WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF AIR QUALITY
601 - 57th Street
Charleston, WV 25304
Phone: (304) 926-0475 • *www.wvdep.org*

APPLICATION FOR GENERAL PERMIT REGISTRATION

CONSTRUCT, MODIFY, RELOCATE OR ADMINISTRATIVELY UPDATE A STATIONARY SOURCE OF AIR POLLUTANTS

PLEASE CHECK ALL THAT APPLY (IF KNOWN):
☐ **CONSTRUCTION** ☐ **MODIFICATION** ☒ **RELOCATION**
☐ **ADMINISTRATIVE UPDATE** ☐ **AFTER-THE-FACT**

FOR AGENCY USE ONLY: *PLANT I.D. #* _____

PERMIT # _____ *PERMIT WRITER*: _____

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

☐ **G10-C –** Coal Preparation and Handling
☐ **G20-B –** Hot Mix Asphalt
☐ **G30-D –** Natural Gas Compressor Stations
☐ **G35-A –** Natural Gas Compressor Stations (Flare/Glycol Dehydration Unit)
☐ **G40-B –** Nonmetallic Minerals Processing
☒ **G50-B –** Concrete Batch
☐ **G60-B** - Class II Emergency Generator
☐ **G65B –** Class I Emergency Generator

SECTION I. GENERAL INFORMATION

1. NAME OF APPLICANT (AS REGISTERED WITH THE WV SECRETARY OF STATE'S OFFICE):
R.G. Johnson Company, Inc.

2. FEDERAL EMPLOYER ID NO. **(FEIN):**
25-1578332

3. APPLICANT'S MAILING ADDRESS:
25 South College Street, Washington, PA 15301

4. IF APPLICANT IS A SUBSIDIARY CORPORATION, PLEASE PROVIDE THE NAME OF PARENT CORPORATION:
N/A

5. **WV BUSINESS REGISTRATION.** IS THE APPLICANT A RESIDENT OF THE STATE OF WEST VIRGINIA? ☐ **YES** ☒ **NO**

➪ IF **YES,** PROVIDE A COPY OF THE **CERTIFICATE OF INCORPORATION** / **ORGANIZATION** / **LIMITED PARTNERSHIP** (ONE PAGE) INCLUDING ANY NAME CHANGE AMENDMENTS **OR** OTHER ***BUSINESS CERTIFICATE*** AS **ATTACHMENT A.**

➪ IF **NO,** PROVIDE A COPY OF THE **CERTIFICATE OF AUTHORITY** / **AUTHORITY OF L.L.C.** / **REGISTRATION** (ONE PAGE) INCLUDING ANY NAME CHANGE AMENDMENTS **OR** OTHER ***BUSINESS CERTIFICATE*** AS **ATTACHMENT A** .

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.) :
Concrete Batch Plant

8. STANDARD INDUSTRIAL CLASSIFICATION (**SIC**) CODE FOR THE FACILITY:
3273

9A. DAQ PLANT I.D. NO. (FOR AN EXISTING FACILITY:	10A. LIST ALL CURRENT 45CSR13 AND 45CSR30 (TITLE V) PERMIT NUMBERS ASSOCIATED WITH THIS PROCESS (FOR EXISTING FACILITY ONLY):
G 5 0 - B 0 7 3	

PRIMARY OPERATING SITE INFORMATION

11A. NAME OF PRIMARY OPERATING SITE:	12A. MAILING ADDRESS OF PRIMARY OPERATING SITE:
Harrison County Mine, 7 North Portal	1210 Sams Run Road Folsom, WV 26348

13A. DOES THE APPLICANT OWN, LEASE, HAVE AN OPTION TO BUY, OR OTHERWISE HAVE CONTROL OF THE *PROPOSED SITE*?
☐ **YES** ☒ **NO**

➪ IF **YES**, PLEASE EXPLAIN: R.G. Johnson Company will take control of the site upon arrival, but the owner will remain Harrison County Mine

➪ 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.

Travel I-79 North to Bridgeport, WV. Take Exit 121 toward County Route 24/Meadowbrook Road. Take a slight right onto US-19 North. Turn left onto Main Street. Go 17.8 miles and turn right onto Sams Run Road. Turn onto jobsite access road.

INCLUDE A **MAP** AS **ATTACHMENT F**.

15A. NEAREST CITY OR TOWN:	16A. COUNTY:	
Folsom, WV	Wetzel	
17A. UTM NORTHING (KM):	18A. UTM EASTING (KM):	19A. UTM ZONE:
4369.653	5433.17	17S

1ST *ALTERNATE OPERATING SITE INFORMATION*

11B. NAME OF PRIMARY OPERATING SITE:	12B. MAILING ADDRESS OF PRIMARY OPERATING SITE:

13B. 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.

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 NORTHING (KM):	18B. UTM EASTING (KM):	19B. UTM ZONE:

2ND *ALTERNATE OPERATING SITE INFORMATION*

11C. NAME OF PRIMARY OPERATING SITE:	12C. MAILING ADDRESS OF PRIMARY OPERATING SITE:
_____	_____
_____	_____

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 NORTHING (KM):	18C. UTM EASTING (KM):	19C. UTM ZONE:

20. PROVIDE THE DATE OF ANTICIPATED INSTALLATION OR CHANGE: 3 / 30 / 15 ➪ 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: _____/_____/_____

22. PROVIDE MAXIMUM PROJECTED **OPERATING SCHEDULE** OF ACTIVITY/ ACTIVITIES OUTLINED IN THIS APPLICATION:

HOURS PER DAY 14 DAYS PER WEEK 1 WEEKS PER YEAR 52 PERCENTAGE OF OPERATION ____

SECTION III. ATTACHMENTS AND SUPPORTING DOCUMENTS

PLEASE CHECK ALL ATTACHMENTS INCLUDED WITH THIS PERMIT APPLICATION:
Please See 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: AFFECTED SOURCE SHEETS**
- ☒ **ATTACHMENT H: BAGHOUSE AIR POLLUTION CONTROL DEVICE SHEET**
- ☒ **ATTACHMENT I: EMISSIONS CALCULATIONS**
- ☒ **ATTACHMENT J: CLASS I LEGAL ADVERTISEMENT**
- ☒ **ATTACHMENT K: ELECTRONIC SUBMITTAL DISKETTE**
- ☒ **CERTIFICATION OF INFORMATION**
- ☒ **ATTACHMENT L: GENERAL PERMIT REGISTRATION APPLICATION FEE**
- ☐ **ATTACHMENT M: SITING CRITERIA WAIVER**

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. PLEASE DO NOT FAX PERMIT APPLICATIONS. FOR QUESTIONS REGARDING APPLICATIONS OR WEST VIRGINIA AIR POLLUTION RULES AND REGULATIONS PLEASE CALL (304) 926-0475.

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**

☐

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 Chief 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 _____

(please use blue ink) **Responsible Official** **Date**

Name & Title _____

(please print or type)

Signature _____

(please use blue ink) **Authorized Representative (if applicable)** **Date**

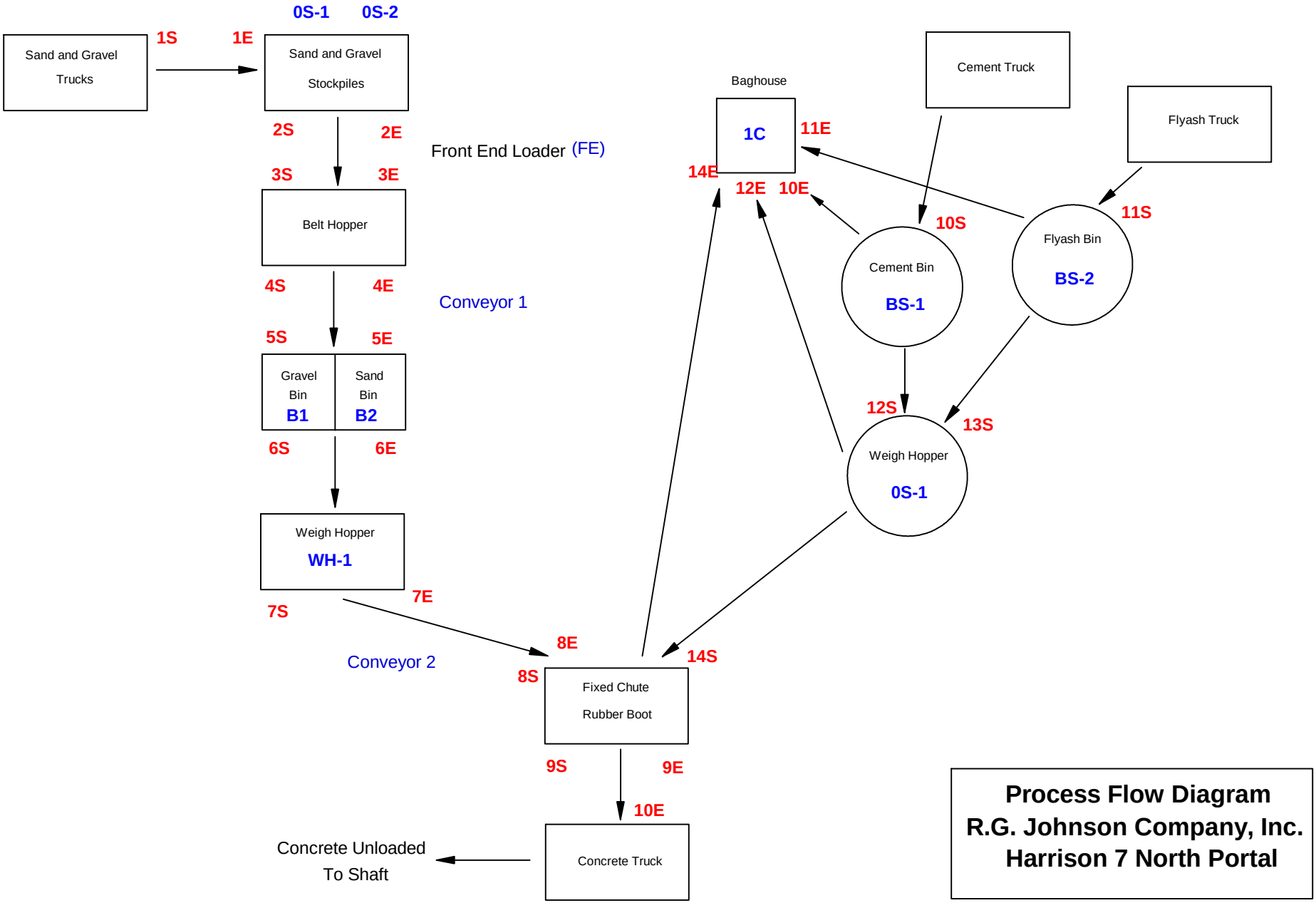
Applicant's Name _____

Phone & Fax _____

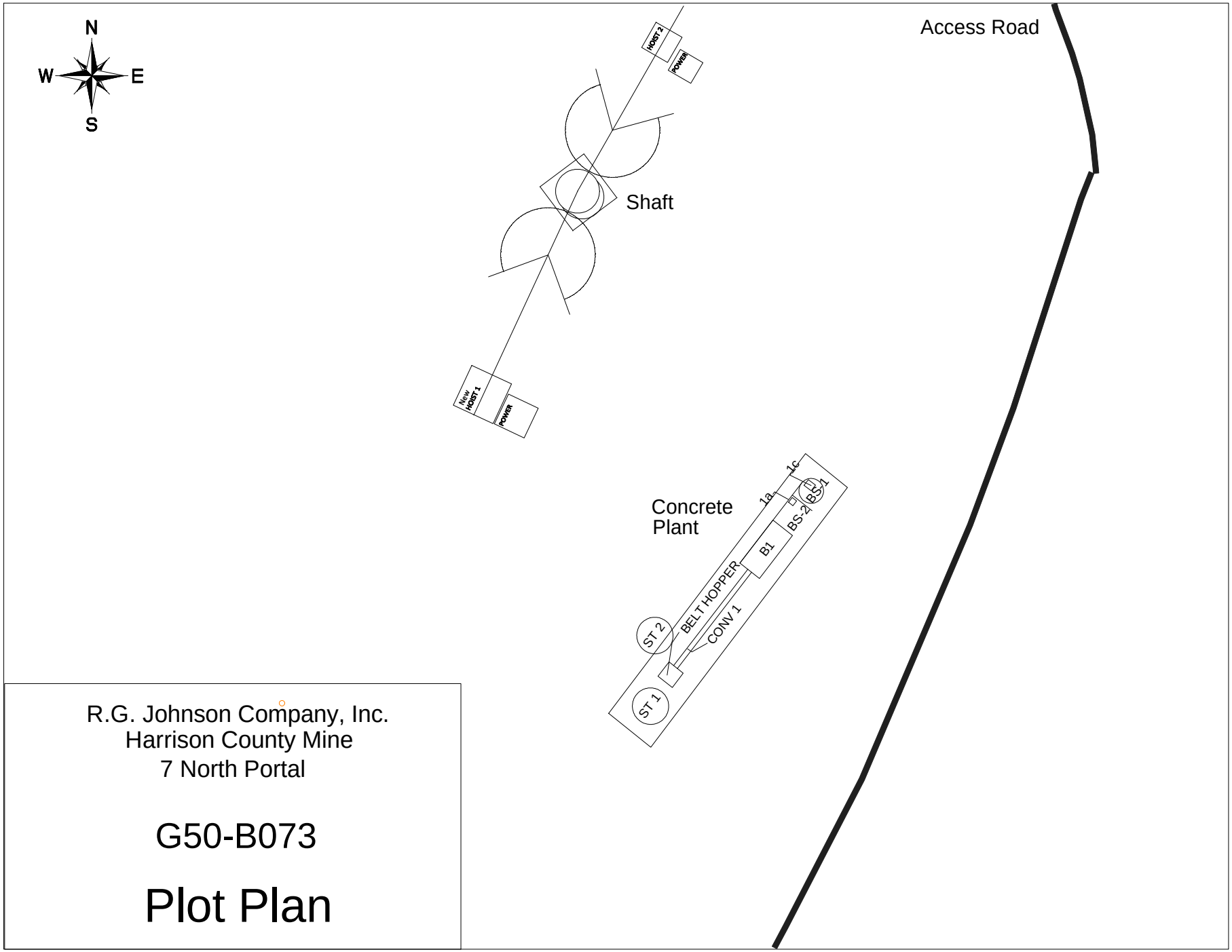
Phone **Fax**

Email _____

Attachment D



Process Flow Diagram
R.G. Johnson Company, Inc.
Harrison 7 North Portal



R.G. Johnson Company, Inc.
Harrison County Mine
7 North Portal

G50-B073

Plot Plan

Attachment G

West Virginia Department of Environmental Protection • Division of Air Quality

CBP PRODUCTION EQUIPMENT DATA SHEET

CBP Production Information	Source Identification Number[1]	WH-1	
	Manufacturer & Model Number	Erie Strayer	
	Date of Manufacture	2008	
	Maximum Design Production Rate[2]	64	
	Maximum Annual Production[3]	40,000	
	Daily Operation	12	hours/day
	Annual Operation	52	days/year
		624	hours/year
	Approximate Percentage of Operation from:	25%	Jan - Mar
		25%	April - June
		25%	July - Sept
		25%	Oct - Dec

1. Enter the appropriate Source Identification Number for each concrete batch plant production weigh hopper or central mixer. Batch plant weigh hopper should be designated WH-1, WH-2, etc. Batch plant central mixer should be designated CM-1, CM-2, etc. 2. Enter the manufacturer's Maximum Design Production Rate of the concrete batch plant production equipment. Specify units in tons/hour. 3. Enter the Maximum Annual Production of the concrete batch plant. Specify units of cubic yards per year or tons per year. To calculate Maximum Annual Production, multiply the Maximum Design Production Rate (tons/hr) by the Annual Operation (hrs/yr).

Attachment G

West Virginia Department of Environmental Protection • Division of Air Quality

CBP PRODUCTION EQUIPMENT DATA SHEET

CBP Production Information	Source Identification Number[1]	WH-2	
	Manufacturer & Model Number	Erie Strayer	
	Date of Manufacture	2008	
	Maximum Design Production Rate[2]	10	
	Maximum Annual Production[3]	6240	
	Daily Operation	12	hours/day
	Annual Operation	52	days/year
		624	hours/year
	Approximate Percentage of Operation from:	25%	Jan - Mar
		25%	April - June
		25%	July - Sept
		25%	Oct - Dec

1. Enter the appropriate Source Identification Number for each concrete batch plant production weigh hopper or central mixer. Batch plant weigh hopper should be designated WH-1, WH-2, etc. Batch plant central mixer should be designated CM-1, CM-2, etc. 2. Enter the manufacturer's Maximum Design Production Rate of the concrete batch plant production equipment. Specify units in tons/hour. 3. Enter the Maximum Annual Production of the concrete batch plant. Specify units of cubic yards per year or tons per year. To calculate Maximum Annual Production, multiply the Maximum Design Production Rate (tons/hr) by the Annual Operation (hrs/yr).

Attachment G

CBP PLANT MATERIAL STORAGE & HANDLING DATA SHEET						
Source Identification Number[1]	OS-1	OS-2	BS-1	BS-2		
Material Stored[2]	Gravel	Sand	Cement	Flyash		
Maximum Yearly Throughput (tons/year)[3]	4250	3500	1500	750		
Typical Moisture Content (%)[4]	1	4-6	.05	.05		
Average % of Material Passing Through 200 Mesh Sieve[5]	5	5	100	100		
Maximum Stockpile Base Area (ft)[26]	800	615	N/A	N/A		
Maximum Stockpile Height (ft)[7]	15	14	N/A	N/A		
Maximum Storage Capacity (tons)[8]	200	150	90	30		
Dust Control Method Applied to Storage[9]	NO	NO	FE	FE		
Method of Material Load-in to Bin or Stockpile[10]	TD	TD	OT	OT		
Dust Control Method Applied During Load-in[11]	MD	MD	FE	Fe		
Method of Material Load-out from Bin or Stockpile[10]	FE	FE	ST	ST		
Dust Control Method Applied During Load-out[11]	MD	MD	FE	FE		

1. Enter the appropriate Source Identification Number for each storage activity using the following codes. For example, if the facility utilizes four open stockpiles and one storage silo, the Source Identification Numbers should be OS-1, OS-2, OS-3, and OS-4; and BS-1, respectively. OS Open Stockpile E3 Enclosure (three-sided enclosure) BS Bin or Storage Silo (full enclosure) SB Storage Building (full enclosure) SF Stockpiles with wind fences OT Other (please specify) 2. Describe the type of material stored or stockpiled. 3. Enter the maximum yearly storage throughput for each storage activity. 4. Enter the average percent moisture content of the stored material. 5. Enter the average percent of material that will pass through a 200 mesh sieve. 6. For stockpiles, enter the maximum stockpile base area. 7. For stockpiles, enter the maximum stockpile height. 8. Enter the maximum storage capacity for each storage activity in tons (e.g. silo capacity, maximum stockpile size, etc.). 9. Enter the dust control method applied to storage activity using the following codes: CA Crusting Agent WS Water Spray FE Full Enclosure NO None OT Other _____ (please specify) 10. Enter the method of load-in or load-out to/from stockpiles or bins using the following codes: FE Front Endloader SS Stationary Conveyor/Stacker ST Stacking Tube MC Mobile Conveyor/Stacker CS Clamshell TD Truck Dump OT Other ___**Cement Truck**_____ (please specify) 11. Enter the dust control method applied during load-in or load-out using the following codes: CA Crusting Agent WS Water Spray FE Full Enclosure MD Minimize Drop Height ST Stacking Tube NO None OT Other _____ (please specify)

Attachment G

Attachment H

CBP AIR POLLUTION CONTROL DEVICE DATA SHEET		FABRIC FILTER BAGHOUSE	FILTER VENT	FABRIC FILTER DISCHARGE SOCK
General Information	APCD Identification Number[1]	1C		
	Manufacturer & Model Number	C&W RA-140		
	Number of Compartments	36		
	Gas Inlet Area (ft)[2]			
	Gas Outlet Area (ft)[2]			
	Fabric Filter Cleaning Mechanism[2]	Reverse Air		
	Total Cloth (fabric) Area (ft)[2]	1440		
	Draft Fan HP	10		
	Outlet Stack Area (ft)[2]			
Operational Parameters	[2]Minimum Design PD (in H O)			
	[2]Maximum Design PD (in H O)			
	Inlet Gas Flow Rate (ACFM)	6500		
	Inlet Gas Temperature ($_o$F)	Ambient		
	Inlet Gas Pressure (PSIA)			
	Inlet Gas Velocity (ft/sec)			
	PM Inlet Rate (grains/scf)	$1.8E^{-02}$		
	PM Outlet Rate (grains/scf)	$1.8E^{-05}$		
	Operating Air/Cloth Ratio (ft/min)	4.54 CFM/ft^2		
Baghouse Fractional Efficiency[4]	Particle Size Range (μm)	Weight Percent for Particle Size Range		
	0-2			
	2-4			
	4-6			
	6-8			
	8-10			
	10-12			
	12-16			
	16-20			
	20-30			
	30-40			
	40-50			
	50-60			
	60-70			
	70-80			
	80-90			
	90-100			

1. Enter the appropriate Air Pollution Control Device Identification Number for each fabric filter baghouse, filter vent or discharge sock. The devices should be designated APCD-1, APCD-2, APCD-3, etc. 2. Enter method used to clean bags: shaker, pulse jet, reverse jet or other. 3. Complete more than one CBP Air Pollution Control Device Data Sheet if necessary. 4. Enter the fractional efficiency of the fabric filter baghouse.

CBP EMISSION SUMMARY SHEET

Company Name R.G. Johnson Company, Inc.	Registration Number (Agency Use) G50-B
Maximum Design Production Rate ___32___ yd /hr 3	Maximum Yearly Production 40,000 tons

Source	PM		PM 10	
	PTE tons/yr	PTE lbs/hr	PTE tons/yr	PTE lbs/hr
Total Aggregate Transfer Emissions1	0.4733	2.1735	0.2264	1.0395
Total Sand Transfer Emissions1	0.3333	1.8630	0.1594	0.8910
Cement Unloading to Elevated Storage Silo (Pneumatic)2	0.0230	0.5760	0.0147	0.3680
Pneumatic Cement Additive Unloading to Silo2	0.000	0.000	0.000	0.000
Weigh Hopper Loading3	0.4680	0.0734	0.0147	0.0469
Mixer Loading (Central)3	0.4608	1.4688	0.2944	0.9384
Truck Mix Loading3	0.4608	1.4688	0.2944	0.9384
Paved Haulroads4	0.000	0.000	0.000	0.000
Unpaved Haulroads4	0.3077	1.7252	0.0908	0.5093
Wind Erosion from Storage Piles5	0.0410	0.0094	0.0192	0.0044
Total	2.12	9.36	1.11	4.74

1. Enter the potential to emit of PM and PM10 associated with the transfer of sand and aggregate from stockpiles to elevated bins. Use appropriate emission factors and/or equations from the CBP Emission Factor Sheet. Emission calculations may also be determined using spreadsheet G50ECALC. 2. Enter the potential to emit of PM and PM10 associated with the pneumatic transfer of cement and cement additive to storage structures or silos. Use appropriate emission factors and/or equations from the CBP Emission Factor Sheet. Emission calculations may also be determined using spreadsheet G50ECALC. 3. Enter the potential to emit of PM and PM10 associated with loading of weigh hopper(s), central mixer and trucks. Use appropriate emission factors and/or equations from the CBP Emission Factor Sheet. Emission calculations may also be determined using spreadsheet G50ECALC. 4. Enter the potential to emit of PM and PM10 associated with vehicle activity on paved or unpaved haulroad(s). Use appropriate emission factors and/or equations from the CBP Emission Factor Sheet. Emission calculations may also be determined using spreadsheet G50ECALC. 5. Enter the potential to emit of PM and PM10 associated with wind erosion from sand and aggregate stockpiles. Use appropriate emission factors and/or equations from the CBP Emission Factor Sheet. Emission calculations may also be determined using spreadsheet G50ECALC. 6. Attach all potential emission calculations/spreadsheet output to this CBP Emission Summary Sheet.

Attachment C

DESCRIPTION OF FUGITIVE EMISSIONS

Fugitive emission sources include: stockpiling of sand and gravel; storage loading of sand and gravel into belt hopper; batch drop of sand and gravel into weigh hopper; dropping of sand and gravel onto charging belt to truck charger hopper; wind erosion of sand and gravel, stock piles and vehicle travel. Sand and gravel contain a certain percentage of moisture, thus reducing emissions. No other control is applied.

Fugitive dust on haul roads shall be controlled by means of water tank truck. Water will be applied at a rate sufficient to control dust.

Attachment B

Process Description

Raw materials of gravel and sand are delivered via haul trucks and dumped into separate stockpiles. The front end loader transfers the sand and gravel to the belt hopper which feeds the raw materials into overhead storage bins via conveyor #1. The raw materials are batched into the weigh hopper at the appropriate mix proportion.

The cement is delivered via cement trucks and loaded into the cement and flyash bins via a 4" pneumatic line. The cement and flyash bins feed the cement weigh hopper (WH-2) to the proper mix proportion. The dust from the cement and flyash bins and the cement weigh hopper are fed into the baghouse for reuse.

The raw materials of gravel and sand are fed into truck chute via conveyor #2 where the cement and flyash are introduced. The truck chute feeds directly into the cement truck for delivery to the shaft for unload.

Please refer to the identification of the transfer and emission points in the table below.

Identification #	Affected Source Name	Air Pollution Control Device ID #	Air Pollution Control Device	Emission Point
1S	Truck to stockpile			1E
2S	Stockpile to front end loader			2E
3S	Front end loader to belt hopper			3E
4S	Hopper to conveyor			4E
5S	Conveyor #1 to overhead bins			5E
6S	Bin to weigh hopper			6E
7S	Weigh hopper to conveyor #2			7E
8S	Conveyor #2 to fixed chute			8E
8S	Fixed chute to truck mixer			9E
10	Truck to cement silo	1C	Baghouse	10E
11S	Truck to flyash silo			11E
12S	Cement Bin to Weigh Hopper	1C	Baghouse	12E
13S	Flyash Bin to Weight Hopper	1C	Baghouse	13E
14S	Weigh Hopper to Chute	1C	Baghouse	14E
9S	Chute to Cement Truck			9E

G50-B Emission Calculation Spreadsheets

For purposes of the General Permit for concrete batch plants, the following emission calculation methods will provide an adequate estimate of facility emissions from point sources and fugitive emission sources. However, where source (facility) specific tests are available, such information is preferable. Other emission factors may be acceptable provided documentation as to accuracy and appropriateness are provided by the applicant.

Completely fill out the following pages with all requested facility specific information.

R.G. Johnson Company, Inc.

Harrison County Mine, 7 North Portal

Please print out all pages of the completed spreadsheet and submit with Registration Application.

Revised 06/11/2007

Attachment I

General Permit G50-B Emission Calculation Spreadsheet G50ECALC for Concrete Batch Plants

BATCH DROP/CONTINUOUS DROP OPERATIONS

TRANSFER POINT	TRANSFER RATE TPH	TRANSFER RATE TPY	TYPE OF CONTROL	CONTROL EFFICIENCY	PM lb/hour	PM-10 lb/hour	PM TPY	PM-10 TPY
AGGREGATE TRANSFER EMISSIONS								
e=	0.0069 lb/ton (PM emission factor)			e=	0.0033 lb/ton (PM-10 emission factor)			
Dump truck to stockpile	80	19600			0.5520	0.2640	0.0676	0.0323
loader to stockpile	80	19600			0.5520	0.2640	0.0676	0.0323
loader to feed hopper	31	19600			0.2139	0.1023	0.0676	0.0323
hopper to conveyor	31	19600			0.2139	0.1023	0.0676	0.0323
conveyor to bin	31	19600			0.2139	0.1023	0.0676	0.0323
bin to scale hopper	31	19600			0.2139	0.1023	0.0676	0.0323
conveyor to mixer truck	31	19600			0.2139	0.1023	0.0676	0.0323
TOTAL AGGREGATE TRANSFER EMISSIONS					2.1735	1.0395	0.4733	0.2264
SAND TRANSFER EMISSIONS								
e=	0.0021 lb/ton (PM emission factor)			e=	0.0010 lb/ton (PM-10 emission factor)			
Dump truck to stockpile	80	13800			0.5520	0.2640	0.0476	0.0228
loader to stockpile	80	13800			0.5520	0.2640	0.0476	0.0228
loader to feed hopper	22	13800			0.1518	0.0726	0.0476	0.0228
hopper to conveyor	22	13800			0.1518	0.0726	0.0476	0.0228
conveyor to bin	22	13800			0.1518	0.0726	0.0476	0.0228
bin to scale hopper	22	13800			0.1518	0.0726	0.0476	0.0228
conveyor to mixer truck	22	13800			0.1518	0.0726	0.0476	0.0228
TOTAL SAND TRANSFER EMISSIONS					1.8630	0.8910	0.3333	0.1594

Attachment I

BATCH DROP/CONTINUOUS DROP OPERATIONS

TRANSFER POINT	TRANSFER RATE TPH	TRANSFER RATE TPY	TYPE OF CONTROL	CONTROL EFFICIENCY	PM lb/hour	PM-10 lb/hour	PM TPY	PM-10 TPY
CEMENT UNLOADING TO ELEVATED STORAGE SILO (PNEUMATIC)								
e= 0.7200 lb/ton (PM emission factor)				e=	0.4600 lb/ton (PM-10 emission factor)			
truck to cement silo	80	6400	BH	99	0.5760	0.3680	0.0230	0.0147
CEMENT SUPPLEMENT UNLOADING TO ELEVATED STORAGE SILO (PNEUMATIC)								
e= 3.1400 lb/ton (PM emission factor)				e=	1.1000 lb/ton (PM-10 emission factor)			
truck to cement silo					0.0000	0.0000	0.0000	0.0000
WEIGH HOPPER LOADING								
e= 0.0051 lb/ton (PM emission factor)				e=	0.0024 lb/ton (PM-10 emission factor)			
silo to cement weigh bin	10.2	6400		99	0.0734	0.0469	0.0230	0.0147
MIXER LOADING (CENTRAL MIX)								
e= 0.5440 lb/ton (PM emission factor)				e=	0.1340 lb/ton (PM-10 emission factor)			
cement weigh bin to truck	10.2	6400	TC-FE	80	1.4688	0.9384	0.4608	0.2944
TRUCK LOADING (TRUCK MIX)								
e= 0.9950 lb/ton (PM emission factor)				e=	0.2780 lb/ton (PM-10 emission factor)			
cement weigh bin to truck	10.2	6400	TC-FE	80	1.4688	0.9384	0.4608	0.2944
TOTAL CEMENT TRANSFER EMISSIONS					3.5870	2.2917	0.9677	0.6182
TOTAL TRANSFER EMISSIONS					**7.6235**	**4.2222**	**1.7743**	**1.0040**

Attachment I

UNPAVED HAULROADS - Aggregate Truck Sand & gravel

PM EMISSIONS			PM-10 EMISSIONS		
k	4.9	particle size multiplier (assumed)	k	1.5	particle size multiplier (assumed)
s	10	silt in road surface (%)	s	10	silt in road surface (%)
a	0.7	equation constant	a	0.9	equation constant
b	0.45	equation constant	b	0.45	equation constant
S	5	mean vehicle speed (mph)	S	5	mean vehicle speed (mph)
W	35	mean vehicle weight (tons)	W	35	mean vehicle weight (tons)
w	10	mean number of wheels	w	10	mean number of wheels
p	150	days of precipitation (assumed)	p	150	days of precipitation (assumed)
e	13.0285	LB/VMT	e	3.8455	LB/VMT
TRAVEL	0.1100	VMT/HOUR	TRAVEL	0.1100	VMT/HOUR
TRAVEL	70.9000	VMT/YR	TRAVEL	70.9000	VMT/YR
CONTROLS	70	control efficiency (%)	CONTROLS	70	control efficiency (%)
EMISSIONS	**0.4299**	**lb/hour**	**EMISSIONS**	**0.1269**	**lb/hour**
EMISSIONS	**0.1386**	**TPY**	**EMISSIONS**	**0.0409**	**TPY**

PAVED HAULROADS - Aggregate Trucks Sand & gravel

PM EMISSIONS			PM-10 EMISSIONS		
k	0.082	base emission factor for particle	k	0.016	particle size multiplier (assumed)
sL	70	road surface silt load. (g/m^2)	s	70	silt in road surface (%)
W		mean vehicle weight (tons)	W		mean vehicle weight (tons)
P		# of wet days with at least 0.01" precip	P		# of wet days with at least 0.01" precip
C	0.00047	emission factor for brake/tire wear	C	0.00047	emission factor for brake/tire wear
N	365	# of days in averaging period	N	365	# of days in averaging period
e	-0.0005	LB/VMT	e	-0.0005	LB/VMT
TRAVEL		VMT/HOUR	TRAVEL		VMT/HOUR
TRAVEL		VMT/YR	TRAVEL		VMT/YR
CONTROLS	0	control efficiency (%)	CONTROLS	0	control efficiency (%)
EMISSIONS	**0.0000**	**lb/hour**	**EMISSIONS**	**0.0000**	**lb/hour**

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EMISSIONS	**0.0000**	**TPY**	**EMISSIONS**	**0.0000**	**TPY**

Attachment I

UNPAVED HAULROADS - Cement Tanker

PM EMISSIONS			PM-10 EMISSIONS		
k	4.9	particle size multiplier (assumed)	k	1.5	particle size multiplier (assumed)
s	10	silt in road surface (%)	s	10	silt in road surface (%)
a	0.7	equation constant	a	0.9	equation constant
b	0.45	equation constant	b	0.45	equation constant
S	5	mean vehicle speed (mph)	S	5	mean vehicle speed (mph)
W	35	mean vehicle weight (tons)	W	35	mean vehicle weight (tons)
w	18	mean number of wheels	w	18	mean number of wheels
p	150	days of precipitation (assumed)	p	150	days of precipitation (assumed)
e	13.0285	LB/VMT	e	3.8455	LB/VMT
TRAVEL	0.1100	VMT/HOUR	TRAVEL	0.1100	VMT/HOUR
TRAVEL	11.8000	VMT/YR	TRAVEL	11.8000	VMT/YR
CONTROLS	70	control efficiency (%)	CONTROLS	70	control efficiency (%)
EMISSIONS	**0.4299**	**lb/hour**	**EMISSIONS**	**0.1269**	**lb/hour**
EMISSIONS	**0.0231**	**TPY**	**EMISSIONS**	**0.0068**	**TPY**

PAVED HAULROADS - Cement Tanker

PM EMISSIONS			PM-10 EMISSIONS		
k	0.082	base emission factor for particle	k	0.016	particle size multiplier (assumed)
sL	70	road surface silt load. (g/m^2)	s	70	silt in road surface (%)
W		mean vehicle weight (tons)	W		mean vehicle weight (tons)
P		# of wet days with at least 0.01" precip	P		# of wet days with at least 0.01" precip
C	0.00047	emission factor for brake/tire wear	C	0.00047	emission factor for brake/tire wear
N	365	# of days in averaging period	N	365	# of days in averaging period
e	-0.0005	LB/VMT	e	-0.0005	LB/VMT
TRAVEL		VMT/HOUR	TRAVEL		VMT/HOUR
TRAVEL		VMT/YR	TRAVEL		VMT/YR
CONTROLS	0	control efficiency (%)	CONTROLS	0	control efficiency (%)
EMISSIONS	**0.0000**	**lb/hour**	**EMISSIONS**	**0.0000**	**lb/hour**

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EMISSIONS	**0.0000**	**TPY**	**EMISSIONS**	**0.0000**	**TPY**

UNPAVED HAULROADS - Concrete Mixer

PM EMISSIONS			PM-10 EMISSIONS		
k	4.9	particle size multiplier (assumed)	k	1.5	particle size multiplier (assumed)
s	10	silt in road surface (%)	s	10	silt in road surface (%)
a	0.7	equation constant	a	0.9	equation constant
b	0.45	equation constant	b	0.45	equation constant
S	1	mean vehicle speed (mph)	S	1	mean vehicle speed (mph)
W	30	mean vehicle weight (tons)	W	30	mean vehicle weight (tons)
w	10	mean number of wheels	w	10	mean number of wheels
p	150	days of precipitation (assumed)	p	150	days of precipitation (assumed)
e	12.1554	LB/VMT	e	3.5878	LB/VMT
TRAVEL	0.1100	VMT/HOUR	TRAVEL	0.1100	VMT/HOUR
TRAVEL	35.5000	VMT/YR	TRAVEL	35.5000	VMT/YR
CONTROLS	70	control efficiency (%)	CONTROLS	70	control efficiency (%)
EMISSIONS	**0.4011**	**lb/hour**	**EMISSIONS**	**0.1184**	**lb/hour**
EMISSIONS	**0.0647**	**TPY**	**EMISSIONS**	**0.0191**	**TPY**

PAVED HAULROADS - Concrete Mixer

PM EMISSIONS			PM-10 EMISSIONS		
k	0.082	base emission factor for particle	k	0.016	particle size multiplier (assumed)
sL	70	road surface silt load. (g/m^2)	s	70	silt in road surface (%)
W		mean vehicle weight (tons)	W		mean vehicle weight (tons)
P		# of wet days with at least 0.01" precip	P		# of wet days with at least 0.01" precip
C	0.00047	emission factor for brake/tire wear	C	0.00047	emission factor for brake/tire wear
N	365	# of days in averaging period	N	365	# of days in averaging period
e	-0.0005	LB/VMT	e	-0.0005	LB/VMT
TRAVEL		VMT/HOUR	TRAVEL		VMT/HOUR
TRAVEL		VMT/YR	TRAVEL		VMT/YR
CONTROLS	0	control efficiency (%)	CONTROLS	0	control efficiency (%)

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EMISSIONS	**0.0000**	**lb/hour**	**EMISSIONS**	**0.0000**	**lb/hour**
EMISSIONS	**0.0000**	**TPY**	**EMISSIONS**	**0.0000**	**TPY**

Attachment I

UNPAVED HAULROADS- Endloader

PM EMISSIONS			PM-10 EMISSIONS		
k	4.9	particle size multiplier (assumed)	k	1.5	particle size multiplier (assumed)
s	10	silt in road surface (%)	s	10	silt in road surface (%)
a	0.7	equation constant	a	0.9	equation constant
b	0.45	equation constant	b	0.45	equation constant
S	2	mean vehicle speed (mph)	S	2	mean vehicle speed (mph)
W	11	mean vehicle weight (tons)	W	11	mean vehicle weight (tons)
w	4	mean number of wheels	w	4	mean number of wheels
p	150	days of precipitation (assumed)	p	150	days of precipitation (assumed)
e	7.7391	LB/VMT	e	2.2843	LB/VMT
TRAVEL	0.2000	VMT/HOUR	TRAVEL	0.2000	VMT/HOUR
TRAVEL	70.0000	VMT/YR	TRAVEL	70.0000	VMT/YR
CONTROLS	70	control efficiency (%)	CONTROLS	70	control efficiency (%)
EMISSIONS	**0.4643**	**lb/hour**	**EMISSIONS**	**0.1371**	**lb/hour**
EMISSIONS	**0.0813**	**TPY**	**EMISSIONS**	**0.0240**	**TPY**

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STORAGE PILE- Sand

PM EMISSIONS			PM-10 EMISSIONS		
s	30	silt content (%)	s	30	silt content (%)
p	150	days of precipitation (assumed)	p	150	days of precipitation (assumed)
f	10	time the wind exceeds 12 mph (%)	f	10	time the wind exceeds 12 mph (%)
A	0.0300	surface area (acres)	A	0.0300	surface area (acres)
N	1	number of storage piles	N	1	number of storage piles
CONTROLS	75	%	CONTROLS	75	%
EMISSIONS	**0.0065**	**lb/hour**	**EMISSIONS**	**0.0030**	**lb/hour**
EMISSIONS	**0.0284**	**TPY**	**EMISSIONS**	**0.0133**	**TPY**

STORAGE PILE- Aggregate

PM EMISSIONS			PM-10 EMISSIONS		
s	10	silt content (%)	s	10	silt content (%)
p	150	days of precipitation (assumed)	p	150	days of precipitation (assumed)
f	10	time the wind exceeds 12 mph (%)	f	10	time the wind exceeds 12 mph (%)
A	0.0400	surface area (acres)	A	0.0400	surface area (acres)
N	1	number of storage piles	N	1	number of storage piles
CONTROLS	75	%	CONTROLS	75	%
EMISSIONS	**0.0029**	**lb/hour**	**EMISSIONS**	**0.0014**	**lb/hour**
EMISSIONS	**0.0126**	**TPY**	**EMISSIONS**	**0.0059**	**TPY**

Attachment I

EMISSIONS SOURCE SUMMARY

	PM EMISSIONS		PM-10 EMISSIONS	
Point Source Emissions	**lb/hour**	**TPY**	**lb/hour**	**TPY**
Transfer Point Emissions	7.62	1.77	4.22	1.00
Point Source Emissions Total	**7.62**	**1.77**	**4.22**	**1.00**
Fugitive Emissions	**lb/hour**	**TPY**	**lb/hour**	**TPY**
Unpaved Haulroad Emissions	1.73	0.31	0.51	0.09
Paved Haulroad Emissions	0.00	0.00	0.00	0.00
Stockpile Emissions	0.01	0.04	0.00	0.02
Fugitive Emissions Total	**1.73**	**0.35**	**0.51**	**0.11**
FACILITY EMISSIONS TOTAL	**9.36**	**2.12**	**4.74**	**1.11**