



**MODIFICATION TO GENERAL PERMIT
REGISTRATION G40-C051A
MILL POINT QUARRY**

Prepared for:

Appalachian Aggregates, LLC
21071 Midland Trail
Lewisburg, West Virginia 24901

Prepared by:

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Project No. 0101-16-0352

December 2016



POTESTA



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SECTION I

APPLICATION FOR GENERAL PERMIT REGISTRATION



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 checked="" type="checkbox"/> G40-C – Nonmetallic Minerals Processing |
| <input type="checkbox"/> G20-B – Hot Mix Asphalt | <input type="checkbox"/> G50-B – Concrete Batch |
| <input type="checkbox"/> G30-D – Natural Gas Compressor Stations | <input type="checkbox"/> G60-C – Class II Emergency Generator |
| <input type="checkbox"/> G33-A – Spark Ignition Internal Combustion Engines | <input type="checkbox"/> G65-C – Class I Emergency Generator |
| <input type="checkbox"/> G35-A – Natural Gas Compressor Stations (Flare/Glycol Dehydration Unit) | <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): Appalachian Aggregates, LLC		2. Federal Employer ID No. (FEIN): 01-0640503	
3. Applicant's mailing address: 21071 Midland Trail Lewisburg, West Virginia 24901		4. Applicant's physical address: Rt. 39 Mill Point, WV 24954	
5. If applicant is a subsidiary corporation, please provide the name of parent corporation: Oldcastle Materials, Inc.			
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.): Replacement of Hopper and Grizzly Feeder	8a. Standard Industrial Classification Classification (SIC) code: 1422	AND	8b. North American Industry System (NAICS) code: 212312
9. DAQ Plant ID No. (for existing facilities only): 075-00002	10. List all current 45CSR13 and other General Permit numbers associated with this process (for existing facilities only): G40-C051A		

A: PRIMARY OPERATING SITE INFORMATION

11A. Facility name of primary operating site: Mill Point Quarry	12A. Address of primary operating site: Mailing: See Box 3 Physical See Box 4	
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: Applicant owns site. ⇨ 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. From I-79 N, take Exit 57 for US-19 S toward Beckley, then take the WV-55 Exit toward Muddlety/Craigsville. Stay on WV-55 E for approximately 53.5 miles and site will be on the left just before the intersection of WV-55 E and Rt. 219/Seneca Trail.		
15A. Nearest city or town: Hillsboro	16A. County: Pocahontas	17A. UTM Coordinates: Northing (KM): 4,224.181 Easting (KM): 571.759 Zone: 17
18A. Briefly describe the proposed new operation or change (s) to the facility: Replacement Grizzly and Feeder Hopper, re-calculation of remote stockpile emissions, and addition of haulroad emissions for stone shipped off site.		19A. Latitude & Longitude Coordinates (NAD83, Decimal Degrees to 5 digits): Latitude: 38.162674 Longitude: -80.180870

B: 1ST ALTERNATE OPERATING SITE INFORMATION (only available for G20, G40, & G50 General Permits) NOT APPLICABLE

11B. Name of 1 st alternate operating site: _____ _____	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. _____ _____ _____	

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): NOT APPLICABLE

11C. Name of 2 nd alternate operating site: _____	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? YES 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**.

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: _____

20. Provide the date of anticipated installation or change: <u>01 / 11 / 2017</u> If this is an After-The-Fact permit application, provide the date upon which the proposed change did happen: : ____/____/____	21. Date of anticipated Start-up if registration is granted: <u>01 / 11 / 2017</u>
---	---

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).

Hours per day 24 Days per week 7 Weeks per year 52 Percentage of operation 100

SECTION III. ATTACHMENTS AND SUPPORTING DOCUMENTS

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

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

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.

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.

- ATTACHMENT A : CURRENT BUSINESS CERTIFICATE
- ATTACHMENT B: PROCESS DESCRIPTION
- ATTACHMENT C: DESCRIPTION OF FUGITIVE EMISSIONS
- ATTACHMENT D: PROCESS FLOW DIAGRAM
- ATTACHMENT E: PLOT PLAN
- ATTACHMENT F: AREA MAP
- ATTACHMENT G: EQUIPMENT DATA SHEETS AND REGISTRATION SECTION APPLICABILITY FORM
- ATTACHMENT H: AIR POLLUTION CONTROL DEVICE SHEETS
- ATTACHMENT I: EMISSIONS CALCULATIONS
- ATTACHMENT J: CLASS I LEGAL ADVERTISEMENT
- ATTACHMENT K: ELECTRONIC SUBMITTAL
- ATTACHMENT L: GENERAL PERMIT REGISTRATION APPLICATION FEE
- ATTACHMENT M: SITING CRITERIA WAIVER
- ATTACHMENT N: MATERIAL SAFETY DATA SHEETS (MSDS)
- ATTACHMENT O: EMISSIONS SUMMARY SHEETS
- OTHER SUPPORTING DOCUMENTATION NOT DESCRIBED ABOVE (Equipment Drawings, Aggregation Discussion, etc.)

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.

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) _____
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 [Signature] 12/08/2016
(please use blue ink) Responsible Official Date

Name & Title John Wilkinson – Vice President
(please print or type)

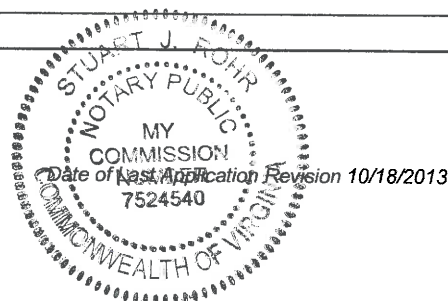
Signature Not Applicable
(please use blue ink) Authorized Representative (if applicable) Date

Applicant's Name Appalachian Aggregates, LLC

Phone & Fax 540-777-7624 Use Email
Phone Fax

Email jwilkinson@appalachianmaterials.com

County/City of Washington
Commonwealth/State of Virginia
The foregoing instrument was acknowledged
before me this 8 day of December 2016
by John Wilkinson
(name of person seeking acknowledgement)
Stuart J. Rohr
Notary Public
My Commission Expires: November 30, 2020



ATTACHMENT A
BUSINESS CERTIFICATE

WEST VIRGINIA
STATE TAX DEPARTMENT

**BUSINESS REGISTRATION
CERTIFICATE**

ISSUED TO:
**APPALACHIAN AGGREGATES, LLC
DBA APPALACHIAN AGGREGATES
2950 CHARLES AVE
DUNBAR, WV 25064-2103**

BUSINESS REGISTRATION ACCOUNT NUMBER: 2322-1066

This certificate is issued on: **01/19/2016**

*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 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.**

ATTACHMENT B
PROCESS DESCRIPTION

ATTACHMENT B

PROCESS DESCRIPTION

Introduction to Project

Appalachian Aggregates, LLC is applying for a revised registration under General Permit G40-C to include the replacement of a vibrating grizzly feeder (GF1) and hopper (H1). The yearly rate of the new grizzly feeder will be the same as the existing facility feed rate which is 600 tons per hour and 5,256,000 tons per year. In Attachment G, the proposed hopper and grizzly feeder are shown in blue text. The facility potential to emit (PTE) has also been updated to include truck loading transfer points, haulroad emissions for trucking stone off-site, and re-calculation/combining of sixteen (16) remote open stockpiles into seven (7) remote open stockpile areas.

Permitting History Since Entering the General Permit Program

Boxley Aggregates of West Virginia, LLC (Boxley) was initially registered under the General Permit G40 by G40-C051 in 2011. An amendment to the registration was approved in January 2014 under G40-C051A for the installation of a stand-alone agricultural lime plant. On December 31, 2015, Boxley sold the facility to Oldcastle Materials, Inc. and, effective January 8, 2016, the company name was changed to Appalachian Aggregates, LLC. The West Virginia Department of Environmental Protection, Division of Air Quality (DAQ) approved the transfer of permit G40-C015A to Appalachian Aggregates, LLC in a letter dated May 2, 2016. The current, existing permit registration is G40-C051A.

Facility and Process Description

The Main Plant is comprised of primary crushing and screening operations for sized aggregate production. Final sized products are stockpiled and loaded to truck via front-end loaders. The Agricultural Lime Plant consists of crushing and screening operations with material stockpiled in a fully enclosed building to await shipment off-site. For the PTE, the hourly emissions estimate is based on the entire facility concurrently operating. Operating rates are listed in the affected source sheets for the processing and conveying equipment.

Main Plant

Stone is hauled by front-end loader from the quarry pit and dumped in Hopper H1 with attached vibrating Grizzly Feeder GF1 (TPA). The grizzly feeder transfers stone either to jaw crusher CR1 or a bypass chute to belt conveyor BC1 (TP1). Crushed stone is transferred from the jaw crusher to belt conveyor BC1 (TP2). Water sprays at the discharge of the crusher help minimize fugitive emissions. The stone is conveyed from BC1 to BC2 (TP3) and BC2 to triple deck screen S1 (TP4). The oversize material from screen S1 is transferred via belt conveyor BC5 to stockpile OS-C (TP8) or by way of belt conveyor BC7 (TP5) to a fully enclosed bin BS1 (TP12). The mid-sized material from

screen S1 is transferred to belt conveyor BC6 (TP6) then to stockpile OS-B (TP9) or by way of belt conveyor BC7 (TP5) to a fully enclosed bin BS1 (TP12). The fine material from the screen S1 (TP7) is placed into stockpile OS-A via belt conveyors BC3 to BC4 (TP10) to OS-A (TP11). From the bin BS1, overflow material can drop to stockpile OS-D through a chute. Stone is transferred out of the bin to belt conveyor BC8 by a feeder (TP13) then dropped into an impact crusher CR2 (TP14). Water sprays at the inlet and exit of the crusher minimize fugitive emissions as the sized material is transferred to triple deck screen S2 by belt conveyor BC9 (TP16). The oversize material from screen S2 is either transferred to belt conveyor BC15 (TP17) then to BC16 (TP27) and then to screen S3 (TP28), or by way of belt conveyor BC15A (TP21) to a rotary crusher CR3 (TP34). The mid-sized material from screen S2 (TP18 & TP19) is conveyed to stockpiles OS-G (TP22) and OS-F (TP23) through belt conveyors BC14 and BC13, respectively, or to screen S3 via belt conveyors BC15 (TP17) / BC16 (TP28). The fine material from screen S2 transfers to BC10 (TP20), then from BC10 to BC11 (TP24) and BC12 to OS-E (TP26). The fines from S2 may also be directed to screen S3 by transferring to belt conveyors BC15 (TP27) / BC16 (TP28). The material is screened through S3 with the mid-sized material (TP30 & TP31) transferred to open stockpiles OS-J and OS-I through conveyor belts BC20 (TP36) and BC21 (TP37). The oversized material (TP29) is moved in closed circuit to the rotary crusher CR3 by belt conveyors BC17 (TP33) and BC18 (TP34). The fine material from S3 (TP32) is transferred to OS-H by belt conveyors BC22 (TP38) and BC23 (TP39). Water sprays at the transfer points control fugitive emissions. There are six (6) remote open stockpile areas (Open Stockpile Area K through Q) in which material is stored until it is loaded onto trucks and shipped off-site. Numerous individual stockpiles can be inside an open stockpile area and may consist of several aggregate types.

Agricultural Lime Plant:

A front-end loader will feed material into (2) 25 ton feed bins, LPBIN1 (TP40) and LPBIN2 (TP41). Belt feeders LPBC1 (TP42) and LPBC2 (TP43) transfer the material onto belt conveyor LPBC3 (TP44, TP45). Belt conveyor LPBC3 (TP46) transfers material into a cage mill crusher LPCR1. The cage mill crusher LPCR1 (TP47) discharges into a screw conveyor LPSC1 that feeds a bucket elevator LPBE1 (TP48). The bucket elevator LPBE1 discharges material onto a vibrating screen LPVS1 (TP49). The vibrating screen LPVS1 transfers material into a screw conveyor LPSC2 (TP50). The screw conveyor LPSC2 (TP51) discharges agricultural lime into a stockpile FES-A located in a fully enclosed building. A front end loader loads agricultural lime into trucks for shipping off-site. A baghouse will be utilized to control fugitive emissions from this plant.

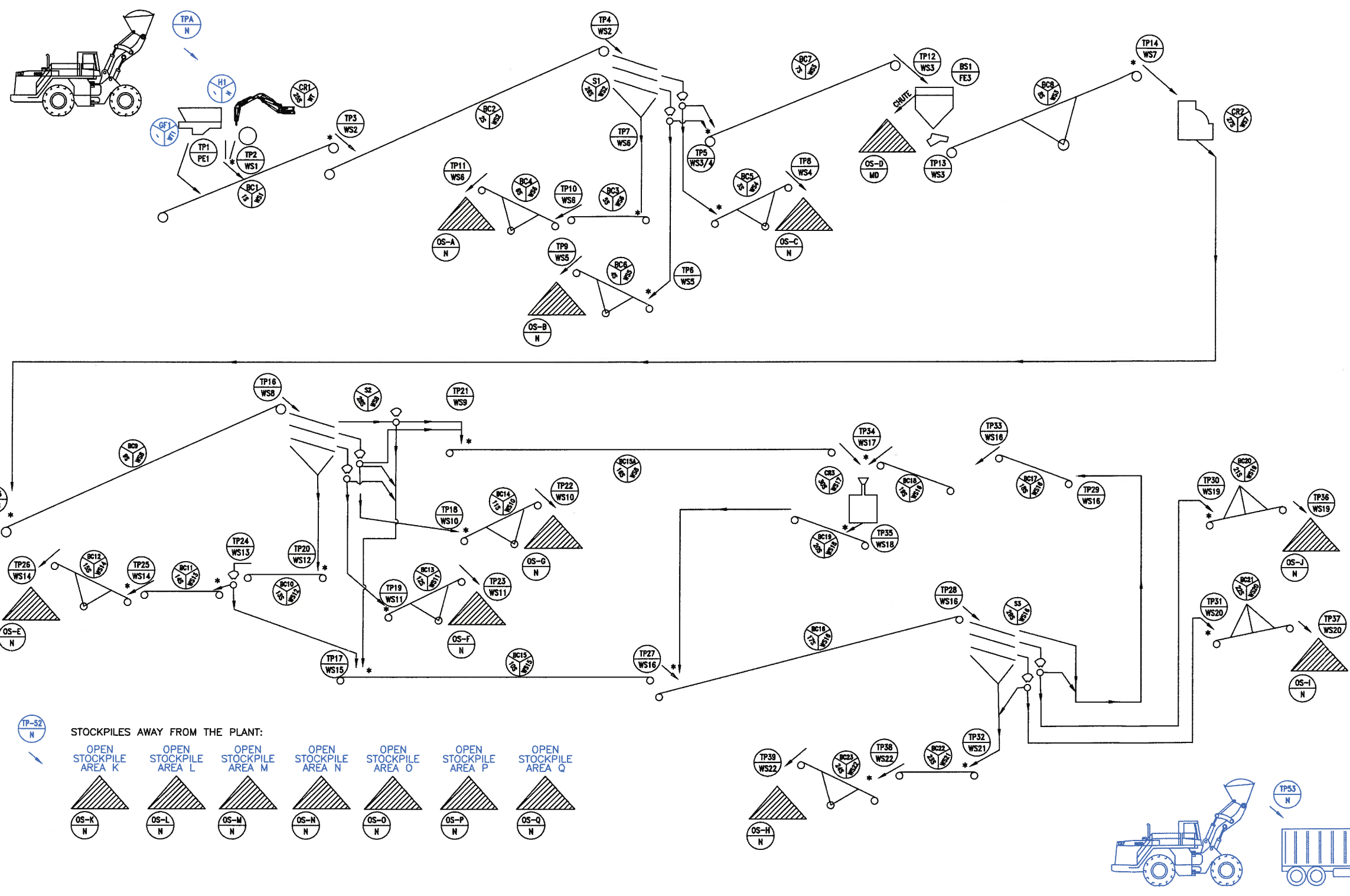
ATTACHMENT C
DESCRIPTION OF FUGITIVE EMISSIONS

ATTACHMENT C

DESCRIPTION OF FUGITIVE EMISSIONS

Fugitive emissions from the facility include particulate emissions from haulroads, stockpiles, and work areas. The haulroad surfaces are coarse gravel and are used by trucks, endloaders, and company personnel. Water is applied to the haulroads as needed via a water truck. Water is also applied to the work areas around the stockpiles and plant by the water truck to control particulate emissions. The stockpiles will be controlled by the water truck as needed. Usually, the stockpiles contain a sufficient amount of moisture from upstream water sprays to minimize particulate emissions. The water sprays and water supply lines will be protected from freezing (winterized) by the use of thermal protection: insulation and/or heat taping of exposed areas as needed. In the event that the thermal protection or other methods of winterizing do not prevent freezing, additives may be mixed into the water for freeze proofing.

ATTACHMENT D
PROCESS FLOW DIAGRAM



XREF Files: Logo.jpg, Mill Point Plot Plan A 1=50.jpg
 IMAGE Files: S:\C3D-Projects\16-0352-BOXLEY-MILL-POINT\Mill Point Flowchart.dwg
 File: S:\C3D-Projects\16-0352-BOXLEY-MILL-POINT\Mill Point Flowchart.dwg
 Plot Date/Time: Dec 05, 2016 - 9:49am
 Plotted By: jmorfin

NOTES:
 ALL EQUIPMENT IS CONSIDERED NSPS
 — ORIGINAL PLANT EQUIPMENT
 * WATER SPRAY LOCATIONS



POTESTA & ASSOCIATES, INC.
 ENGINEERS AND ENVIRONMENTAL CONSULTANTS
 7012 MacCorkle Ave. SE, Charleston, WV 25304
 TEL: (304) 342-1400 FAX: (304) 343-9031
 E-Mail Address: potesta@potesta.com

Project
APPALACHIAN AGGREGATES, LLC
MILL POINT PLANT
 ROUTE 39
 MILL POINT, WEST VIRGINIA 24954

Scale NO SCALE	Dwg. No. FIGURE 1
Date DEC. 2016	

PROJECT #: 16-0352 FILENAME: 16-0352-01

ATTACHMENT E

PLOT PLAN

Numerous individual stockpiles can be inside a Stockpile Area and may consist of several aggregate types.



Open Stockpile Area K
2.7 acres

Open Stockpile Area L
0.8 acres

Open Stockpile Area Q
0.65 acres

Please see Figure 2 for detailed process equipment labels and locations.

Open Stockpile Area M
0.5 acres

Open Stockpile Area N
1.5 acres

Open Stockpile Area O
1.1 acres

Open Stockpile Area P
1.4 acres

POTESTIA
CONSULTING ENGINEERS
DATE: November 2016
PROJECT NO. 0101-16-0352
MAPPING FOR VISUAL REPRESENTATION ONLY

PLOT PLAN (FIGURE 1)
MILL POINT QUARRY
HILLSBORO, POCAHONTAS
COUNTY, WV
NOT TO SCALE



DATE: November 2016
PROJECT NO. 0101-16-0352

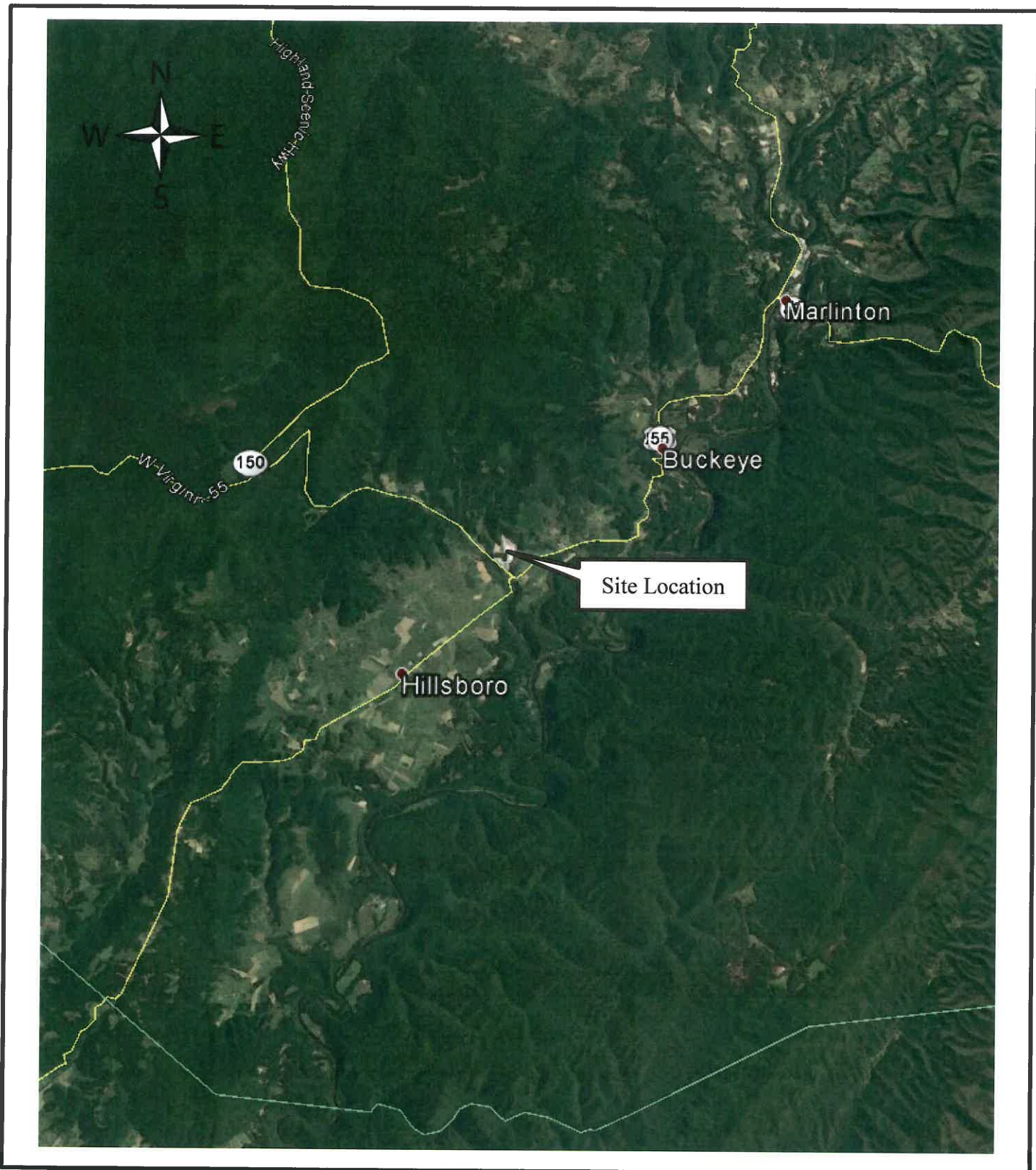
MAPPING FOR VISUAL REPRESENTATION ONLY

PLOT PLAN (FIGURE 2)
MILL POINT QUARRY
HILLSBORO, POCAHONTAS
COUNTY, WV

NOT TO SCALE

ATTACHMENT F

AREA MAP



DATE: October 2016

PROJECT NO. 0101-16-0352

MAPPING FOR VISUAL REPRESENTATION ONLY

AREA MAP
 MILL POINT PLANT
 MILL POINT, POCAHONTAS
 COUNTY, WV
 NOT TO SCALE

ATTACHMENT G

**EQUIPMENT DATA SHEETS AND REGISTRATION SECTION
APPLICABILITY FORM**

General Permit G40-C Registration Section Applicability Form

General Permit G40-C allows qualified registrants to seek registration for a variety of sources. These sources include nonmetallic mineral processing plants which include crushers, screens, transfer points (loading, unloading, etc.), open stockpiles, bins, haulroads, reciprocating internal combustion engine driven compressors, emergency standby generators, and tanks. All registered facilities will be subject to Sections 1.0, 1.1, 2.0, 3.0 and 4.0.

General Permit G40-C allows the registrant to choose which sections of the permit that they wish to seek registration under. Therefore, please mark which sections that you are applying for registration under. Please keep in mind, that if this registration is approved, the issued registration will state which sections will apply to your affected facility.

- | | | |
|------------------------|--|-------------------------------------|
| Section 5 ¹ | Nonmetallic Mineral Processing Operations | <input checked="" type="checkbox"/> |
| Section 6 | Standards of Performance for Nonmetallic Mineral Processing Plants that Commenced Construction, Reconstruction or Modification after August 31, 1983 but before April 22, 2008 (40CFR60 Subpart OOO) | <input checked="" type="checkbox"/> |
| Section 7 | Standards of Performance for Nonmetallic Mineral Processing Plants that Commenced Construction, Reconstruction or Modification on or after April 22, 2008. (40CFR60 Subpart OOO) | <input checked="" type="checkbox"/> |
| Section 8 ² | Reciprocating Internal Combustion Engines (R.I.C.E.) | <input type="checkbox"/> |
| Section 9 | Tanks | <input type="checkbox"/> |
| Section 10 | Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (40CFR60 Subpart IIII) | <input type="checkbox"/> |
| Section 11 | Standards of Performance for Stationary Spark Ignition Internal Combustion Engines (40CFR60 Subpart JJJJ) | <input type="checkbox"/> |

1 Affected facilities that are subject to Section 5 may also be subject to Sections 6 and 7. Therefore, if the applicant is seeking registration under multiple sections, they will need to select all applicable sections.

2 Affected facilities that are subject to Section 8 may also be subject to Sections 10 or 11. Therefore, if the applicant is seeking registration under multiple sections, they will need to select all applicable sections.

CRUSHING AND SCREENING AFFECTED SOURCE SHEET

Source Identification Number ¹		CR1	CR2	CR3	S1	S2	S3
Type of Crusher or Screen ²		JC	IMP	IMP	TD	TD	TD
Make, Model No., Serial No. ³		Cedar Rapids	Telsmith	ISC	Cedar Rapids	Cedar Rapids	Cedar Rapids
Date of Construction, Reconstruction, or Modification (Month/Year) ⁴		1998	1999	1998	1998	1998	2001
Maximum Throughput ⁵	tons/hour	600	600	400	600	600	1,000
	tons/year	5,256,000	5,256,000	3,504,000	5,256,000	5,256,000	8,760,000
Material sized from/to: ⁶		+12"/0	-12"/0	-4"/0	NA	NA	NA
Average Moisture Content (%) ⁷		2	2	2	2	2	2
Control Device ID Number ⁸		WT/WS1	WS7/WS8	WS17/WS18	WS2	WS8	WS16
Baghouse Stack Parameters ⁹	height (ft)						
	diameter (ft)						
	volume (ACFM)						
	exit temp (F)						
	UTM Coordinates						
Maximum Operating Schedule ¹⁰	hours/day	24	24	24	24	24	24
	days/year	365	365	365	365	365	365
	hours/year	8,760	8,760	8,760	8,760	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 _____	CC	Cone Crusher
				IMP	Impact Crusher
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"/-3/4").
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.

CRUSHING AND SCREENING AFFECTED SOURCE SHEET CON'T

Source Identification Number ¹		GF1 (Grizzly Feeder)	LPCR1	LPVS1			
Type of Crusher or Screen ²		NA	CM	DD			
Make, Model No., Serial No. ³		NA	Steadman	Midwestern			
Date of Construction, Reconstruction, or Modification (Month/Year) ⁴		2016	2013	2013			
Maximum Throughput ⁵	tons/hour	600	50	50			
	tons/year	5,256,000	438,000	438,000			
Material sized from/to: ⁶		-5" passthrough	-1 1/2" / 1/8"	NA			
Average Moisture Content (%) ⁷		2	1	1			
Control Device ID Number ⁸		Wet	CS- BH1&2	CS-BH3			
Baghouse Stack Parameters ⁹	height (ft)						
	diameter (ft)						
	volume (ACFM)						
	exit temp (F)						
	UTM Coordinates						
Maximum Operating Schedule ¹⁰	hours/day	24	24	24			
	days/year	365	365	365			
	hours/year	8,760	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.

CRUSHING AND SCREENING AFFECTED SOURCE SHEET CON'T CONVEYING AFFECTED SOURCE SHEET

Source Identification Number ¹	Date of Construction, Reconstruction, or Modification (Month/Year) ²	Type of Material Handled ³	Size of Material Handled ⁴	Maximum Material Transfer Rate ⁵		Average Moisture Content (%) ⁶	Control Device ⁷
				tons/hour	tons/year		
BC1	1998	Aggregate	0"- 12"	600	5,256,000	2	WS
BC2	1998	Aggregate	0"- 12"	600	5,256,000	2	WS
BC3	1998	Aggregate	0"- 1 1/2"	150	1,314,000	2	WS
BC4	1998	Aggregate	0"- 1 1/2"	150	1,314,000	2	WS
BC5	1998	Aggregate	0"- 1 1/2"	250	2,190,000	2	WS
BC6	1998	Aggregate	1/2"- 3"	150	1,314,000	2	WS
BC7	1998	Aggregate	0"- 12"	600	5,256,000	2	WS
BC8	1998	Aggregate	0"- 12"	600	5,256,000	2	WS
BC9	1998	Aggregate	0"- 4"	600	5,256,000	2	WS
BC10	1998	Aggregate	0"- 3/4"	200	1,752,000	2	WS
BC11	1998	Aggregate	0"- 3/4"	200	1,752,000	2	WS
BC12	1998	Aggregate	0"- 3/4"	200	1,752,000	2	WS
BC13	1998	Aggregate	1 1/2"- 3/4"	200	1,752,000	2	WS
BC14	1998	Aggregate	1/2"- 3"	200	1,752,000	2	WS
BC15	1998	Aggregate	0"- 4"	600	5,256,000	2	WS
BC15A	2011	Aggregate	0"- 4"	400	3,504,000	2	WS
BC16	2001	Aggregate	0"- 4"	1,000	8,760,000	2	WS

1. Enter the appropriate Source Identification Number for each conveyor using the following codes. For example, multiple belt conveyors should be designated BC-1, BC-2, BC-3 etc. Transfer points are considered emission points, not sources, and should not be included in the *Conveying Affected Source Sheet*. Transfer Point Identification Numbers shall be assigned in the *Emission Calculation Sheet*.

BC	Belt Conveyor	BE	Bucket Elevator	DL	Drag-link Conveyor
PS	Pneumatic System	SC	Screw Conveyor	VC	Vibrating Conveyor
OT	Other				

2. Enter the date that each crusher and screen was constructed, reconstructed, or modified.
3. Enter the type of material being handled - Raw Material (RM) Sized Material (SM) Refuse (R) Other (O)
4. Enter the nominal size of the material being conveyed (e.g. sized material- 3/4" x 0). If more than one material is handled by the listed conveyor, list each material and enter the appropriate data for each material.
5. Enter the maximum material transfer rate for each conveyor in tons per hour and tons per year.
6. Enter the average percent moisture content of the conveyed material.
7. Enter the control device for the conveyor. PE - Partial Enclosure (example 3/4 hoop), FE - Full Enclosure, N - None

CONVEYING AFFECTED SOURCE SHEET CON'T

Source Identification Number ¹	Date of Construction, Reconstruction, or Modification (Month/Year) ²	Type of Material Handled ³	Size of Material Handled ⁴	Maximum Material Transfer Rate ⁵		Average Moisture Content (%) ⁶	Control Device ⁷
				tons/hour	tons/year		
BC17	1998	Aggregate	1/2" - 4"	400	3,504,000	2	WS
BC18	1998	Aggregate	1/2" - 4"	400	3,504,000	2	WS
BC19	1998	Aggregate	0" - 2"	400	3,504,000	2	WS
BC20	1998	Aggregate	1/2" - 1"	300	2,628,000	2	WS
BC21	1998	Aggregate	1/2" - 3/16"	200	1,752,000	2	WS
BC22	1998	Aggregate	0" - 1/2"	500	4,380,000	2	WS
BC23	1998	Aggregate	0" - 1/2"	500	4,380,000	2	WS
Agricultural Lime Plant							
LPBC1	2006	Aggregate	0" - 1 1/2"	400	3,500,000	1	FE
LPBC2	2005	Aggregate	0" - 1 1/2"	400	3,500,000	1	FE
LPBC3	2005	Aggregate	0" - 1 1/2"	600	3,500,000	1	WS
LPSC1	2005	Aggregate	0" - 1/8"	600	3,500,000	1	BH2
LPBE1	2005	Aggregate	0" - 1/8"	600	3,500,000	1	BH3
LPSC2	2014	Aggregate	0" - 1/8"	600	3,500,000	1	BH5

1. Enter the appropriate Source Identification Number for each conveyor using the following codes. For example, multiple belt conveyors should be designated BC-1, BC-2, BC-3 etc. Transfer points are considered emission points, not sources, and should not be included in the *Conveying Affected Source Sheet*. Transfer Point Identification Numbers shall be assigned in the *Emission Calculation Sheet*.

BC	Belt Conveyor	BE	Bucket Elevator	DL	Drag-link Conveyor
PS	Pneumatic System	SC	Screw Conveyor	VC	Vibrating Conveyor
OT	Other				

2. Enter the date that each crusher and screen was constructed, reconstructed, or modified.
3. Enter the type of material being handled - Raw Material (RM) Sized Material (SM) Refuse (R) Other (O)
4. Enter the nominal size of the material being conveyed (e.g. sized material- 3/4" x 0). If more than one material is handled by the listed conveyor, list each material and enter the appropriate data for each material.
5. Enter the maximum material transfer rate for each conveyor in tons per hour and tons per year.
6. Enter the average percent moisture content of the conveyed material.
7. Enter the control device for the conveyor. PE - Partial Enclosure (example 3/4 hoop), FE - Full Enclosure, N - None

STORAGE ACTIVITY AFFECTED SOURCE SHEET

Source Identification Number ¹	OS-A	OS-B	OS-C	OS-D	OS-E	OS-F
Type of Material Stored ²	Sized Material	Sized Material	Sized Material	Sized Material	Sized Material	Sized Material
Average Moisture Content (%) ³	2	2	2	2	2	2
Maximum Yearly Storage Throughput (tons) ⁴	1,314,000	1,314,000	2,190,000	438,000	1,752,000	1,752,000
Maximum Storage Capacity (tons) ⁵	7,000	7,000	7,000	7,000	7,000	7,000
Maximum Base Area (ft ²) ⁶	11,236	11,236	11,236	11,236	11,236	11,236
Maximum Pile Height (ft) ⁷	40	40	40	40	40	40
Method of Material Load-in ⁸	MC	MC	MC	MC	MC	MC
Load-in Control Device Identification Number ⁹	SW-WS	SW-WS	SW-WS	SW-WS	SW-WS	SW-WS
Storage Control Device Identification Number ⁹	None	None	None	None	None	None
Method of Material Load-out ⁸	FE	FE	FE	FE	FE	FE
Load-out Control Device Identification Number ⁹	None	None	None	None	None	None

1. Enter the appropriate Source Identification Number for each storage activity using the following codes. For example, if the facility utilizes three storage bins, four open stockpiles and one storage building (full enclosure), the Source Identification Numbers should be BS-1, BS-2, and BS-3; OS-1, OS-2, OS-3, and OS-4; and SB-1, respectively.

BS Bin or Storage Silo (full enclosure)	E3 Enclosure (three sided enclosure)
OS Open Stockpile	SB Storage Building (full enclosure)
SF Stockpiles with wind fences	OT Other
2. Describe the type of material stored or stockpiled. (e.g. sized material, raw material, refuse, etc).
3. Enter the average percent moisture content of the stored material.
4. Enter the maximum yearly storage throughput for each storage activity.
5. Enter the maximum storage capacity for each storage activity in tons (e.g. silo capacity, maximum stockpile size, etc.)
6. For stockpiles, enter the maximum stockpile base area.
7. For stockpiles, enter the maximum stockpile height.
8. Enter the method of load-in or load-out to/from stockpiles or bins using the following codes:

CS Clamshell	SS Stationary Conveyor/Stacker
FC Fixed Height Chute from Bins	ST Stacking Tube
FE Front Endloader	TC Telescoping Chute from Bins
MC Mobile Conveyor/Stacker	TD Truck Dump
UC Under-pile or Under-Bin Reclaim Conveyor	PC Pneumatic Conveyor/Stacker
RC Rake or Bucket Reclaim Conveyor	OT Other <u>RS Radial Stacker</u>
9. Enter the appropriate Control Device Identification Number for each storage activity. Refer to Table A - Control Device Listing and Control Device Identification Number Instructions in the Reference Document for Control Device ID prefixes and numbering.

STORAGE ACTIVITY AFFECTED SOURCE SHEET CON'T

Source Identification Number ¹	OS-G	OS-H	OS-I	OS-J	OS-K	OS-L
Type of Material Stored ²	Sized Material	Sized Material	Sized Material	Sized Material	Sized Material	Sized Material
Average Moisture Content (%) ³	2	2	2	2	2	2
Maximum Yearly Storage Throughput (tons) ⁴	1,752,000	4,380,000	1,752,000	2,628,000	671,000	671,000
Maximum Storage Capacity (tons) ⁵	7,000	7,000	7,000	7,000	163,000	48,500
Maximum Base Area (ft ²) ⁶	11,236	11,236	11,236	11,236	117,613	34,848
Maximum Pile Height (ft) ⁷	40	40	40	40	40	40
Method of Material Load-in ⁸	MC	MC	MC	MC	TD	TD
Load-in Control Device Identification Number ⁹	SW-WS	SW-WS	SW-WS	SW-WS	None	None
Storage Control Device Identification Number ⁹	None	None	None	None	WT	WT
Method of Material Load-out ⁸	FE	FE	FE	FE	FE	FE
Load-out Control Device Identification Number ⁹	None	None	None	None	None	None

1. Enter the appropriate Source Identification Number for each storage activity using the following codes. For example, if the facility utilizes three storage bins, four open stockpiles and one storage building (full enclosure), the Source Identification Numbers should be BS-1, BS-2, and BS-3; OS-1, OS-2, OS-3, and OS-4; and SB-1, respectively.

BS Bin or Storage Silo (full enclosure)	E3 Enclosure (three sided enclosure)
OS Open Stockpile	SB Storage Building (full enclosure)
SF Stockpiles with wind fences	OT Other
	RS Radial Stacker

2. Describe the type of material stored or stockpiled. (e.g. sized material, raw material, refuse, etc).

3. Enter the average percent moisture content of the stored material.

4. Enter the maximum yearly storage throughput for each storage activity.

5. Enter the maximum storage capacity for each storage activity in tons (e.g. silo capacity, maximum stockpile size, etc.)

6. For stockpiles, enter the maximum stockpile base area.

7. For stockpiles, enter the maximum stockpile height.

8. Enter the method of load-in or load-out to/from stockpiles or bins using the following codes:

CS Clamshell	SS Stationary Conveyor/Stacker
FC Fixed Height Chute from Bins	ST Stacking Tube
FE Front Endloader	TC Telescoping Chute from Bins
MC Mobile Conveyor/Stacker	TD Truck Dump
UC Under-pile or Under-Bin Reclaim Conveyor	PC Pneumatic Conveyor/Stacker
RC Rake or Bucket Reclaim Conveyor	OT Other

9. Enter the appropriate Control Device Identification Number for each storage activity. Refer to Table A - Control Device Listing and Control Device Identification Number Instructions in the Reference Document for Control Device ID prefixes and numbering.

STORAGE ACTIVITY AFFECTED SOURCE SHEET CON'T

Source Identification Number ¹	OS-M	OS-N	OS-O	OS-P	OS-Q	OS-R (Remove)
Type of Material Stored ²	Sized Material	Sized Material	Sized Material	Sized Material	Sized Material	Sized Material
Average Moisture Content (%) ³	2	2	2	2	2	2
Maximum Yearly Storage Throughput (tons) ⁴	671,000	671,000	671,000	671,000	671,000	313,133
Maximum Storage Capacity (tons) ⁵	31,000	91,000	66,000	85,000	40,000	20,000
Maximum Base Area (ft ²) ⁶	21,780	65,340	47,916	60,984	28,314	14,000
Maximum Pile Height (ft) ⁷	40	40	40	40	40	40
Method of Material Load-in ⁸	TD	TD	TD	TD	TD	TD
Load-in Control Device Identification Number ⁹	None	None	None	None	None	None
Storage Control Device Identification Number ⁹	WT	WT	WT	WT	WT	WT
Method of Material Load-out ⁸	FE	FE	FE	FE	FE	FE
Load-out Control Device Identification Number ⁹	None	None	None	None	None	None

1. Enter the appropriate Source Identification Number for each storage activity using the following codes. For example, if the facility utilizes three storage bins, four open stockpiles and one storage building (full enclosure), the Source Identification Numbers should be BS-1, BS-2, and BS-3; OS-1, OS-2, OS-3, and OS-4; and SB-1, respectively.

- | | |
|---|--------------------------------------|
| BS Bin or Storage Silo (full enclosure) | E3 Enclosure (three sided enclosure) |
| OS Open Stockpile | SB Storage Building (full enclosure) |
| SF Stockpiles with wind fences | OT Other |

2. Describe the type of material stored or stockpiled. (e.g. sized material, raw material, refuse, etc).

3. Enter the average percent moisture content of the stored material.

4. Enter the maximum yearly storage throughput for each storage activity.

5. Enter the maximum storage capacity for each storage activity in tons (e.g. silo capacity, maximum stockpile size, etc.)

6. For stockpiles, enter the maximum stockpile base area.

7. For stockpiles, enter the maximum stockpile height.

8. Enter the method of load-in or load-out to/from stockpiles or bins using the following codes:

- | | |
|---|--------------------------------|
| CS Clamshell | SS Stationary Conveyor/Stacker |
| FC Fixed Height Chute from Bins | ST Stacking Tube |
| FE Front Endloader | TC Telescoping Chute from Bins |
| MC Mobile Conveyor/Stacker | TD Truck Dump |
| UC Under-pile or Under-Bin Reclaim Conveyor | PC Pneumatic Conveyor/Stacker |
| RC Rake or Bucket Reclaim Conveyor | OT Other |

9. Enter the appropriate Control Device Identification Number for each storage activity. Refer to Table A - Control Device Listing and Control Device Identification Number Instructions in the Reference Document for Control Device ID prefixes and numbering.

STORAGE ACTIVITY AFFECTED SOURCE SHEET CON'T

Source Identification Number ¹	OS-S (Remove)	OS-T (Remove)	OS-U (Remove)	OS-V (Remove)	OS-W (Remove)	OS-X (Remove)
Type of Material Stored ²	Sized Material	Sized Material	Sized Material	Sized Material	Sized Material	Sized Material
Average Moisture Content (%) ³	2	2	2	2	2	2
Maximum Yearly Storage Throughput (tons) ⁴	313,133	313,133	313,133	313,133	313,133	313,133
Maximum Storage Capacity (tons) ⁵	14,000	50,000	50,000	50,000	50,000	50,000
Maximum Base Area (ft ²) ⁶	10,000	30,000	30,000	30,000	30,000	30,000
Maximum Pile Height (ft) ⁷	40	40	40	40	40	40
Method of Material Load-in ⁸	TD	TD	TD	TD	TD	TD
Load-in Control Device Identification Number ⁹	None	None	None	None	None	None
Storage Control Device Identification Number ⁹	WT	WT	WT	WT	WT	WT
Method of Material Load-out ⁸	FE	FE	FE	FE	FE	FE
Load-out Control Device Identification Number ⁹	None	None	None	None	None	None

1. Enter the appropriate Source Identification Number for each storage activity using the following codes. For example, if the facility utilizes three storage bins, four open stockpiles and one storage building (full enclosure), the Source Identification Numbers should be BS-1, BS-2, and BS-3; OS-1, OS-2, OS-3, and OS-4; and SB-1, respectively.

BS Bin or Storage Silo (full enclosure) E3 Enclosure (three sided enclosure)
 OS Open Stockpile SB Storage Building (full enclosure)
 SF Stockpiles with wind fences OT Other

2. Describe the type of material stored or stockpiled. (e.g. sized material, raw material, refuse, etc).

3. Enter the average percent moisture content of the stored material.

4. Enter the maximum yearly storage throughput for each storage activity.

5. Enter the maximum storage capacity for each storage activity in tons (e.g. silo capacity, maximum stockpile size, etc.)

6. For stockpiles, enter the maximum stockpile base area.

7. For stockpiles, enter the maximum stockpile height.

8. Enter the method of load-in or load-out to/from stockpiles or bins using the following codes:

CS Clamshell SS Stationary Conveyor/Stacker
 FC Fixed Height Chute from Bins ST Stacking Tube
 FE Front Endloader TC Telescoping Chute from Bins
 MC Mobile Conveyor/Stacker TD Truck Dump
 UC Under-pile or Under-Bin Reclaim Conveyor PC Pneumatic Conveyor/Stacker
 RC Rake or Bucket Reclaim Conveyor OT Other

9. Enter the appropriate Control Device Identification Number for each storage activity. Refer to Table A - Control Device Listing and Control Device Identification Number Instructions in the Reference Document for Control Device ID prefixes and numbering.

STORAGE ACTIVITY AFFECTED SOURCE SHEET CON'T

Source Identification Number ¹	OS-Y (Remove)	FES-A	BS1	LPBIN1	LPBIN2	H1
Type of Material Stored ²	Sized Material	Sized Material - Lime	Sized Material	Raw Material - Lime	Raw Material - Lime	Raw Material
Average Moisture Content (%) ³	2	1	2	1	1	2
Maximum Yearly Storage Throughput (tons) ⁴	313,133	438,000	5,256,000	219,000	219,000	5,256,000
Maximum Storage Capacity (tons) ⁵	50,000	4,000	100	25	25	75
Maximum Base Area (ft ²) ⁶	30,000	6,000	NA	NA	NA	NA
Maximum Pile Height (ft) ⁷	40	22	NA	NA	NA	NA
Method of Material Load-in ⁸	TD	SC	SS	FE	FE	FE
Load-in Control Device Identification Number ⁹	None	SL-FE	WS	None	None	None
Storage Control Device Identification Number ⁹	WT	SW-FE	None	None	None	None
Method of Material Load-out ⁸	FE	FE	SS	SS	SS	SS
Load-out Control Device Identification Number ⁹	None	None	WS	WS	WS	None

- Enter the appropriate Source Identification Number for each storage activity using the following codes. For example, if the facility utilizes three storage bins, four open stockpiles and one storage building (full enclosure), the Source Identification Numbers should be BS-1, BS-2, and BS-3; OS-1, OS-2, OS-3, and OS-4; and SB-1, respectively.

BS Bin or Storage Silo (full enclosure)	E3 Enclosure (three sided enclosure)
OS Open Stockpile	SB Storage Building (full enclosure)
SF Stockpiles with wind fences	OT Other
- Describe the type of material stored or stockpiled. (e.g. sized material, raw material, refuse, etc).
- Enter the average percent moisture content of the stored material.
- Enter the maximum yearly storage throughput for each storage activity.
- Enter the maximum storage capacity for each storage activity in tons (e.g. silo capacity, maximum stockpile size, etc.)
- For stockpiles, enter the maximum stockpile base area.
- For stockpiles, enter the maximum stockpile height.
- Enter the method of load-in or load-out to/from stockpiles or bins using the following codes:

CS Clamshell	SS Stationary Conveyor/Stacker
FC Fixed Height Chute from Bins	ST Stacking Tube
FE Front Endloader	TC Telescoping Chute from Bins
MC Mobile Conveyor/Stacker	TD Truck Dump
UC Under-pile or Under-Bin Reclaim Conveyor	PC Pneumatic Conveyor/Stacker
RC Rake or Bucket Reclaim Conveyor	OT Other
- Enter the appropriate Control Device Identification Number for each storage activity. Refer to Table A - Control Device Listing and Control Device Identification Number Instructions in the Reference Document for Control Device ID prefixes and numbering.

HAULROAD EMISSIONS

Include G40-C Emission Calculation Spreadsheet indicating haulroad emissions, or submit calculations indicating assumptions made to substantiate emission values.

Emission Source	Uncontrolled Emissions (PM/PM10/PM2.5)*		Controlled Emissions (PM/PM10/PM2.5)*	
	Hourly (lb/hr)	Annual (tpy)	Hourly (lb/hr)	Annual (tpy)
Stone to Plant	67.02/19.78	293.54/86.64	20.11/19.78	88.06/25.99
Stock Trucks	108.12/31.91	203.27/60.00	32.44/31.91	60.98/18.00
Front End Loaders	16.85/4.97	73.81/21.79	5.06/1.49	22.14/6.54
Trucking Stone Off-Site	433.58/127.98	1,874.11/553.16	130.08/38.39	562.23/165.95
*The G40B emission calculation spreadsheet provided by the DAQ does not calculate PM2.5.				

ENGINE DATA SHEET

Source Identification Number ¹		GEN-3					
Engine Manufacturer and Model		CAT 3512					
Manufacturer's Rated bhp/rpm		1616/1800					
Source Status ²		ES					
Date Installed/Modified/Removed (Month/Year) ³		1997					
Engine Manufactured/Reconstruction Date ⁴		May 1995					
Is this a Certified Stationary Compression Ignition Engine according to 40CFR60 Subpart III? (Yes or No) ⁵		No					
Is this a Certified Stationary Spark Ignition Engine according to 40CFR60 Subpart JJJ? (Yes or No) ⁶		No					
Engine, Fuel and Combustion Data	Engine Type ⁷	NA					
	APCD Type ⁸	NA					
	Fuel Type ⁹	2FO					
	H ₂ S (gr/100 scf)	NA					
	Operating bhp/rpm	1616/1800					
	BSFC (Btu/bhp-hr)	0.35 lb/bhp-hr					
	Fuel throughput (ft ³ /hr)	81.63 gal/hr					
	Fuel throughput (MMft ³ /yr)	NA					
	Operation (hrs/yr)	2,600					
Reference ¹⁰	Potential Emissions ¹¹	lbs/hr	tons/yr	lbs/hr	tons/yr	lbs/hr	tons/yr
	NO _x	37.90	49.27				
	CO	8.47	11.01				
	VOC	0.74	0.96				
	SO ₂	NA	NA				
	PM ₁₀	1.21	1.57				
	Formaldehyde	NA	NA				

1. Enter the appropriate Source Identification Number for each reciprocating internal combustion compressor/generator engine located at the facility. Multiple compressor engines should be designated CE-1, CE-2, CE-3 etc. Emergency Generator engines should be designated EG-1, EG-2, EG-3 etc. If more than three (3) engines exist, please use additional sheets.

2. Enter the Source Status using the following codes:

- | | |
|--|----------------------|
| NS Construction of New Source (installation) | ES Existing Source |
| MS Modification of Existing Source | RS Removal of Source |

3. Enter the date (or anticipated date) of the engine's installation (construction of source), modification or removal.
4. Enter the date that the engine was manufactured, modified or reconstructed.
5. Is the engine a certified stationary compression ignition internal combustion engine according to 40CFR60 Subpart IIII. If so, the engine and control device must be operated and maintained in accordance with the manufacturer's emission-related written instructions. You must keep records of conducted maintenance to demonstrate compliance, but no performance testing is required. If the certified engine is not operated and maintained in accordance with the manufacturer's emission-related written instructions, the engine will be considered a non-certified engine and you must demonstrate compliance according to 40CFR§60.4210 as appropriate.

Provide a manufacturer's data sheet for all engines being registered.

6. Is the engine a certified stationary spark ignition internal combustion engine according to 40CFR60 Subpart JJJJ. If so, the engine and control device must be operated and maintained in accordance with the manufacturer's emission-related written instructions. You must keep records of conducted maintenance to demonstrate compliance, but no performance testing is required. If the certified engine is not operated and maintained in accordance with the manufacturer's emission-related written instructions, the engine will be considered a non-certified engine and you must demonstrate compliance according to 40CFR§60.4243a(2)(i) through (iii), as appropriate.

Provide a manufacturer's data sheet for all engines being registered.

7. Enter the Engine Type designation(s) using the following codes:

LB2S Lean Burn Two Stroke	RB4S Rich Burn Four Stroke
LB4S Lean Burn Four Stroke	

8. Enter the Air Pollution Control Device (APCD) type designation(s) using the following codes:

A/F Air/Fuel Ratio	IR Ignition Retard
HEIS High Energy Ignition System	SIPC Screw-in Precombustion Chambers
PSC Prestratified Charge	LEC Low Emission Combustion
NSCR Rich Burn & Non-Selective Catalytic Reduction	SCR Lean Burn & Selective Catalytic Reduction

9. Enter the Fuel Type using the following codes:

PQ Pipeline Quality Natural Gas	RG Raw Natural Gas
2FO #2 Fuel Oil	LPG Liquid Propane Gas

10. Enter the Potential Emissions Data Reference designation using the following codes. Attach all referenced data to this *Compressor/Generator Data Sheet(s)*.

MD Manufacturer's Data	AP AP-42	
GR GRI-HAPCalc™	OT Other _____	(please list)

11. Enter each engine's Potential to Emit (PTE) for the listed regulated pollutants in pounds per hour and tons per year. PTE shall be calculated at manufacturer's rated brake horsepower and may reflect reduction efficiencies of listed Air Pollution Control Devices. Emergency generator engines may use 500 hours of operation when calculating PTE. PTE data from this data sheet shall be incorporated in the *Emissions Summary Sheet*.

STORAGE TANK DATA SHEET

Source ID # ¹	Status ²	Content ³	Volume ⁴	Dia ⁵	Throughput ⁶	Orientation ⁷	Liquid Height ⁸
T01	EXIST	Diesel	10,000	18	90,000	HORZ	6
T02	EXIST	Diesel	10,000	18	90,000	HORZ	6
There are various engine oil, hydraulic oil, and used oil tanks on the property which are related to equipment maintenance and which are not listed here.							

1. Enter the appropriate Source Identification Numbers (Source ID #) for each storage tank located at the facility. Tanks should be designated T01, T02, T03, etc.
2. Enter storage tank Status using the following:

EXIST Existing Equipment	NEW Installation of New Equipment
REM Equipment Removed	
3. Enter storage tank content such as condensate, pipeline liquids, glycol (DEG or TEG), lube oil, etc.
4. Enter storage tank volume in gallons.
5. Enter storage tank diameter in feet.
6. Enter storage tank throughput in gallons per year.
7. Enter storage tank orientation using the following:

VERT Vertical Tank	HORZ Horizontal Tank
--------------------	----------------------
8. Enter storage tank average liquid height in feet.

ATTACHMENT H

AIR POLLUTION CONTROL DEVICE SHEETS

BAGHOUSE AIR POLLUTION CONTROL DEVICE SHEET

Complete a Baghouse Air Pollution Control Device Sheet for each baghouse control device.

1. Baghouse Control Device Identification Number: BH1
2. Manufacturer's name and model identification: Donaldson 108MBT8
3. Number of compartments in baghouse: 108
4. Number of compartments online during normal operation and conditions: 108
5. Gas flow rate into baghouse: 7,500 ACFM @ Ambient °F and -10" WC PSIA
6. Total cloth area: 1,383 ft²
7. Operating air to cloth ratio: 5.42 ft/min
8. Filter media type: Polyester
9. Stabilized static pressure drop across baghouse: 2 - 4 inches H₂O
10. Baghouse operation is:
 Continuous Automatic Intermittent
11. Method used to clean bags:
 Shaker Pulse jet Reverse jet Other
12. Emission rate of particulate matter entering and exiting baghouse at maximum design operating conditions:
Entering baghouse: 330 lb/hr and 5 grains/ACF
Exiting baghouse: 0.129 lb/hr and 0.002 grains/ACF
13. Guaranteed minimum baghouse collection efficiency: 99.9 %
14. Provide a written description of the capture system (e.g. hooding and ductwork arrangement), size of ductwork and hoods and air volume, capacity and operating horsepower of fan:
Capture system consists of (1) hood mounted to a screw conveyor tapering to a 16" duct; (2) 5" round pickup point on top of cage mill inlet chute; (3) 5" pickup point on bucket elevator; and (4) 7" round pickup point on top of the vibrating screen. All ducts are sized for 2,500 to 4,000 fpm transport velocity. The total system capacity is 7,500 fpm.
15. Describe the method of disposal for the collected material:
Collected material discharges through rotary air back into the product stream.

ATTACHMENT I
EMISSIONS CALCULATIONS

Aggregate Industries LLC
New Grizzly Feeder and Hopper

POTESTA & ASSOCIATES, INC.
Project No. 0101-16-0352

By: JJD

Checked By: ADM

Date: 11/28/2016

Date: 11/29/16

Facility PTE*

Pollutant	Uncontrolled		Controlled	
	lb/hr	tpy	lb/hr	tpy
PM	764.44	3,042.00	213.56	835.85
PM10	243.79	973.48	67.56	262.61
NOx	37.90	49.27	37.90	49.27
CO	8.47	11.01	8.47	11.01
VOC	0.74	0.96	0.74	0.96

* Includes diesel engine emissions for GEN-3 from Attachment G of permit application G40-C051A.

INPUTS

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

Name of applicant: Aggregate Industries LLC
 Name of plant: Mill Point Plant

1. CRUSHING AND SCREENING (including all primary and secondary crushers and screens)

1a. PRIMARY CRUSHING

Primary Crusher ID Number	Description	Maximum Material Processing Capacity		Control Device ID Number	Control Efficiency %
		TPH	TPY		
CR1	Cedar Rapids Jaw Crusher	600	5,256,000	PE/WS1	90

1d. SECONDARY AND TERTIARY CRUSHING

Secondary & Tertiary Crusher ID	Description	Maximum Material Processing Capacity		Control Device ID Number	Control Efficiency %
		TPH	TPY		
CR2	Telsmith Horizontal Impact Crusher	600	5,256,000	PE/WS8	90
CR3	ISC Vertical Impact Crusher	400	3,504,000	PE/WS17	90
LPCRT	Steadman Cage Mill Crusher	50	438,000	CS-BH	99

1c. SCREENING

Secondary & Tertiary Crusher ID	Description	Maximum Material Processing Capacity		Control Device ID Number	Control Efficiency %
		TPH	TPY		
S1	Cedar Rapids Triple Deck Screen	600	5,256,000	PE/WS1	90
S2	Cedar Rapids Triple Deck Screen	600	5,256,000	PE/WS8	90
S3	Cedar Rapids Triple Deck Screen	1,000	8,760,000	PE/WS16	90
LPVS1	Midwestern Double Deck Screen	50	438,000	CS-BH	99

2. TRANSFER POINTS (including all conveyor transfer points, equipment transfer points etc.)

k =	Particle Size Multiplier (dimensionless)	PM 0.74	PM-10 0.35
U =	Mean Wind Speed (mph)	7	

Transfer Point ID No.	Transfer Point Description Include ID Numbers of all conveyors, crushers, screens, stockpiles, etc. involved	Material Moisture Content %	Maximum Transfer Rate		Control Device ID Number	Control Efficiency %
			TPH	TPY		
TPA	Loader to Hopper/Grizzly Feeder	2	600	5,256,000	N	0
TP1	Grizzly Feeder to CR1 or BC1	2	600	5,256,000	WT1	90
TP2	CR1 to BC1	2	600	5,256,000	PE/WS1	90
TP3	BC1 to BC2	2	600	5,256,000	WS2	90
TP4	BC2 to S1	2	600	5,256,000	WS2	90
TP5	S1 to BC5 or BC15A	2	600	5,256,000	WS3/4	90
TP6	S1 to BC6	2	150	1,314,000	WS5	90
TP7	S1 to BC3	2	150	1,314,000	WS6	90
TP8	BC5 to OS-C	2	250	2,190,000	WS4	90
TP9	BC6 to OS-B	2	150	1,314,000	WS5	90
TP10	BC3 to BC4	2	150	1,314,000	WS6	90
TP11	BC4 to OS-A	2	150	1,314,000	WS6	90
TP12	BC7 to BS1	2	600	5,256,000	WS3	90
TP13	BS1 to BC8	2	600	5,256,000	WS3	90
TP14	BC8 to CR2	2	600	5,256,000	WS7	90
TP15	CR2 to BC9	2	600	5,256,000	PE/WS8	90
TP16	BC9 to S2	2	600	5,256,000	WS8	90
TP17	S1 to BC15	2	600	5,256,000	WS15	90
TP18	S2 to BC14	2	200	1,752,000	WS10	90
TP19	S2 to BC13	2	200	1,752,000	WS11	90
TP20	S2 to BC10	2	200	1,752,000	WS12	90
TP21	S2 to BC15A	2	400	3,504,000	WS8	90
TP22	BC14 to OS-G	2	200	1,752,000	WS10	90
TP23	BC13 to OS-F	2	200	1,752,000	WS11	90
TP24	BC10 to BC11 or BC15	2	200	1,752,000	WS13	90
TP25	BC11 to BC12	2	200	1,752,000	WS14	90
TP26	BC12 to OS-E	2	200	1,752,000	WS14	90
TP27	BC15 to BC16	2	1,000	8,760,000	WS16	90
TP28	BC16 to S3	2	1,000	8,760,000	WS16	90
TP29	S3 to BC17	2	400	3,504,000	WS16	90
TP30	S3 to BC20	2	300	2,628,000	WS19	90
TP31	S3 to BC21	2	200	1,752,000	WS20	90
TP32	S3 to BC22	2	200	1,752,000	WS21	90
TP33	BC17 to BC18	2	400	3,504,000	WS16	90
TP34	BC15A and BC18 to CR3	2	400	3,504,000	WS17	90
TP35	CR3 to BC19	2	400	3,504,000	PE/WS18	90
TP36	BC20 to OS-J	2	300	2,628,000	WS19	90
TP37	BC21 to OS-I	2	200	1,752,000	WS20	90
TP38	BC22 to BC23	2	500	4,380,000	WS22	90
TP39	BC23 to OS-H	2	500	4,380,000	WS22	90
TP40	Front End Loader to LPBin1	1	50	438,000	UD-FE	80
TP41	Front End Loader to LPBin2	1	50	438,000	UD-FE	80
TP42	LPBin1 to LPBC1	1	50	438,000	UD-FE	80
TP43	LPBin2 to LPBC2	1	50	438,000	UD-FE	80
TP44	LPBC1 to LPBC3	1	50	438,000	WS23	90
TP45	LPBC2 to LPBC3	1	50	438,000	WS24	90
TP46	LPBC3 to LPCR1	1	50	438,000	CS-BH	99
TP47	LPCR1 to LPSC1	1	50	438,000	CS-BH	99
TP48	LPSC1 to LPBE1	1	50	438,000	CS-BH	99
TP49	LPBE1 to LPVS1	1	50	438,000	TC-BH	99
TP50	LPVS1 to LPSC2	1	50	438,000	CS-BH	99
TP51	LPSC2 to Building	1	50	438,000	SL-FE	80
TP52	Loader to Satellite Stockpile Areas	2	600	1,314,000	N	0
TP53	Loader to Truck	2	600	5,256,000	N	0
TP54	Lime Plant Loadout	1	50	438,000	N	0

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-A	OS-A	3	11,236	N	0
OS-B, C, D	OS-B, OS-C, OS-D	1	33,708	N	0
OS-E	OS-E	4	11,236	N	0
OS-F, G	OS-F, OS-G	1	22,472	N	0
OS-H	OS-H	10	11,236	N	0
OS-I, J	OS-I, OS-J	1	22,472	N	0
OS-K	OS-K	10	117,613	N	0
OS-L	OS-L	10	34,848	N	0
OS-M	OS-M	10	21,780	N	0
OS-N	OS-N	10	65,340	N	0
OS-O	OS-O	10	47,916	N	0
OS-P, Q	OS-P, Q	10	89,298	N	0
FES-A	Lime	0.1	6,000	SL-FE	80

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

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	Stone to Plant	6	116	15	0.25	12	#####	WT1	70
2	Stock Trucks	6	116	15	1.21	4	15,040	WT1	70
3	Front End Loaders	4	62	15	1	1	8,760	WT1	70
4	Trucking Stone Off-Site	10	25	15	1.21	32	#####	WT1	70
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							

EMISSIONS SUMMARY

Name of applicant: Aggregate Industries LLC
 Name of plant: Mill Point Plant

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>	5.17	22.63	5.17	22.63
<i>Unpaved Haulroad Emissions</i>	625.58	2,444.73	187.67	733.42
<i>Paved Haulroad Emissions</i>	0.00	0.00	0.00	0.00
Fugitive Emissions Total	630.74	2,467.36	192.84	756.04

POINT SOURCE EMISSIONS				
<i>Equipment Emissions</i>	63.12	276.47	6.18	27.05
<i>Transfer Point Emissions</i>	69.37	296.61	13.34	51.19
Point Source Emissions Total*	132.49	573.07	19.51	78.24

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

Facility Emissions Total	763.23	3,040.43	212.35	834.28
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***Facility Potential to Emit (PTE) (Baseline Emissions) = 78.24**
 (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>	2.43	10.63	2.43	10.63
<i>Unpaved Haulroad Emissions</i>	184.65	721.59	55.39	216.48
<i>Paved Haulroad Emissions</i>	0.00	0.00	0.00	0.00
Fugitive Emissions Total	187.07	732.22	57.82	227.11

POINT SOURCE EMISSIONS				
<i>Equipment Emissions</i>	22.70	99.40	2.22	9.72
<i>Transfer Point Emissions</i>	32.81	140.29	6.31	24.21
Point Source Emissions Total*	55.50	239.69	8.53	33.93

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

Facility Emissions Total	242.58	971.91	66.35	261.04
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1. Emissions From CRUSHING AND SCREENING

1a. Primary Crushing

Primary Crusher ID Number	PM				PM-10			
	Uncontrolled		Controlled		Uncontrolled		Controlled	
	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
CR1	1.200	5.256	0.120	0.526	0.600	2.628	0.060	0.263
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
TOTAL	1.200	5.256	0.120	0.526	0.600	2.628	0.060	0.263

1b. Secondary and Tertiary Crushing

Secondary & Tertiary Crusher ID	PM				PM-10			
	Uncontrolled		Controlled		Uncontrolled		Controlled	
	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
CR2	3.240	14.191	0.324	1.419	1.440	6.307	0.144	0.631
CR3	2.160	9.461	0.216	0.946	0.960	4.205	0.096	0.420
LPCR1	0.270	1.183	0.003	0.012	0.120	0.526	0.001	0.005
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
TOTAL	5.670	24.835	0.543	2.377	2.520	11.038	0.241	1.056

1c. Screening

Screen ID Number	PM				PM-10			
	Uncontrolled		Controlled		Uncontrolled		Controlled	
	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
S1	15.000	65.700	1.500	6.570	5.220	22.864	0.522	2.286
S2	15.000	65.700	1.500	6.570	5.220	22.864	0.522	2.286
S3	25.000	109.500	2.500	10.950	8.700	38.106	0.870	3.811
LPVS1	1.250	5.475	0.013	0.055	0.435	1.905	0.004	0.019
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
TOTAL	56.250	246.375	5.513	24.145	19.575	85.739	1.918	8.402

Crushing and Screening	PM				PM-10			
	Uncontrolled		Controlled		Uncontrolled		Controlled	
	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
TOTAL	63.120	276.466	6.175	27.047	22.695	99.404	2.220	9.722

1. Emissions From CRUSHING AND SCREENING (Continued)

EMISSION FACTORS

source: AP42, Fifth Edition, Revised 08/2004
(lb/ton of material throughput)

PM	
Primary Crushing	0.002
Tertiary Crushing	0.0054
Screening	0.025

PM-10	
Primary Crushing	0.001
Tertiary Crushing	0.0024
Screening	0.0087

2. Emissions From TRANSFER POINTS

Transfer Point ID No.	PM				PM-10			
	Uncontrolled		Controlled		Uncontrolled		Controlled	
	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
TPA	2.200	9.638	2.200	9.638	1.041	4.558	1.041	4.558
TP1	2.200	9.638	0.220	0.964	1.041	4.558	0.104	0.456
TP2	2.200	9.638	0.220	0.964	1.041	4.558	0.104	0.456
TP3	2.200	9.638	0.220	0.964	1.041	4.558	0.104	0.456
TP4	2.200	9.638	0.220	0.964	1.041	4.558	0.104	0.456
TP5	2.200	9.638	0.220	0.964	1.041	4.558	0.104	0.456
TP6	0.550	2.409	0.055	0.241	0.260	1.140	0.026	0.114
TP7	0.550	2.409	0.055	0.241	0.260	1.140	0.026	0.114
TP8	0.917	4.016	0.092	0.402	0.434	1.899	0.043	0.190
TP9	0.550	2.409	0.055	0.241	0.260	1.140	0.026	0.114
TP10	0.550	2.409	0.055	0.241	0.260	1.140	0.026	0.114
TP11	0.550	2.409	0.055	0.241	0.260	1.140	0.026	0.114
TP12	2.200	9.638	0.220	0.964	1.041	4.558	0.104	0.456
TP13	2.200	9.638	0.220	0.964	1.041	4.558	0.104	0.456
TP14	2.200	9.638	0.220	0.964	1.041	4.558	0.104	0.456
TP15	2.200	9.638	0.220	0.964	1.041	4.558	0.104	0.456
TP16	2.200	9.638	0.220	0.964	1.041	4.558	0.104	0.456
TP17	2.200	9.638	0.220	0.964	1.041	4.558	0.104	0.456
TP18	0.733	3.213	0.073	0.321	0.347	1.519	0.035	0.152
TP19	0.733	3.213	0.073	0.321	0.347	1.519	0.035	0.152
TP20	0.733	3.213	0.073	0.321	0.347	1.519	0.035	0.152
TP21	1.467	6.425	0.147	0.643	0.694	3.039	0.069	0.304
TP22	0.733	3.213	0.073	0.321	0.347	1.519	0.035	0.152
TP23	0.733	3.213	0.073	0.321	0.347	1.519	0.035	0.152
TP24	0.733	3.213	0.073	0.321	0.347	1.519	0.035	0.152
TP25	0.733	3.213	0.073	0.321	0.347	1.519	0.035	0.152
TP26	0.733	3.213	0.073	0.321	0.347	1.519	0.035	0.152
TP27	3.667	16.063	0.367	1.606	1.735	7.597	0.173	0.760
TP28	3.667	16.063	0.367	1.606	1.735	7.597	0.173	0.760
TP29	1.467	6.425	0.147	0.643	0.694	3.039	0.069	0.304
TP30	1.100	4.819	0.110	0.482	0.520	2.279	0.052	0.228
TP31	0.733	3.213	0.073	0.321	0.347	1.519	0.035	0.152
TP32	0.733	3.213	0.073	0.321	0.347	1.519	0.035	0.152
TP33	1.467	6.425	0.147	0.643	0.694	3.039	0.069	0.304
TP34	1.467	6.425	0.147	0.643	0.694	3.039	0.069	0.304
TP35	1.467	6.425	0.147	0.643	0.694	3.039	0.069	0.304
TP36	1.100	4.819	0.110	0.482	0.520	2.279	0.052	0.228
TP37	0.733	3.213	0.073	0.321	0.347	1.519	0.035	0.152
TP38	1.834	8.031	0.183	0.803	0.867	3.799	0.087	0.380
TP39	1.834	8.031	0.183	0.803	0.867	3.799	0.087	0.380
TP40	0.484	2.120	0.097	0.424	0.229	1.002	0.046	0.200
TP41	0.484	2.120	0.097	0.424	0.229	1.002	0.046	0.200
TP42	0.484	2.120	0.097	0.424	0.229	1.002	0.046	0.200
TP43	0.484	2.120	0.097	0.424	0.229	1.002	0.046	0.200
TP44	0.484	2.120	0.048	0.212	0.229	1.002	0.023	0.100
TP45	0.484	2.120	0.048	0.212	0.229	1.002	0.023	0.100
TP46	0.484	2.120	0.005	0.021	0.229	1.002	0.002	0.010
TP47	0.484	2.120	0.005	0.021	0.229	1.002	0.002	0.010
TP48	0.484	2.120	0.005	0.021	0.229	1.002	0.002	0.010
TP49	0.484	2.120	0.005	0.021	0.229	1.002	0.002	0.010
TP50	0.484	2.120	0.005	0.021	0.229	1.002	0.002	0.010
TP51	0.484	2.120	0.097	0.424	0.229	1.002	0.046	0.200

2. Emissions From TRANSFER POINTS (continued)

Transfer Point ID No.	PM				PM-10			
	Uncontrolled		Controlled		Uncontrolled		Controlled	
	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
TP52	2.200	2.409	2.200	2.409	1.041	1.140	1.041	1.140
TP53	2.200	9.638	2.200	9.638	1.041	4.558	1.041	4.558
TP54	0.484	2.120	0.484	2.120	0.229	1.002	0.229	1.002
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
TOTALS	69.369	296.606	13.338	51.190	32.809	140.287	6.308	24.212

Source:

AP42, Fifth Edition, Revised 11/2006
13.2.4 Aggregate Handling and Storage Piles

Emissions From Batch Drop

$$E = k \cdot (0.0032) \cdot [(U/5)^{1.3}] / [(M/2)^{1.4}] = \text{pounds/ton}$$

Where:

		PM	PM-10
k =	Particle Size Multiplier (dimensionless)	0.74	0.35
U =	Mean Wind Speed (mph)		
M =	Material Moisture Content (%)		

Assumptions:

k - Particle size multiplier

For PM (< or equal to 30um) k = 0.74

For PM-10 (< or equal to 10um) k = 0.35

Emission Factor

For PM $E = \frac{0.0032 \cdot (U/5)^{1.3}}{(M/2)^{1.4}}$ = lb/ton

For PM-10 $E = \frac{0.0032 \cdot (U/5)^{1.3}}{(M/2)^{1.4}}$ = lb/ton

For lb/hr $[\text{lb/ton}] \cdot [\text{ton/hr}] = [\text{lb/hr}]$

For Tons/year $[\text{lb/ton}] \cdot [\text{ton/yr}] \cdot [\text{ton}/2000\text{lb}] = [\text{ton/yr}]$

3. Emissions From WIND EROSION OF STOCKPILES

Stockpile ID No.	PM				PM-10			
	Uncontrolled		Controlled		Uncontrolled		Controlled	
	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
OS-A	0.043	0.189	0.043	0.189	0.020	0.089	0.020	0.089
OS-B, C, I	0.043	0.189	0.043	0.189	0.020	0.089	0.020	0.089
OS-E	0.057	0.252	0.057	0.252	0.027	0.118	0.027	0.118
OS-F, G	0.029	0.126	0.029	0.126	0.014	0.059	0.014	0.059
OS-H	0.144	0.630	0.144	0.630	0.068	0.296	0.068	0.296
OS-I, J	0.029	0.126	0.029	0.126	0.014	0.059	0.014	0.059
OS-K	1.505	6.591	1.505	6.591	0.707	3.098	0.707	3.098
OS-L	0.446	1.953	0.446	1.953	0.210	0.918	0.210	0.918
OS-M	0.279	1.220	0.279	1.220	0.131	0.574	0.131	0.574
OS-N	0.836	3.661	0.836	3.661	0.393	1.721	0.393	1.721
OS-O	0.613	2.685	0.613	2.685	0.288	1.262	0.288	1.262
OS-P, Q	1.142	5.004	1.142	5.004	0.537	2.352	0.537	2.352
TOTALS	5.166	22.625	5.166	22.625	2.428	10.634	2.428	10.634

Source:

Air Pollution Engineering Manual

Storage Pile Wind Erosion (Active Storage)

$$E = 1.7 * [s/1.5] * [(365-p)/235] * [f/15] = (\text{lb/day/acre})$$

Where:

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

Emission Factors

For PM $E = (1.7) * ((\text{Inputs!F147})/1.5) * ((365 - \text{Inputs!I139})/235) * ((\text{Inputs!I140})/15)$

For PM-10 $E = 0.47 * (1.7) * ((\text{Inputs!F147})/1.5) * ((365 - \text{Inputs!I139})/235) * ((\text{Inputs!I140})/15)$

For lb/hr $[\text{lb/day/acre}] * [\text{day}/24\text{hr}] * [\text{base area of pile (acres)}] = \text{lb/hr}$

For Ton/yr $[\text{lb/day/acre}] * [365\text{day/yr}] * [\text{Ton}/2000\text{lb}] * [\text{base area of pile (acres)}] = \text{Ton/yr}$

4. Emissions From UNPAVED HAULROADS

Item No.	PM				PM-10			
	Uncontrolled		Controlled		Uncontrolled		Controlled	
	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
1	67.02	293.54	20.11	88.06	19.78	86.64	5.93	25.99
2	108.12	203.27	32.44	60.98	31.91	60.00	9.57	18.00
3	16.85	73.81	5.06	22.14	4.97	21.79	1.49	6.54
4	433.58	1874.11	130.08	562.23	127.98	553.16	38.39	165.95
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTALS	625.58	2444.73	187.67	733.42	184.65	721.59	55.39	216.48

Source:

AP42, Fifth Edition, Revised 11/2006

13.2.2 Unpaved Roads

Emission Estimate For Unpaved Haulroads at Industrial Sites (equation 1)

$$E = k \cdot (s/12)^a \cdot (W/3)^b = \text{lb/vmt}$$

Where:

		PM	PM-10
k =	particle size multiplier	4.90	1.50
a =	empirical constant	0.7	0.9
b =	empirical constant	0.45	0.45

Emission Factors

For PM $E = ((\$35) \cdot (((\text{Inputs!}\$163)/12)^{\$36})) \cdot (((\text{Inputs!}H171)/3)^{\$37})$

For PM-10 $E = ((\$J35) \cdot (((\text{Inputs!}\$163)/12)^{\$J36})) \cdot (((\text{Inputs!}H171)/3)^{\$J37})$

For lb/hr $(\text{lb/vmt}) \cdot (\text{miles per trip}) \cdot (\text{Max trips per hour})$

For Ton/yr $(\text{lb/vmt}) \cdot (\text{miles per trip}) \cdot (\text{Max trips per year}) \cdot (1/2000)$

5. Emissions From INDUSTRIAL PAVED HAULROADS

Item No.	PM				PM-10			
	Uncontrolled		Controlled		Uncontrolled		Controlled	
	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTALS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Source:

AP42, Fifth Edition, Revised 11/2006
13.2.1 PAVED ROADS

Emission Estimate For Paved Haulroads

$$E = [k * (sL/2)^{0.65} * (W/3)^{1.5} - C] * (1 - (P/4 * N)) = \text{lb} / \text{Vehicle Mile Traveled (VMT)}$$

Where:

		PM	PM-10
k =	particle size multiplier	0.082	0.016
sL =	road surface silt loading, (g/ft ²)	70	
P =	number of days per year with precipitation >0.01 inch	157	
N =	number of days in averaging period	365	
C =	factor for exhaust, brake wear and tire wear	0.00047	0.00047

Emission Factors

For PM E= $(k * ((sL/2)^{0.65} * ((Inputs!G190)/3)^{1.5} - C)) * (1 - ((Inputs!P157)/(4 * Inputs!N365)))$

For PM-10 E= $(k * ((sL/2)^{0.65} * ((Inputs!G190)/3)^{1.5} - C)) * (1 - ((Inputs!P157)/(4 * Inputs!N365)))$

For lb/hr (lb/vmt)*(miles per trip)*(Max trips per hour)

For Ton/yr (lb/vmt)*(miles per trip)*(Max trips per year)*(1/2000)

ATTACHMENT J
CLASS I LEGAL ADVERTISEMENT

ATTACHMENT J

AIR QUALITY PERMIT NOTICE

Notice of Application

Notice is given that Appalachian Aggregates, LLC has applied to the West Virginia Department of Environmental Protection, Division of Air Quality for a Modification to General Permit Registration G40-C051A for Mill Point Quarry to install a new grizzly feeder and hopper. The facility is located off of WV-55 E near Hillsboro in Pocahontas County, West Virginia. The latitude and longitude coordinates are: 38.162674, -80.180870.

The applicant re-calculated facility emissions and estimate the new potential to emit will be: PM of 834.27 tons per year (tpy); PM10 of 261.87 tpy; NOx of 49.27 tpy; CO of 11.01 tpy; and VOC of 0.96 tpy.

The new grizzly feeder and hopper are anticipated to be installed on the 11th 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 **(Insert Date)** day of December, 2016.

By: Appalachian Aggregates, LLC
John Wilkinson
Vice President
21071 Midland Trail
Lewisburg, West Virginia 24901

ATTACHMENT K
ELECTRONIC SUBMITTAL

ATTACHMENT L

GENERAL PERMIT REGISTRATION APPLICATION FEE

General Permit Levels Construction, Modification, Relocation, Administrative Update

Class II General Permits – G10-D (Coal Preparation and Handling), G20-B (Hot Mix Asphalt), G30-D (Natural Gas Compressor Stations), G35-A (Natural Gas Compressor Stations with Flares/Glycol Dehydration Units), G40-C (Nonmetallic Minerals Processing), G50-B (Concrete Batch Plant), G60-C (Emergency Generators)

Class I General Permit – G33-A (Spark Ignition Internal Combustion Engines 25 HP-500 HP), G65-C (Emergency Generators)

General Permit	Public Notice	Review Period as per 45CSR13	Application Fee	Criteria	Application Type
Class II General Permit (Construction)	30 days (applicant)	45 days	\$500 + applicable NSPS fees	6 lb/hr and 10 tpy of any regulated air pollutant OR 144 lb/day of any regulated air pollutant, OR 2 lb/hr of any hazardous air pollutant OR 5 tpy of aggregated HAP OR 45CSR27 TAP (10% increase if above BAT triggers or increase to BAT triggers) or subject to applicable standard or rule, but subject to specific eligibility requirements	Registration Application
Class II General Permit (Modification)	30 days (applicant)	45 days	\$500 + applicable NSPS fees	Same as Class II General Permit (Construction) but subject to specific eligibility requirements	Registration Application
Administrative Update (Class I)	None	60 days	None	Decrease in emissions or permanent removal of equipment OR more stringent requirements or change in MRR that is equivalent or superior	Registration Application or Written Request
Administrative Update (Class II)	30 days (applicant)	60 days	\$300 + applicable NSPS fees	No change in emissions or an increase less than Class II Modification levels	Registration Application
Relocation	30 days (applicant)	45 days	\$500 + applicable NSPS fees	No emissions increase or change in facility design or equipment	Registration Application
Class I General Permit	None	45 days	\$250	Same as Class II General Permit (Construction) but subject to specific eligibility requirements	Registration Application

ATTACHMENT O
EMISSIONS SUMMARY SHEETS

EMISSION SUMMARY SHEET FOR CRITERIA POLLUTANTS

		Registration Number <small>(Agency Use)</small> G40-C													
Source ID No.	Potential Emissions (lbs/hr)										Potential Emissions (tons/yr)				
	NO _x	CO	VOC	SO ₂	PM ₁₀	NO _x	CO	VOC	SO ₂	PM ₁₀	NO _x	CO	VOC	SO ₂	PM ₁₀
Transfer Points					6.31										24.21
Crushing					0.30										1.32
Screening					1.92										8.40
Stockpiles					2.43										10.63
Haul Roads					55.39										216.48
Diesel Engine	37.90	8.47	0.74	NA	1.21	49.27	11.01	0.96	NA	1.57					
Total	37.90	8.47	0.74		67.56	49.27	11.01	0.96		67.56	49.27	11.01	0.96		262.61

