

Fairfax Materials, Inc.
Ours Quarry Air Quality Modification
Permit # G40-A0001 Facility ID#023-00034
July 13, 2015



Table of Contents

Application for General Permit Registration	1-5
Attachment A – Current Business Certificate	6
Attachment B – Process Description	7-8
Attachment C – Description of Fugitive Emissions	9
Attachment D – Process Flow Diagram	10
Attachment E – Plot Plan	11
Attachment F – Area Map	12
Attachment G – Equipment Data Sheets and Registration Section Applicability Form	13-18
Attachment H – Air Pollution Control Device Sheets	19
Attachment I – Emissions Calculations	20-30
Attachment J – Class I Legal Advertisement	31
Attachment N – Material Safety Data Sheets	32-35
Attachment O – Emissions Summary Sheets	36-38

Fairfax Materials
~~Attner~~ Ours Quarry
023 00034
G40-C001A
Lee Martin

	<p>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</p>	<p>APPLICATION FOR GENERAL PERMIT REGISTRATION CONSTRUCT, MODIFY, RELOCATE OR ADMINISTRATIVELY UPDATE A STATIONARY SOURCE OF AIR POLLUTANTS</p>
<input type="checkbox"/> CONSTRUCTION	<input checked="" type="checkbox"/> MODIFICATION	<input type="checkbox"/> RELOCATION
<input type="checkbox"/> CLASS I ADMINISTRATIVE UPDATE		<input type="checkbox"/> 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
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SECTION I. GENERAL INFORMATION

1. Name of applicant (as registered with the WV Secretary of State's Office): Fairfax Materials, Inc.	2. Federal Employer ID No. (FEIN): 55-0167100
3. Applicant's mailing address: P.O. Box 850 Laurel, MD 20725	4. Applicant's physical address: 1996 Morgantown Rd. Petersburg, WV 26847
5. If applicant is a subsidiary corporation, please provide the name of parent corporation: Fairfax Holding Company	
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 checked="" 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.): Rice Screen	8a. Standard Industrial Classification AND 8b. North American Industry System (NAICS) code: Classification (SIC) code: 1422 System (NAICS) code: 212912
9. DAQ Plant ID No. (for existing facilities only): 023-00034	10. List all current 45CSR13 and other General Permit numbers associated with this process (for existing facilities only): G40-A0001

A: PRIMARY OPERATING SITE INFORMATION

11A. Facility name of primary operating site: Ours Quarry	12A. Address of primary operating site: Mailing: P.O. Box 550 Laurel, MD 20785 Physical: 1898 Morgantown Road Petersburg, WV 26047	
13A. Does the applicant own, lease, have an option to buy, or otherwise have control of the proposed site? ✓ YES 9 NO ✓ IF YES, please explain: Owner of Property <hr/> - 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. On WV 517 (Morgantown Road), three miles East of Arthur, WV. <hr/>		
15A. Nearest city or town: Arthur, WV	16A. County: Grant	17A. UTM Coordinates: Northing (KM): 963,029 Easting (KM): 4,329,704 Zone: 17
18A. Briefly describe the proposed new operation or change (s) to the facility: Addition of one 6' x 12' Deister High Frequency Screen and related load out silo.		19A. Latitude & Longitude Coordinates (NAD83, Decimal Degrees to 5 digits): Latitude: 39.09176° N Longitude: 79.05729° W

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

11B. Name of 1st alternate operating site: N/A	12B. Address of 1st alternate operating site: Mailing: _____ Physical: _____ <hr/>	
13B. Does the applicant own, lease, have an option to buy, or otherwise have control of the proposed site? 9 YES 9 NO - IF YES, please explain: _____ <hr/> - 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: _____
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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: _____
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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: _____
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13C. Does the applicant own, lease, have an option to buy, or otherwise have control of the proposed site? **9 YES 9 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: _____
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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: _____
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<p>20. Provide the date of anticipated installation or change:</p> <p>08/15/2015</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>____/____/____</p>	<p>21. Date of anticipated Start-up if registration is granted:</p> <p>09/01/2015</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: 15.7 Days per week: 7 Weeks per year: 35 Hours per year: 3,840 Percentage of operation: 100%</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"> ✓ 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 - N/A ✓ ATTACHMENT L: GENERAL PERMIT REGISTRATION APPLICATION FEE ✗ ATTACHMENT M: SITING CRITERIA WAIVER – N/A ✓ ATTACHMENT N: MATERIAL SAFETY DATA SHEETS (MSDS) ✓ ATTACHMENT O: EMISSIONS SUMMARY SHEETS ✗ OTHER SUPPORTING DOCUMENTATION NOT DESCRIBED ABOVE (Equipment Drawings, Aggregation Discussion, etc.) – N/A
<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) Ronald A. Matovcik 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  July 02, 2015
(please use blue ink) Responsible Official Date

Name & Title: Ronald A. Matovcik, President
(please print or type)

Signature _____
(please use blue ink) Authorized Representative (if applicable) Date

Applicant's Name: Fairfax Materials, Inc.

Phone & Fax: 410-792-7234 301-470-4076
Phone Fax

Email: Collin@aggmt.com

State of West Virginia



Certificate

I, Ken Hechler, Secretary of State of the State of West Virginia, hereby certify that originals of the Articles of Amendment to the Articles of Incorporation of

FAIRFAX SAND AND CRUSHED STONE, INC.

are filed in my office, signed and verified, as required by the provisions of Chapter 31, Article 1, Section 31 of the West Virginia Code and conform to law. Therefore, I issue this

CERTIFICATE OF AMENDMENT TO THE ARTICLES OF INCORPORATION

changing the name of the corporation to

FAIRFAX MATERIALS, INC.

and I attach to this certificate a duplicate original of the Articles of Amendment.



Given under my hand and the Great Seal of the State of West Virginia on this Twenty-Second day of December 19 99

Ken Hechler

Secretary of State

Attachment B

Fairfax Materials – Ours Quarry Process Description July 13, 2015

The stone processing facility as outlined on attached drawings SSE-421-1 and “Ours Quarry Flow” is designed to process minus 24” limestone into a number of minus 1-1/2” finished aggregate products for road base, concrete, and asphalt construction. The following listing summarizes the steps involved in this process and includes a brief description of the dust collection/suppression system incorporated which will minimize dust emission:

1. Minus 24” limestone will be fed via off-road trucks into a 75 ton rock box dump hopper (1).
2. Material will be retrieved from this hopper at a rate of up to 700 TPH utilizing a Simplicity 51” X 20’ vibrating feeder (2).
3. The Simplicity vibrating feeder will discharge onto a 5’ X 12’ double deck Simplicity scalping screen (3) which will remove minus 1-1/2” natural fines, separate a minus 4” X 1-1/2” mid size product for crusher bypass, and feed plus 4” rock into a Hazemag horizontal shaft impactor (4).
4. Minus 1-1/2” X 0 natural fines will be conveyed via transfer conveyors (7 & 8) and a stacking conveyor (9) to a 20,000 ton product stockpile (39A). This material will then be loaded to customer’s trucks via a front-end loader.
5. The primary crushed rock will be combined with the minus 4” X 1-1/2” bypass rock onto transfer conveyors (10 & 11) which will feed two 6’ X 20’ four deck Simplicity sizing screens (12 & 13).
6. The sizing screens will grade the materials into four finished aggregate products ranging from minus 1” X 0” and will scalp off a plus 1” material which will be transferred to a surge bin (16) via belt conveyors (14 & 15).
7. Material will be retrieved from the surge bin at a controlled rate utilizing a Syntron feeder (17) and fed into a 96” CEMCO vertical shaft impact crusher (18). The crusher will discharge back onto transfer conveyor (11) which will close the crushing circuit.
8. Finished products will be transferred via belt conveyors (19) through (24) into three of the 100-ton product loadout bins (27).

9. The bottom end of the screened material ranging from ¼" X 0" will be conveyed via transfer conveyors (25 & 26) to a 6' x 12' S.D. Deister High Frequency Screen (30). The screen will separate plus 1/8" material and minus 1/8" material and transfer them to the remaining two product loadout bins (27)
10. Finished products held in the transfer bins can either be loaded directly into a truck or transferred via blending feeders (28) and a transfer conveyor (29) to be mixed in with the natural fines being conveyed to the product stockpile (39A). Again, the material will be retrieved from this stockpile via front-end loader and loaded directly to customer's trucks.
11. A dry collection system incorporating a 40,000 cfm dust collector (31), is installed which provides dry emissions control through the closed circuit crushing portion of the plant. Throughout this dry collection system, all conveyors will be covered, transfer points will be enclosed, and pick up hoods will be installed at all emission points. This will allow the aggregate to remain dry through the crushing and screening process which will allow the screens to prepare a clean, well graded, coating free material. These dry collection points are shown and listed as D.P. points on Drawing SSE-421-1.
12. A wet suppression system is incorporated after the crushing and screening process is concluded. Wetting sprays will be applied one time to all coarse aggregates and at each transfer point for any conveyors or equipment items that will be carrying fines. These wet suppression points are shown and listed as S.B. points on Drawing SSE-421-1.

Attachment C – Description of Fugitive Emissions

The sources of fugitive emissions are product stockpiles, haul roads and vehicle traffic. The fugitive emissions from road surfaces will be controlled by a water truck. The truck is fitted with pump and spray nozzles.

The stockpiles can be sprayed with the nozzles on the water truck. In addition, there is a fire hose that can be used to spray the stockpiles.

The application rate can be varied by adjusting the nozzles and the fire hose. The rate depends on weather conditions. Enough water is applied to control the dust but it is important not to apply excess water that would cause mud to be tracked.

The water conduits and sprayers will be drained each evening when there is a need due to freezing weather. Road surfaces are made of crushed stone. Another method to control road dust is to limit the speed of traffic.

This document was too large to scan. If interested in viewing please contact: depfoia@wv.gov or

West Virginia Department of Environmental Protection Public Information Office

FOIA Request

601 57th St. S.E.

Charleston, WV 25304.

The fax number is 304-926-0447.

Thank you.



west virginia department of environmental protection

Attachment G – Equipment Data Sheets

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 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		CR-1 (4)	CR-2 (18)	S-1 (3)	S-2 (12)	S-3 (13)	S-4 (32)
Type of Crusher or Screen ²		OT - HSI	OT - VSI	DD	4D	4D	SD
Make, Model No., Serial No. ³		Hazemag APPH- 1315-Q	Cemco 96"	5'x12' Simplicity H.D. Scalper	6'x20' Simplicity Inclined Screen	6'x20' Simplicity Inclined Screen	6'x12' Deister High Frequency
Date of Construction, Reconstruction, or Modification (Month/Year) ⁴		08/2000	08/2000	08/2000	08/2000	08/2000	08/2015
Maximum Throughput ⁵	tons/hour	400	400	700	500	500	300
	tons/year	1,536,000	1,536,000	2,688,000	1,920,000	1,920,000	1,152,000
Material sized from/to: ⁶		-4" / +1 1/2"	-4" / +1"	-24" / +4" -4" / +1 1/2"	-4" / +1" +1" / +1 1/2" - 1 1/2" / + 5/16" - 5/16" / + 1/4"	-4" / +1" +1" / +1 1/2" - 1 1/2" / + 5/16" - 5/16" / + 1/4"	- 1 1/4" / + 1 1/8"
Average Moisture Content (%) ⁷		2%	2%	4%	2%	2%	4%
Control Device ID Number ⁸		TC-BH1 & CS-PW1 (CD-1 & 10)	CS-BH4 (CD-3)	CS-PW1 (CD-10)	CS-BH1 (CD-8)	CS-BH1 (CD-8)	CS-PW2/3 (CD-20/21)
Baghouse Stack Parameters ⁹	height (ft)						
	diameter (ft)						
	volume (ACFM)						
	exit temp (F)						
	UTM Coordinates	688,040E 4,328,668N	688,040E 4,328,668N	688,040E 4,328,668N	688,040E 4,328,668N	688,040E 4,328,668N	688,040E 4,328,668N
Maximum Operating Schedule ¹⁰	hours/day	15.7	15.7	15.7	15.7	15.7	15.7
	days/year	245	245	245	245	245	245
	hours/year	3,840	3,840	3,840	3,840	3,840	3,840

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" / -3/4").
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.

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		
BC-1A (7)	2000	SA	-1 $\frac{1}{2}$ " / + 0"	400	1,536,000	4%	TC-PW1 (CD-11)
BC-1 (8)	2000	SA	-1 $\frac{1}{2}$ " / + 0"	400	1,536,000	4%	TC-PW2 (CD-13)
BC-2 (9)	2000	SA	-1 $\frac{1}{2}$ " / + 0"	400	1,536,000	4%	TC-PW3/9 (CD-14/12)
BC-3 (10)	2000	SA	-4" / +1 $\frac{1}{2}$ "	700	2,688,000	2%	TC-BH1 (CD-1)
BC-4 (11)	2000	SA	-4" / + 0"	1,000	3,840,000	2%	TC-BH2/4 (CD-2/4)
BC-5 (14)	2000	SA	-4" / +1"	400	1,536,000	2%	CS-BH2/3 (CD-6/7)
BC-6 (15)	2000	SA	-4" / +1"	400	1,536,000	2%	TC-BH3 (CD-5)
BC-7 (19)	2000	SA	-1" / + $\frac{1}{2}$ "	300	1,152,000	4%	CS-BH2/3 (CD-6/7)
BC-8 (20)	2000	SA	-1" / + $\frac{1}{2}$ "	300	1,152,000	4%	TC-PW4 (CD-15)
BC-9 (21)	2000	SA	- $\frac{1}{2}$ " / + $\frac{1}{4}$ "	300	1,152,000	4%	CS-BH2/3 (CD-6/7)
BC-10 (22)	2000	SA	- $\frac{1}{2}$ " / + $\frac{1}{4}$ "	300	1,152,000	4%	TC-PW5 (CD-16)
BC-11 (23)	2000	SA	- $\frac{5}{16}$ " / + $\frac{1}{4}$ "	300	1,152,000	4%	CS-BH2/3 (CD-6/7)
BC-12 (24)	2000	SA	- $\frac{5}{16}$ " / + $\frac{1}{4}$ "	300	1,152,000	4%	TC-PW6 (CD-17)
BC-13 (25)	2000	SA	- $\frac{1}{4}$ " / + 0"	300	1,152,000	4%	CS-BH2/3 (CD-6/7)
BC-14 (26)	2000	SA	- $\frac{1}{4}$ " / + 0"	300	1,152,000	4%	TC-PW7 (CD-18)
BC-15 (29)	2000	SA	-4" / + 0"	400	1,536,000	4%	TC-PW8 (CD-19)

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- $\frac{3}{4}$ " 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-1	OS-2	OS-3	OS-4	OS-5	OS-6
Type of Material Stored ²	SA - #8's	SA - ¾" CR	FA - BH Dust	SA - #57's	SA - #4's	SA - #9's
Average Moisture Content (%) ³	2	2	2	2	2	2
Maximum Yearly Storage Throughput (tons) ⁴	1,536,000*	1,536,000*	1,536,000*	1,536,000*	1,536,000*	1,536,000*
Maximum Storage Capacity (tons) ⁵	72,000	52,000	2,500	70,000	20,000	15,000
Maximum Base Area (ft ²) ⁶	87,000	49,000	13,000	74,000	25,000	23,000
Maximum Pile Height (ft) ⁷	35	35	5	35	35	35
Method of Material Load-in ⁸	TD	TD	TD	TD	TD	TD
Load-in Control Device Identification Number ⁹	HR-WS1	HR-WS1	HR-WS1	HR-WS1	HR-WS1	HR-WS1
Storage Control Device Identification Number ⁹	HR-WS1	HR-WS1	HR-WS1	HR-WS1	HR-WS1	HR-WS1
Method of Material Load-out ⁸	FE	FE	FE	FE	FE	FE
Load-out Control Device Identification Number ⁹	HR-WS1	HR-WS1	HR-WS1	HR-WS1	HR-WS1	HR-WS1

***This number is arbitrary and depends on sales of each product**

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

Source Identification Number ¹	OS-7	OS-8	OS-9	OS-10		
Type of Material Stored ²	FA – Dust	SA - 1-1/2” CR	SA - #57’s	SA – Various CR		
Average Moisture Content (%) ³	2	2	2	2		
Maximum Yearly Storage Throughput (tons) ⁴	1,536,000*	1,536,000*	1,536,000*	1,536,000*		
Maximum Storage Capacity (tons) ⁵	64,000	32,000	11,000	30,000		
Maximum Base Area (ft ²) ⁶	63,000	30,000	15,000	33,000		
Maximum Pile Height (ft) ⁷	35	35	35	35		
Method of Material Load-in ⁸	TD	TD	TD	SS		
Load-in Control Device Identification Number ⁹	HR-WS1	HR-WS1	HR-WS1	TC-WS1 (CD-22)		
Storage Control Device Identification Number ⁹	HR-WS1	HR-WS1	HR-WS1	HR-WS1		
Method of Material Load-out ⁸	FE	FE	FE	FE		
Load-out Control Device Identification Number ⁹	HR-WS1	HR-WS1	HR-WS1	HR-WS1		

***This number is arbitrary and depends on sales of each product**

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.

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		Controlled Emissions	
	Hourly (lb/hr)	Annual (tpy)	Hourly (lb/hr)	Annual (tpy)
Dump Trucks	111.98	107.50	33.59	32.25
Haul Trucks	122.37	117.48	36.71	35.24

Attachment H -

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: **31**
2. Manufacturer's name and model identification: **Fuller Bulk Handling Module Collector – Model S(6) Series – Single Model #420 S 12-6**
3. Number of compartments in baghouse: **One**
4. Number of compartments online during normal operation and conditions: **One**
5. Gas flow rate into baghouse: **37,000** ACFM @ **Ambient** °F and _____ PSIA
6. Total cloth area: **7,917** ft²
7. Operating air to cloth ratio: **5.0:1** ft/min
8. Filter media type: **16 oz. Polyester**
9. Stabilized static pressure drop across baghouse: **6** 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: **1,585** lb/hr and **5** grains/ACF
Exiting baghouse: **6.34** lb/hr and **0.02** grains/ACF
13. Guaranteed minimum baghouse collection efficiency: **99.6** %
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:
Ductwork is installed from collector inlet to dust emission points at crusher discharges, sizing screens and conveyor transfers. Collection points will be enclosed and hooded with air flows through the system at approximately 5,000 FPM. See drawing SSE-421-1. Ducts are various sizes (6", 8", 14", 18" and 20"). The fan is 100 HP.
15. Describe the method of disposal for the collected material:
Material will be conveyed via a screen to an enclosed container trailer. It will then be disposed of in the quarry overburden storage area.

Attachment I - Emissions Calculations

INPUTS

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

Name of applicant: Fairfax Materials, Inc.
 Name of plant: Ours 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		
CR-1	Hazemag APPH 1315 (4)	400	1,536,000	CS-PW1 & TC-BH1	99.6

1b. SECONDARY AND TERTIARY CRUSHING

Secondary & Tertiary Crusher ID	Description	Maximum Material Processing Capacity		Control Device ID Number	Control Efficiency %
		TPH	TPY		
CR-2	96" Camco (18)	400	1,536,000	CS-BH3	99.6

1c. SCREENING

Secondary & Tertiary Crusher ID	Description	Maximum Material Processing Capacity		Control Device ID Number	Control Efficiency %
		TPH	TPY		
S-1	5' x 12' Simplicity H.D. Scalper (3)	700	2,688,000	CS-PW1	80
S-2	6' x 20' Simplicity Inclined Screen (12)	500	1,920,000	TC-BH3	99.6
S-3	6' x 20' Simplicity Inclined Screen (13)	500	1,920,000	TC-BH3	99.6
S-4	6' x 12' Deister High Frequency (30)	300	1,152,000	CS-PW2	80

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	#8's	2	87,000	HR-WS1	75
OS-2	3/4" Crusher Run	2	49,000	HR-WS1	75
OS-3	Bag House Dust	2	13,000	HR-WS1	75
OS-4	#57's	2	74,000	HR-WS1	75
OS-5	#4's	2	25,000	HR-WS1	75
OS-6	#9's	2	23,000	HR-WS1	75
OS-7	Dust	2	63,000	HR-WS1	75
OS-8	1-1/2" Crusher Run	2	30,000	HR-WS1	75
OS-9	#57's (Pit)	2	15,000	HR-WS1	75
OS-10	Stacker (Various CR)	2	33,000	HR-WS1	75

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	20 Ton Dump Truck	10	25	10	0.5	20	38,400	HR-WS1	70
2	40 Ton Haul Truck	6	50	10	0.4	20	38,400	HR-WS1	70
3									
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							

EMISSIONS SUMMARY

Name of applicant: Fairfax Materials, Inc.
 Name of plant: Ours 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>	1.05	4.62	0.26	1.15
<i>Unpaved Haulroad Emissions</i>	234.35	224.98	70.31	67.49
<i>Paved Haulroad Emissions</i>	0.00	0.00	0.00	0.00
Fugitive Emissions Total	235.41	229.60	70.57	68.65

POINT SOURCE EMISSIONS				
<i>Equipment Emissions</i>	52.96	101.68	5.11	9.81
<i>Transfer Point Emissions</i>	32.48	62.35	3.11	5.98
Point Source Emissions Total*	85.44	164.04	8.22	15.79

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

Facility Emissions Total	320.84	393.63	78.79	84.44
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***Facility Potential to Emit (PTE) (Baseline Emissions) = 15.79**
 (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>	0.50	2.17	0.12	0.54
<i>Unpaved Haulroad Emissions</i>	69.17	66.41	20.75	19.92
<i>Paved Haulroad Emissions</i>	0.00	0.00	0.00	0.00
Fugitive Emissions Total	69.67	68.58	20.88	20.46

POINT SOURCE EMISSIONS				
<i>Equipment Emissions</i>	18.76	36.02	1.78	3.42
<i>Transfer Point Emissions</i>	15.36	29.49	1.47	2.83
Point Source Emissions Total*	34.12	65.51	3.25	6.25

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

Facility Emissions Total	103.79	134.09	24.13	26.71
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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
CR-1	0.800	1.536	0.003	0.006	0.400	0.768	0.002	0.003
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	0.800	1.536	0.003	0.006	0.400	0.768	0.002	0.003

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
CR-2	2.160	4.147	0.009	0.017	0.960	1.843	0.004	0.007
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
0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
TOTAL	2.160	4.147	0.009	0.017	0.960	1.843	0.004	0.007

1c. Screening

Screen ID Number	PM				PM-10			
	Uncontrolled		Controlled		Uncontrolled		Controlled	
	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
S-1	17.500	33.600	3.500	6.720	6.090	11.693	1.218	2.339
S-2	12.500	24.000	0.050	0.096	4.350	8.352	0.017	0.033
S-3	12.500	24.000	0.050	0.096	4.350	8.352	0.017	0.033
S-4	7.500	14.400	1.500	2.880	2.610	5.011	0.522	1.002
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	50.000	96.000	5.100	9.792	17.400	33.408	1.775	3.408

Crushing and Screening	PM				PM-10			
	Uncontrolled		Controlled		Uncontrolled		Controlled	
	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
TOTAL	52.960	101.683	5.112	9.815	18.760	36.019	1.780	3.418

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
1	0.973	1.868	0.146	0.280	0.460	0.883	0.069	0.133
2	0.551	1.059	0.083	0.159	0.261	0.501	0.039	0.075
3	0.556	1.067	0.111	0.213	0.263	0.505	0.053	0.101
4	0.556	1.067	0.111	0.213	0.263	0.505	0.053	0.101
5	0.556	1.067	0.111	0.213	0.263	0.505	0.053	0.101
6	0.556	1.067	0.167	0.320	0.263	0.505	0.079	0.151
7	0.973	1.868	0.195	0.374	0.460	0.883	0.092	0.177
8	0.556	1.067	0.111	0.213	0.263	0.505	0.053	0.101
9	1.467	2.816	0.006	0.011	0.694	1.332	0.003	0.005
10	2.567	4.929	0.010	0.020	1.214	2.331	0.005	0.009
11	1.834	3.521	0.007	0.014	0.867	1.665	0.003	0.007
12	1.834	3.521	0.007	0.014	0.867	1.665	0.003	0.007
13	1.100	2.112	0.004	0.008	0.520	0.999	0.002	0.004
14	1.100	2.112	0.004	0.008	0.520	0.999	0.002	0.004
15	1.467	2.816	0.006	0.011	0.694	1.332	0.003	0.005
16	1.467	2.816	0.006	0.011	0.694	1.332	0.003	0.005
17	1.467	2.816	0.293	0.563	0.694	1.332	0.139	0.266
18	1.467	2.816	0.006	0.011	0.694	1.332	0.003	0.005
19	0.458	0.880	0.002	0.004	0.217	0.416	0.001	0.002
20	0.458	0.880	0.002	0.004	0.217	0.416	0.001	0.002
21	0.347	0.667	0.069	0.133	0.164	0.315	0.033	0.063
22	0.347	0.667	0.069	0.133	0.164	0.315	0.033	0.063
23	0.458	0.880	0.002	0.004	0.217	0.416	0.001	0.002
24	0.458	0.880	0.002	0.004	0.217	0.416	0.001	0.002
25	0.347	0.667	0.069	0.133	0.164	0.315	0.033	0.063
26	0.347	0.667	0.069	0.133	0.164	0.315	0.033	0.063
27	0.458	0.880	0.002	0.004	0.217	0.416	0.001	0.002
28	0.458	0.880	0.002	0.004	0.217	0.416	0.001	0.002
29	0.347	0.667	0.069	0.133	0.164	0.315	0.033	0.063
30	0.347	0.667	0.069	0.133	0.164	0.315	0.033	0.063
31	0.458	0.880	0.002	0.004	0.217	0.416	0.001	0.002
32	0.458	0.880	0.002	0.004	0.217	0.416	0.001	0.002
33	0.347	0.667	0.069	0.133	0.164	0.315	0.033	0.063
34	0.347	0.667	0.069	0.133	0.164	0.315	0.033	0.063
35	0.174	0.334	0.035	0.067	0.082	0.158	0.016	0.032
36	0.174	0.334	0.035	0.067	0.082	0.158	0.016	0.032
37	0.174	0.334	0.035	0.067	0.082	0.158	0.016	0.032
38	0.174	0.334	0.035	0.067	0.082	0.158	0.016	0.032
39	0.174	0.334	0.035	0.067	0.082	0.158	0.016	0.032
40	0.174	0.334	0.035	0.067	0.082	0.158	0.016	0.032
41	0.174	0.334	0.035	0.067	0.082	0.158	0.016	0.032
42	0.278	0.534	0.056	0.107	0.131	0.252	0.026	0.050
43	0.278	0.534	0.056	0.107	0.131	0.252	0.026	0.050
44	0.278	0.534	0.069	0.133	0.131	0.252	0.033	0.063
45	1.467	2.816	0.367	0.704	0.694	1.332	0.173	0.333
46	1.467	2.816	0.367	0.704	0.694	1.332	0.173	0.333
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

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
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
TOTALS	32.476	62.354	3.113	5.977	15.360	29.492	1.472	2.827

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= $\$I88 \cdot (0.0032) \cdot (((\text{Inputs!}\$I\$72)/5)^{1.3}) / (((\text{Inputs!}G78 + 0.00000001)/2)^{1.4})$
 =lb/ton

For PM-10 E= $\$J88 \cdot (0.0032) \cdot (((\text{Inputs!}\$I\$72)/5)^{1.3}) / (((\text{Inputs!}G78 + 0.00000001)/2)^{1.4})$
 =lb/ton

For lb/hr [lb/ton]*[ton/hr] = [lb/hr]

For Tons/year [lb/ton]*[ton/yr]*[ton/2000lb] = [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-1	0.223	0.975	0.056	0.244	0.105	0.458	0.026	0.115
OS-2	0.125	0.549	0.031	0.137	0.059	0.258	0.015	0.065
OS-3	0.033	0.146	0.008	0.036	0.016	0.068	0.004	0.017
OS-4	0.189	0.829	0.047	0.207	0.089	0.390	0.022	0.097
OS-5	0.064	0.280	0.016	0.070	0.030	0.132	0.008	0.033
OS-6	0.059	0.258	0.015	0.064	0.028	0.121	0.007	0.030
OS-7	0.161	0.706	0.040	0.177	0.076	0.332	0.019	0.083
OS-8	0.077	0.336	0.019	0.084	0.036	0.158	0.009	0.040
OS-9	0.038	0.168	0.010	0.042	0.018	0.079	0.005	0.020
OS-10	0.084	0.370	0.021	0.092	0.040	0.174	0.010	0.043
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
TOTALS	1.054	4.617	0.264	1.154	0.495	2.170	0.124	0.543

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	111.98	107.50	33.59	32.25	33.05	31.73	9.92	9.52
2	122.37	117.48	36.71	35.24	36.12	34.68	10.84	10.40
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	234.35	224.98	70.31	67.49	69.17	66.41	20.75	19.92

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

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

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

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

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 $E = ((\$34 * (((\$35)/2)^{0.65} * (((\text{Inputs!G190})/3)^{1.5}) - (\$38))) * (1 - ((\text{Inputs!S184})))$

For PM-10 $E = ((\$J\$34) * (((\$35)/2)^{0.65} * (((\text{Inputs!G190})/3)^{1.5}) - (\$38))) * (1 - ((\text{Inputs!S184})))$

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

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

Attachment J – Class I Legal Advertisement

AIR QUALITY PERMIT NOTICE Notice of Application

Notice is given that Fairfax Materials, Inc. has applied to the West Virginia Department of Environmental Protection, Division of Air Quality, for a Modification Permit for a Nonmetallic Minerals Processing Facility located on WV Route 5/7, near Arthur, WV, in Grant County, West Virginia. The latitude and longitude coordinates are: 39.09176° N 79.05720° W

The applicant estimates the potential to discharge the following Regulated Air Pollutants will be: 84.44 TPY of PM and 26.71 TPY of PM₁₀.

Startup of operation is planned to begin on or about the 1st day of September, 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 (Day) day of (Month), (Year).

By: Fairfax Materials, inc.
Ronald A. Matovsik
President
P.O. Box 850
Laurel, MD 20725

Attachment N - MSDS
SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

Product Name: Limestone
Synonym/s: High Calcium Limestone; Hi-Cal Limestone; Calcium Carbonate; Calcite; Ag Lime
Chemical Name: Calcium Carbonate **Chemical Formula:** CaCO₃
Product Use/s: pH adjustment, Mineral Filler, FGT, Construction, Agriculture, Aggregate, Steel

Manufacturer:	US Operations: Lhoist North America 3700 Hulen St. Fort Worth, TX 76107 817-732-8164	Canadian Operations: Lhoist North America of Canada, Inc. 20302-102B Ave. Langley, BC V1M 3H1 604-888-4333
	Emergency Phone: Chemtrec 1-800-424-9300	

SECTION 2: HAZARDS IDENTIFICATION

Emergency Overview: Limestone is an odorless white, grayish-white or tan material that ranges from pebble to a granular powder. Contact can cause irritation to eyes, skin, respiratory system, and gastrointestinal tract. Limestone reacts with acid to form CO₂.

Potential Health Effects

- Eyes:** Contact can cause irritation of eyes.
- Skin:** Contact can cause mild irritation of skin.
- Ingestion:** This product can cause mild irritation of gastrointestinal tract if swallowed.
- Inhalation:** This product can cause mild irritation of the respiratory system. Long-term exposure may cause permanent damage. Limestone is not listed by MSHA, OSHA, or IARC as a carcinogen. However, this product may contain trace amounts of crystalline silica in the form of quartz or cristobalite, which has been classified by IARC as a Group I carcinogen to humans when inhaled. Inhalation of silica can also cause a chronic lung disorder, silicosis.

Potential Environmental Effects: This material is alkaline and if released into water or moist soil will cause an increase in pH.

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

Ingredient	Chemical Formula	Common Name	Conc. (%)	CAS
Calcium Carbonate	CaCO ₃	Limestone	> 95	1317-65-3
Crystalline Silica	SiO ₂	Quartz	< 2	14808-60-7

(Crystalline Silica is reported as total silica and not just the respirable fraction)

SECTION 4: FIRST AID MEASURES

- Eyes:** Immediately flush eyes with generous amounts of water or eye wash solution if water is unavailable. Pull back eyelid while flushing to ensure that all limestone dust has been washed out. Seek medical attention promptly if the initial flushing of the eyes does not remove the irritant. Do not rub eyes.
- Skin:** Brush off or remove as much dry limestone as possible. Wash exposed area with large amounts of water. If burned seriously or if irritation persists, seek medical attention promptly.
- Inhalation:** Move victim to fresh air. Seek medical attention. If breathing has stopped, give artificial respiration.

Transportation of Dangerous Goods (TDG) when shipped by any mode of transport.

SECTION 15: REGULATORY INFORMATION

U.S. EPA Regulations: RCRA Hazardous Waste Number (40 CFR 261.33): not listed
 RCRA Hazardous Waste Classification (40 CFR 261): not classified
 CERCLA Hazardous Substance (40 CFR 302.4) unlisted specific per RCRA, Sec. 3001;
 CWA, Sec. 311(b)(4); CWA, Sec. 307(a), CAA, Sec. 112
 CERCLA Reportable Quantity (RQ), not listed
 SARA 311/312 Codes: not listed
 SARA Toxic Chemical (40 CFR 372.65): not listed
 SARA EHS (Extremely Hazardous Substance) (40 CFR 355): not listed, Threshold
 Planning Quantity (TPQ): not listed
 All chemical ingredients are listed on the US EPA TSCA Inventory List.

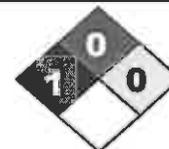
OSHA/MSHA Regulations: Air Contaminant (29 CFR 1910.1000, Table Z-1, Z-1-A): 5mg/M³ TWA-8
 MSHA: not listed
 OSHA Specifically Regulated Substance (29 CFR 1910): not listed

State Regulations: Consult state and local authorities for guidance. Components found in this product may contain trace amounts of inherent naturally occurring elements (such as, but not limited to arsenic and cadmium) that may be regulated under California Proposition 65 and other States regulations.

Canada: WHMIS Classification: "D2A" Materials Causing Other Toxic Effects
 Canada NDSL: Listed

SECTION 16: OTHER INFORMATION

Prepared By: Lhoist North America, Technical Services
Date Prepared: June 15, 2012 **Revision:** 2012-1



NFPA Hazard Class: Health: 1 Flammability: 0 Reactivity: 0
HMIS Hazard Class: Health: 1 Flammability: 0 Reactivity: 0 Specific Hazard: ALK

Abbreviations: N/A Not Available or Not Applicable
 IARC International Agency for Research on Cancer
 IATA International Air Transport Association
 ACGIH American Conference of Governmental Industrial Hygienists
 TWA Time Weighted Average
 PEL Permissible Exposure Limit
 TLV Threshold Limit Value
 REL Recommended Exposure Limit

Lhoist North America provides the information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person. Individuals receiving this information must consult their own technical and legal advisors and/ or exercise their own judgment in determining its appropriateness for a particular purpose. Lhoist North America makes no representations or warranties, either express or implied, including without limitation and warranties of merchantability or fitness for a particular purpose with respect to the information set forth herein or the product(s) to which the information refers. Accordingly, Lhoist North America will not be responsible or liable for any claims, losses or damages resulting from the use of or reliance upon or failure to use this information.

EMISSION SUMMARY SHEET FOR HAZARDOUS/TOXIC POLLUTANTS

Registration Number (Agency Use) <u>G40-C</u>												
Source ID No.	Potential Emissions (lbs/hr)						Potential Emissions (tons/yr)					
	Benzene	Ethyl- benzene	Toluene	Xylenes	n- Hexane	Formalde- hyde	Benzene	Ethyl- benzene	Toluene	Xylenes	n- Hexane	Formalde- hyde
Total												