



west virginia department of environmental protection

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**GENERAL PERMIT REGISTRATION APPLICATION
ENGINEERING EVALUATION / FACT SHEET**

BACKGROUND INFORMATION

Registration No.: G50-B027A
Plant ID No.: 083-00106
Applicant: Central Supply Company of West Virginia
Facility Name: Elkins
Location: Elkins, Randolph County
SIC / NAICS Code: 3273 / 327320
Application Type: Class II Administrative Update
Received Date: August 30, 2016
Engineer Assigned: Thornton E. Martin Jr.
Fee Amount: \$300.00
Complete Date: September 30, 2016
Applicant Ad Date: September 01, 2016
Newspaper: *The Inter-Mountain*
UTM's: Easting: 599.901 km Northing: 4312.596 km Zone: 17
Description: Applicant proposes to add one single compartment silo for storage of slag and one screw conveyor to their existing Concrete Ready Mix facility.

PROCESS DESCRIPTION

Central Supply Company of West Virginia operates a Concrete Ready Mix facility located near Elkins in Randolph County. This plant can produce 120 cubic yards (CY) per hour and 240,000 cubic yards per year of concrete. This Class II Administrative Update is for the addition of a new silo (CS-3) for storage of slag to be used along with cement and flyash in the concrete mixture.

Cement and Flyash are stored in silos (CS-1) and (CS-2). Silos are controlled by filter vents (APCD-1 and APCD-2). Cement and flyash are transferred separately to storage silos by a pneumatic truck. A silo (CS-3) for storing slag will be transferred from the Saltwell Concrete Plant to the Elkins Concrete Batch Plant. This one compartment silo is controlled by a filter vent (APCD-4) and the slag is fed pneumatically into the silo.

Trucks drop aggregates and sand into two separate piles in three sided enclosures (E3-1 and E3-2). An endloader transfers sand or aggregate and drops the material into a hopper bin. The hopper bin drops the material onto a stationary conveyor stacker (SS-1).

The stationary conveyor stacker drops material into a stacking tube (ST) which in turn

passes the material to the Aggregate Batcher. The Aggregate Batcher drops material onto a second stationary conveyor/stacker (SS-2) which conveys the material into the telescopic chute.

A pneumatic truck loads flyash, cement and slag separately into silos. Filter vents attached to each silo control particulate matter emissions from the silos during loading. Materials from the silos are transferred to the cement/flyash/slag batcher (CS-1 through CS-3 contents are transferred by screw conveyors) which is controlled by APCD-3 and dropped into the telescopic chute where they are mixed with water. Materials in the telescopic chute are dropped into a mixer truck.

Central Supply Company of West Virginia proposes to utilize the following equipment at the Elkins, Randolph County, WV:

Table 1: Equipment List

Equipment ID No.	Description	Maximum Production Rate		Control Equipment ¹
		Hourly	Annual	
CBD-1	McNeilus Truck Aggregate Batcher	120 tons	240,000 tons/yr	APCD-3
SS-1	Conveyor / Stacker - hopper to batcher	120 tons	240,000 tons/yr	N
SS-2	Conveyor / Stacker - batcher to telescopic chute	120 tons	240,000 tons/yr	FE
Storage		Storage Capacity	Maximum Yearly Throughput	
E3-1	Three sided storage – Aggregate	250 tons	210,000 tons/yr	PE
E3-2	Three sided storage – Sand	250 tons	147,600 tons/yr	PE
CS-1	Silo – Cement	200 tons	64,800 tons/yr	FE/APCD-1
CS-2	Silo – Flyash	130 tons	7,200 tons/yr	FE/APCD-2
CS-3	Silo – Slag	50 tons	14,400 tons/yr	FE/APCD-4
T-1	Water Tank	5,000 gal	7,000,000 gal/yr	NA

¹ FE - Full Enclosure; PE - Partial Enclosure; NA - Not Applicable; N - None; APCD-1 - McNeilus Fabric Filter/Shaker Cleanout/270 ft² cloth area; APCD-2 - McNeilus Fabric Filter/Shaker Cleanout/15 ft² cloth area; APCD-3 - McNeilus Fabric Filter/Shaker Cleanout/270 ft² cloth area; APCD-4 - WAM SILOTOP Fabric Filter/Vibration Cleanout/264 ft² cloth area.

SITE INSPECTION

Karl Dettinger of the WVDAQ North Central Regional Office performed a full on-site, targeted inspection on September 04, 2014. Notes from the inspection are as follows: The unloading of cement into the silo was observed, and no V.E.s resulted from this operation. A truckload of sand was also unloaded into the stockpile at the facility, also with no V.E.s. Production of a 9 cubic yard batch was observed, and the only time any dust was observed was when the cement was transferred from the weigh batcher to the truck (this is accomplished via a rubber boot that extends to the truck tails). Dust was only visible for 1-2 minutes during the entire batch. The writer deemed that a site visit would not be necessary for this modification as the facility is regularly inspected.

Directions: Take Corridor H to main Elkins exit onto U.S. 219. Take first left onto old 219. Plant is less than 2 miles on the right..

ESTIMATE OF EMISSIONS

Fugitive emissions from haulroads will be controlled by the utilization of a water tank truck as needed. The emissions estimate were calculated by the Applicants' consultant and checked for completeness and accuracy by the writer.

Emission factors were derived from AP-42 Section 13.2.4 Aggregate Handling and Storage Piles; Pneumatic emission factors from AP-42 Chapter 11.12-2; and AP-42 Section 13.2.2 Unpaved Haulroads (December 2003).

The maximum controlled emissions for Central Supply Company of West Virginia's facility are summarized in the following table:

Table 2: G50-B027A Emissions Summary:

Emission Source	Controlled PM Emissions		Controlled PM ₁₀ Emissions		Controlled PM _{2.5} Emissions	
	lb/hour	TPY	lb/hour	TPY	lb/hour	TPY
Fugitive Emissions						
Unpaved Haulroad Emissions	1.22	0.17	0.36	0.05	0.04	0.01
Stockpile Emissions	0.00	0.00	0.00	0.00	0.00	0.00
Fugitive Emissions Total	<i>1.22</i>	<i>0.17</i>	<i>0.36</i>	<i>0.05</i>	<i>0.04</i>	<i>0.01</i>
Point Source Emissions						
Transfer Point Emissions	1.52	0.27	0.64	0.12	0.11	0.02
Point Source Emissions Total (PTE)	<i>1.52</i>	<i>0.27</i>	<i>0.64</i>	<i>0.12</i>	<i>0.11</i>	<i>0.02</i>
FACILITY EMISSIONS TOTAL	2.74	0.44	1.00	0.17	0.15	0.03

GENERAL PERMIT ELIGIBILITY

Central Supply Company of West Virginia's application for a concrete batch plant is eligible for a Class II General Permit registration G50-B because:

1. It has the SIC of 3273;
2. It is not a major source as defined in 45CSR14, 45CSR19 or 45CSR30;
3. It is not subject to 45CSR2, 45CSR3, 45CSR14, 45CSR16, 45CSR19, or 45CSR30;
4. It is not a cement manufacturing plant (NAICS 327310; SIC 3241), concrete pipe manufacturing plant (NAICS 327332; SIC 3272) or clay brick or structural clay tile manufacturing plant (NAICS 327121; SIC 3251);
5. It meets the definition of concrete batch plant set forth in DRAFT class II General Permit G50-B;
6. It does not incorporate:
 - a. A mine, quarry or crushing and screening operation;
 - b. A highwall truck dump;
 - c. A petroleum liquid storage vessel or tank greater than 39,889 gallons capacity; or
 - d. A petroleum liquid storage vessel or tank greater than or equal to 19,812 gallons capacity and a working true vapor pressure which exceeds 15.0 kPa (2.17 psia);
7. It will not require an individual air quality permit review process and/or individual permit provisions to address the emission of a regulated pollutant or to

- incorporate regulatory requirements other than those established by 45CSR7, 45CSR13, and 45CSR17;
8. It is not located in or does not significantly impact the area of Brooke County west of State Route 2, north of an extension of the southern boundary of Steubenville Township in Jefferson County, Ohio and south of the Market Street Bridge;
 9. It is not located within the boundaries of or which may significantly impact the Weirton nonattainment area; or
 10. It is not located in or which may significantly impact an area which has been determined to be a PM₁₀ maintenance or nonattainment area.

REGULATORY APPLICABILITY

NESHAPS and PSD have no applicability to the proposed facility. The proposed modification of a ready mix concrete batch plant is subject to the following state and federal rules:

45CSR7 To Prevent and Control Particulate Matter Air Pollution From Manufacturing Processes and Associated Operations

The facility is subject to the requirements of 45CSR7 because it meets the definition of “Manufacturing Process” found in subsection 45CSR7.2.20. The facility should be in compliance with Subsection 3.1 (no greater than 20% opacity), Subsection 3.7 (no visible emissions from any storage structure pursuant to subsection 5.1 which is required to have a full enclosure and be equipped with a control device), Subsection 4.1 (PM emissions shall not exceed those allowed under Table 45-7A), Subsection 5.1 (manufacturing process and storage structures must be equipped with a system to minimize emissions), Subsection 5.2 (minimize PM emissions from haulroads and plant premises) when the particulate matter control methods and devices proposed within application G50-B027A are in operation.

45CSR13 Permits for Construction, Modification, Relocation and Operation of Stationary Sources of Air Pollutants, Notification Requirements, Temporary Permits, General Permits, and Procedures for Evaluation

The proposed modification is subject to the requirements of 45CSR13. Since the potential to discharge is less than six (6) pounds per hour and ten (10) tons per year, and 144 pounds per day of a regulated air pollutant (PM, PM₁₀ and PM_{2.5}), the proposed modification requires a Class II Administrative Update. The applicant submitted an application fee of \$300 and published a Class I legal advertisement in the *The Inter-Mountain* on September 01, 2016.

45CSR17 To Prevent and Control Particulate Matter Air Pollution from Materials Handling, Preparation, Storage and Other Sources of Fugitive Particulate Matter

Per §45-17-3.1 no person shall cause, suffer, allow or permit fugitive particulate matter to be discharged beyond the boundary lines of the property on which the discharge originates or at any public or residential location, which causes or contributes to statutory air pollution.

45CSR22 Air Quality Management Fee Program

This rule establishes a program to collect fees for certificates to operate and for permits to construct, modify or relocate sources of air pollution. Funds collected from these fees

will be used to supplement the Director's budget for the purpose of maintaining an effective air quality management program.

TOXICITY OF NON-CRITERIA REGULATED POLLUTANTS

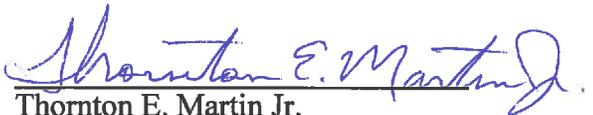
A toxicity analysis was not performed because the pollutants that will be emitted from this facility are PM (particulate matter), PM₁₀ (particulate matter less than 10 microns in diameter) and PM_{2.5} (particulate matter less than 2.5 microns in diameter), which are non-toxic pollutants.

AIR QUALITY IMPACT ANALYSIS

Air dispersion modeling was not performed due to the size and location of this facility and the limit of the proposed Modification. This facility will be located in Randolph County, WV, which is currently designated as attainment for PM_{2.5} (particulate matter less than 2.5 microns in diameter).

RECOMMENDATION TO DIRECTOR

The information contained in this modification application indicates that compliance with all applicable regulations should be achieved when all proposed particulate matter control methods are in operation. Due to the location, nature of the process, and control methods proposed, adverse impacts on the surrounding area should be minimized. Therefore, the granting of a G50-B registration to Central Supply Company of West Virginia for the modification of a concrete batch plant located near Elkins, Randolph County, WV is hereby recommended.


Thornton E. Martin Jr.
Permit Engineer

September 30, 2016

Date