

# Fact Sheet



## For Final Minor Modification Permitting Action Under 45CSR30 and Title V of the Clean Air Act

This Fact Sheet serves to address the changes specific to this Minor Modification, and shall be considered a supplement to the Fact Sheet corresponding with the Title V operating permit issued on January 19, 2012.

Permit Number: **R30-00300006-2012**

Application Received: **4/8/2014**

Plant Identification Number: **03-54-003-00006**

Permittee: **Essroc Cement Corporation**

Facility Name: **Martinsburg**

Mailing Address: **1826 South Queen Street, Martinsburg, WV 25401**

Permit Action Number: *MM03*    Revised: *October 31, 2014*

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Physical Location:	Martinsburg, Berkeley County, West Virginia
UTM Coordinates:	243.50 km Easting • 4369.00 km Northing • Zone 18
Directions:	Take south Queen Street Exit off of WV State Route 45 at Martinsburg. The facility is 0.5 miles south at the end of Queen Street.

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### Facility Description

Essroc Cement Corporation owns and operates a cement manufacturing plant, which is characterized by SIC Codes 3241 and 1422. The plant operates a preheater/precalciner (PH/PC) kiln system that uses primary coal and petcoke. The PH/PC kiln produces cement clinker, an intermediary product of cement, which is then ground into finished cement. The nominal capacity of the plant is 2,212,890 short tons (stons) per year of clinker. Essroc uses approximately 292,110 stons of coal annually and fly ash from electric power plants. Essroc also has the ability to burn petroleum hydrocarbon contaminated soils that were generated onsite in the PH/PC cement kiln. The facility has the potential to operate twenty-four (24) hours a day, seven (7) days per week, and fifty-two (52) weeks per year. With this modification, Essroc is proposing to modify four permitted baghouses and decommission two existing baghouses at the plant.

**Emissions Summary**

The emissions increases associated with this modification are as follows:

<b>Pollutant</b>	<b>Change in PTE (TPY)</b>
PM	+0.61
PM <sub>10</sub>	+0.52
PM <sub>2.5</sub>	+0.18

**Title V Program Applicability Basis**

With the proposed changes associated with this modification, this facility maintains the potential to emit 4,436.95 tpy of CO; 4,009.59 tpy of NO<sub>x</sub>; 599.11 tpy of PM<sub>10</sub>; 4,507.9 tpy of SO<sub>2</sub>; and 156.32 tpy of VOC. Due to this facility's potential to emit over 100 tons per year of criteria pollutant, Essroc Cement Corporation is required to have an operating permit pursuant to Title V of the Federal Clean Air Act as amended and 45CSR30.

**Legal and Factual Basis for Permit Conditions**

The State and Federally-enforceable conditions of the Title V Operating Permits are based upon the requirements of the State of West Virginia Operating Permit Rule 45CSR30 for the purposes of Title V of the Federal Clean Air Act and the underlying applicable requirements in other state and federal rules.

The modification to this facility has been found to be subject to the following applicable rules:

Federal and State:	45CSR7	To Prevent and Control Particulate Matter Air Pollution from Manufacturing Processes and Associated Operations.
	45CSR13	Construction/modification permits
	45CSR16	Standards of Performance for New Stationary Sources Pursuant to 40 C.F.R. Part 60
	45CSR30	Operating permit requirement
	45CSR34	Emission Standards for Hazardous Air Pollutants.
	40 C.F.R. 60 Subpart OOO	NSPS Nonmetallic Mineral Processing Plants
	40C.F.R. 63 Subpart LLL	National Emission Standard for Hazardous Air Pollutants from the Portland Cement Manufacturing Industry.
State Only:	None	

Each State and Federally-enforceable condition of the Title V Operating Permit references the specific relevant requirements of 45CSR30 or the applicable requirement upon which it is based. Any condition of the Title V permit that is enforceable by the State but is not Federally-enforceable is identified in the Title V permit as such.

The Secretary's authority to require standards under 40 C.F.R. Part 60 (NSPS), 40 C.F.R. Part 61 (NESHAPs), and 40 C.F.R. Part 63 (NESHAPs MACT) is provided in West Virginia Code §§ 22-5-1 *et seq.*, 45CSR16, 45CSR34 and 45CSR30.

### Active Permits/Consent Orders

Permit or Consent Order Number	Date of Issuance	Permit Determinations or Amendments That Affect the Permit (if any)
R14-0026J	8/19/2014	

Conditions from this facility's Rule 13 permit(s) governing construction-related specifications and timing requirements will not be included in the Title V Operating Permit but will remain independently enforceable under the applicable Rule 13 permit(s). All other conditions from this facility's Rule 13 permit(s) governing the source's operation and compliance have been incorporated into this Title V permit in accordance with the "General Requirement Comparison Table," which may be downloaded from DAQ's website.

### Determinations and Justifications

#### Description of Changes Made at the Facility

Essroc is proposing to modify four permitted baghouses and decommission two existing baghouses at the plant.

The four modified baghouses will be used to control fugitive particulate matter from existing process equipment associated with the West Bank Silos. Although previously permitted, these four baghouses were never constructed. The plant is now planning to proceed with the construction and operation, but with slight modifications. Currently the West Bank Cement Silos have five permitted baghouses associated with their operation:

- CD22.04 - West Bank Silos (8,769 dscfm)
- CD22.05 - West Bank Silos #71 (1,000 dscfm)
- CD22.06 - West Bank Silos #72 (1,000 dscfm)
- CD22.07 - West Bank Silos #82 (1,000 dscfm)
- CD22.08 - West Bank Silos #83 (1,000 dscfm)

CD22.04 is the only baghouse out of the five that is currently operational; it is an older baghouse that the plant plans to decommission. The proposed modifications will involve modifying CD22.05 through CD22.08 to provide improved fugitive particulate matter control efficiency for the West Bank Silos. Specifically, the baghouses will be modified as follows:

- CD22.05 - West Bank Silos #70/71 (7,357 dscfm)
- CD22.06 - West Bank Silos #72 (7,357 dscfm)
- CD22.07 - West Bank Silos #84 (7,357 dscfm)
- CD22.08 - West Bank Silos Loadout Spout (3,200 dscfm)

In addition, the plant is also planning to decommission CD43.02, the Clinker Cooler Discharge DC. The gases from the clinker cooler that are vented to this baghouse are at such a high temperature that they are burning up the bags in the baghouse. Attempts by the plant to use water sprays to lower the temperature of the gas have resulted in a higher moisture content of the gas which causes clinker to build up within the bags. As a result, the plant is proposing to decommission this baghouse and install new piping to the main clinker cooler air duct. Process air from the clinker cooler will be used to provide negative pressure and the air previously vented to the CD43.02 will instead go to the clinker cooler cyclones and eventually through the main kiln baghouse and out the kiln stack. No increase to the size of the clinker cooler cyclones or main baghouse is proposed for this modification, just additional piping.

In summary, the plant is proposing to decommission CD22.04 and CD43.02; and modify CD22.05 through CD22.08 to control the West Bank Silos operations.

### **Changes Made to This Permit**

To facilitate the changes previously described, the following changes were made to this Title V permit:

- Information for Baghouses CD22.05-22.08 was updated in the Emission Units Table.
- All references to CD22.04 and CD43.02 were removed from the Emission Units Table and conditions 4.1.24 and 4.1.47.
- Condition 4.1.2 was revised to reflect new facility-wide PM<sub>2.5</sub> PM<sub>10</sub>, and TSP emission limits (condition A.2 of R14-0026J).
- The following limits were added to condition 4.1.22 (Condition A.15 of R14-0026J):
  - The NO<sub>x</sub> limit for the preheater-precalciner kiln is 2.15 lb/ton clinker. It will be averaged using a 30-day rolling average, and compliance will be determined through CEM/production data.
  - The SO<sub>2</sub> limit for the preheater-precalciner kiln is 1.50 lb/ton clinker. It will be averaged using a 30-day rolling average, and compliance will be determined through CEM/production data
- Condition 4.1.24 was revised changing Group 3 emissions of TSP from 280.09 tpy to 279.29 tpy and emissions of PM<sub>10</sub> from 235.27 tpy to 234.59 tpy (Condition A.16 of R14-0026J).
- The following changes were made to condition 4.1.47 (Condition A.26 of R14-0026J):
  - CD22.05, CD22.06, CD22.07, and CD22.08 were changed from “new” to “modified”.
  - The CD descriptions for CD22.05, CD22.07, and CD22.08 were revised to match the changes made in the Emission Units Table.
  - Group 7 emissions of TSP were revised from 67.00 tpy to 68.41 tpy and emissions of PM<sub>10</sub> from 56.99 tpy to 58.18 tpy.

### **Non-Applicability Determinations**

The following requirements have been determined not to be applicable to the subject facility due to the following:

***45CSR14—Permits for construction and Major Modification of Major Stationary Sources of Air Pollution for the Prevention Of Significant Deterioration:*** the emission increase from this project is not “significant” as defined in 45CSR14.

### **Request for Variances or Alternatives**

None.

### **Insignificant Activities**

Insignificant emission unit(s) and activities are identified in the Title V application.

### **Comment Period**

Beginning Date: N/A  
Ending Date: N/A

### **Point of Contact**

All written comments should be addressed to the following individual and office:

Rex Compston, P.E.  
West Virginia Department of Environmental Protection  
Division of Air Quality  
601 57<sup>th</sup> Street SE  
Charleston, WV 25304  
Phone: 304/926-0499 ext. 1209 • Fax: 304/926-0478  
[Rex.E.Compston@wv.gov](mailto:Rex.E.Compston@wv.gov)

### **Procedure for Requesting Public Hearing**

During the public comment period, any interested person may submit written comments on the draft permit and may request a public hearing, if no public hearing has already been scheduled. A request for public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing. The Secretary shall grant such a request for a hearing if he/she concludes that a public hearing is appropriate. Any public hearing shall be held in the general area in which the facility is located.

### **Response to Comments (Statement of Basis)**

Not applicable.