of this product. Prolonged and repeated exposure to airborne free respirable crystalline silica can result in lung disease and/or lung cancer. IARC states that crystalline silica in the form of quartz or cristobalite from occupational sources is carcinogenic to humans (Group 1).

B. Component Carcinogenicity

Quartz (14808-60-7)

ACGIH: A2- Suspected Human Carcinogen
NIOSH: Potential occupational carcinogen
NTP: Known Human Carcinogen (respirable size) (Select Carcinogen)
IARC: Monograph 100C [2012](listed under Crystalline silica inhaled in the form of quartz or cristobalite from occupational sources); Monograph 68 [1997] (Group 1(carcinogenic to humans)).

Reproductive Toxicity

This product is not reported to have any reproductive toxicity effects.

Specified Target Organ General Toxicity: Single Exposure

This product is not reported to have any single exposure specific target organ toxicity effects.

Specified Target Organ General Toxicity: Repeated Exposure

Causes damage to organs (lungs) through prolonged or repeated exposure.

Aspiration Respiratory Organs Hazard

This product is not reported to have any aspiration hazard effects.

Section 12 – Ecological Information

Ecotoxicity

A. General Product Information

This product is not reported to have any ecotoxicity effects. Dust can cause soiling and damage sensitive vegetation after prolonged exposure. Aggregates are classified inert and not considered to pose ecological concern.

Safety Data Sheet

Material Name: Crushed Stone

B. Component Analysis – Ecotoxicity – Aquatic Toxicity

No ecotoxicity data are available for this product's components.

Persistence/Degradability

No information available for the product.

Bioaccumulation

No information available for the product.

Mobility in Soil

No information available for this product.

Section 13 – Disposal Considerations

Waste Disposal Instructions

See Section 7 for Handling Procedures. See Section 8 for Personal Protective Equipment recommendations.

Disposal of Contaminated Containers or Packing

Dispose of contents/container in accordance with local/regional/national/international regulations.

Section 14 – Transportation Information

DOT Information

Shipping Name: Not Regulated

Additional Info: Dry fine materials best transported by bulk tanker or sealed bags. Aggregates should be sheeted or conditioned with water to minimize dust.

Section 15 – Regulatory Information

Regulatory Information

US Federal Regulations

Component Analysis

None of this product's components are listed under SARA Section 302 (40 CFR 335 Appendix A), SARA Section 313 (40 CFR 372.65), or CERCLA (40 CFR 302.4).

State Regulations

Component Analysis – State

The following components appear on one or more of the following state hazardous substances lists:

Component	CAS	CA	MA	MN	NJ	PA	RI
Quartz	14808-60-7	No	Yes	Yes	Yes	Yes	No

Safety Data Sheet

Material Name: Crushed Stone

Component Analysis – WHMIS IDL

Component	CAS #	Minimum Concentration
Quartz	14808-60-7	1 %

Additional Regulatory Information

Component Analysis – Inventory

Component	CAS #	TSCA	CAN	EEC
Quartz	14808-60-7	Yes	DSL	EINECS

Section 16 – Other Information

Hazardous Material Information System (HMIS):	Health	1
	Flammability	0
	Physical Hazard	0
	Personal Protection	A

NFPA/HMIS Definitions: 0-Least, 1-Slight, 2-Moderate, 3-High, 4-Extreme

Protective Equipment: Safety glasses, gloves

Key/Legend

EPA = Environmental Protection Agency; TSCA = Toxic Substance Control Act; ACGIH = American Conference of Governmental Industrial Hygienists; IARC = International Agency for Research on Cancer; NIOSH = National Institute for Occupational Safety and Health; NTP = National Toxicology Program; OSHA = Occupational Safety and Health Administration., NJTSR = New Jersey Trade Secret Registry.

Literature References

None

Other Information

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End of Sheet

ATTACHMENT O:
EMISSIONS SUMMARY SHEETS

EMISSIONS SUMMARY

Name of applicant: Kanawha Stone Company

Name of plant: Sandstrom Facility

Particulate Matter or PM (for 45CSR14 Major Source Determination)

Uncontrolled PM		Controlled PM	
lb/hr	TPY	lb/hr	TPY

FUGITIVE EMISSIONS				
<i>Stockpile Emissions</i>	6.08	26.62	1.82	7.99
<i>Unpaved Haulroad Emissions</i>	962.44	4,215.51	288.73	1,264.65
<i>Paved Haulroad Emissions</i>	0.00	0.00	0.00	0.00
Fugitive Emissions Total	968.52	4,242.12	290.56	1,272.64

POINT SOURCE EMISSIONS				
<i>Equipment Emissions</i>	1.40	6.13	0.42	1.84
<i>Transfer Point Emissions</i>	0.81	3.54	0.24	1.06
Point Source Emissions Total*	2.21	9.68	0.66	2.90

*Note: Point Source Total Controlled PM TPY emissions is used for 45CSR14 Major Source determination (see below)

Facility Emissions Total	970.73	4,251.80	291.22	1,275.54
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***Facility Potential to Emit (PTE) (Baseline Emissions) = 2.90**
 (Based on Point Source Total controlled PM TPY emissions from above) ENTER ON LINE 26 OF APPLICATION

Particulate Matter under 10 microns, or PM-10 (for 45CSR30 Major Source Determination)

Uncontrolled PM-10		Controlled PM-10	
lb/hr	TPY	lb/hr	TPY

FUGITIVE EMISSIONS				
<i>Stockpile Emissions</i>	2.86	12.51	0.86	3.75
<i>Unpaved Haulroad Emissions</i>	284.08	1,244.25	85.22	373.28
<i>Paved Haulroad Emissions</i>	0.00	0.00	0.00	0.00
Fugitive Emissions Total	286.93	1,256.76	86.08	377.03

POINT SOURCE EMISSIONS				
<i>Equipment Emissions</i>	0.70	3.07	0.21	0.92
<i>Transfer Point Emissions</i>	0.38	1.68	0.11	0.50
Point Source Emissions Total*	1.08	4.74	0.32	1.42

*Note: Point Source Total Controlled PM-10 TPY emissions is used for 45CSR30 Major Source determination

Facility Emissions Total	288.01	1,261.50	86.40	378.45
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