

West Virginia Department of Environmental Protection
Division of Air Quality



Title V Operating Permit Revision

Earl Ray Tomblin
Governor

Randy C. Huffman
Cabinet Secretary

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

Permit Action Number: MM04 **SIC:** 3241, 1422
Name of Permittee: Essroc Cement Corporation
Facility Name/Location: Martinsburg
County: Berkeley
Facility Address: 1826 South Queen Street, Martinsburg, WV 25401

Description of Permit Revision: The purpose of this modification is to facilitate the installation of a new alternative fuel feeding system permitted under R14-0026K.

Initial Title V Permit Information:

Permit Number: R30-00300006-2012
Effective Date: February 2, 2012
Expiration Date: January 19, 2017

Directions To Facility: 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.

THIS PERMIT REVISION IS ISSUED IN ACCORDANCE WITH THE WEST VIRGINIA AIR POLLUTION CONTROL ACT (W.VA. CODE §§ 22-5-1 ET SEQ.) AND 45CSR30 - "REQUIREMENTS FOR OPERATING PERMITS." THE PERMITTEE IDENTIFIED AT THE FACILITY ABOVE IS AUTHORIZED TO OPERATE THE STATIONARY SOURCES OF AIR POLLUTANTS IDENTIFIED HEREIN IN ACCORDANCE WITH ALL TERMS AND CONDITIONS OF THIS PERMIT.

A handwritten signature in blue ink, appearing to read "William F. Durham".

William F. Durham
Director

A handwritten date in blue ink, "3-27-2015", written above a horizontal line.

Date Issued

Emission Unit ID	Emission Unit Description	Year Installed or Modified	Design or Nominal Capacity	Control Device	Associated Emissions Points		
					ID No	Transfer Description	Fugitive Dust Control System/ Control Device ⁽¹⁾
EP25.12	Gypsum/Synthetic Gypsum Haul Roads (paved)	2009	150,879 TPY	DSWS	None	None	None
EP25.14	Gypsum/Synthetic Gypsum Haul Road (unpaved)	2009	150,879 TPY	DSWS	None	None	None
EP42.06.01	Lime deliveries (unpaved)	2009	77,161 TPY	DSWS	None	None	None
EP42.06.02	Lime deliveries (paved)	2009	77,161 TPY	DSWS	None	None	None
EP50.01	Quarry Diesel Tank	2009	15,000 gal				None
EP50.02	Light Oil Tank	2009	64,500 gal				None
EP50.03	Grinding Aid Tank	2009	10,600 gal				None
EP50.04	Air Entrainment Tank	2009	5,300 gal				None

Alternative Fuel Feeding System							
EP25.15	Alternative Fuel Trucks (Paved)	2014	38,581 TPY	WS			
CD41.04	Alternative Fuel Feeding System D/C	2014	38,581 TPY	CD42.04			Baghouse
CD41.05	Alternative Fuel Dosing System D/C	2014	38,581 TPY	CD42.04			Baghouse

- (1) Transfer points (TP) have the same type of fugitive dust control system as the associated conveyors unless otherwise noted. Fugitive Dust Control System / Control Device abbreviations: FE = Full Enclosure, FE/FE = Full Enclosure in Building, PE = Partial Enclosure, NE = No Enclosure, WT = Water Truck, WS = Water Spray, MD = Minimization of Material Drop, DSWS = Dust Suppressant by Water Spray, DSCS = Dust Suppression by Chemical Stabilization/ Wetting, TBD = To Be Determined, TPH = Tons per hour, VMT = Vehicle Miles Traveled.
- (2) Temperature value limits established by stack testing.

1.2. Active R13, R14, and R19 Permits

The underlying authority for any conditions from R13, R14, and/or R19 permits contained in this operating permit is cited using the original permit number (e.g. R13-1234). The current applicable version of such permit(s) is listed below.

Permit Number	Date of Issuance
R14-026JK	August 19, 2014 December 19, 2014

4.0. Source-Specific Requirements [Modern Preheater-Precalciner Kiln System and related Equipment (EU1 through EU8)]

4.1. Limitations and Standards

PLANT AREAS

The existing and modified parts of the plant is categorized into the following groups:

- Group 1: Quarry and Crushing --- EU1
- Group 2: Raw Material Preparation --- EU2
- Group 3: Pyroprocessing --- EU3
- Group 4: Clinker Handling and Storage --- EU4
- Group 5: Fuel Handling --- EU5
- Group 6: Cement Production --- EU6
- Group 7: Shipping --- EU7
- Group 8: Other Miscellaneous Sources --- EU8

Facility Wide Requirements

4.1.1. Clinker production from the facility shall not exceed 2,212,890 short tons per year. Compliance with the annual production limit shall be determined using a 12 month rolling total. A 12 month rolling total shall mean the sum of the clinker production at any given time for the previous twelve (12) consecutive calendar months.

[45CSR14, R14-026, A.1., Preheater-Precalciner Kiln (EP42.04)]

4.1.2. Emissions from the facility shall not exceed the following based on a rolling yearly total. A rolling yearly total shall mean the sum of the emissions at any given time for the previous twelve-(12) consecutive calendar months.

Pollutant	Allowable Emissions (TPY)
PM _{2.5}	227.589
PM ₁₀	599.114
TSP	936.1026
SO ₂	4,507.90
NO _x (as NO ₂)	4,009.59
CO	4,436.95
VOC	156.32
Fluorides	1.02
Lead	0.08

[45CSR14, R14-026, A.2.]

4.1.3. During periods of startup, shutdown and malfunctions, the source shall follow the procedures found in the site specific Startup, Shutdown, and Malfunction plan as required by 40 C.F.R. Part 63 Subpart LLL.

[45CSR34, 40 C.F.R. §63.6 (e), 45CSR14, R14-026, A.3., See Section 3.2.12.]

Source	Pollutant	Allowable	Compliance Method	Averaging Time
PH/PC Kiln System	SO ₂	3,230.8 TPY	CEM	TPY, 12 month rolling total
PH/PC Kiln System	SO ₂	2111.3 LB/hr	CEM	3-hr average (LB/hr)
PH/PC Kiln System	SO ₂	1.50 lb/ton clinker	CEM/production data	30-day rolling average
PH/PC Kiln System	TSP	268.1 TPY	Stack Test / production data	TPY, 12 month rolling total
PH/PC Kiln System	PM ₁₀	225.2 TPY	Stack Test / production data	TPY, 12 month rolling total
PH/PC Kiln System	TSP	69.8 LB/hr	Stack Test	Average (3) 1-hr tests
PH/PC Kiln System	PM ₁₀	58.6 LB/hr	Stack Test	Average (3) 1-hr tests
PH/PC Kiln System	Opacity	10%	COM	6-minute block average
PH/PC Kiln System	Pb	0.08 TPY	Production data	TPY, 12 month rolling total
PH/PC Kiln System	Fluorides	1.0 TPY	Production data	TPY, 12 month rolling total

[45CSR14, R14-026, A.15., Preheater-Precliner Kiln (EP42.04)]

4.1.23. Reserved.

4.1.24. Emissions from the Group 3 point sources shall not exceed the following:

CD Identification Number	CD Description	Outlet Loading (gr/dscf)	Existing Or New
CD41.04	Alternative Fuel Feeding System D\C	0.01	New
CD41.05	Alternative Fuel Dosing System D\C	0.01	New
CD42.04	Inline Raw Mill PH-PC Kiln/Clinker Cooler & Bypass & Coal Mill D\Cs	0.01	New
CD42.02	Kiln Feeding Bucket Elevator D\C	0.01	New
CD42.03	Kiln Feeding D\C1	0.01	New
CD42.05	Kiln Feeding D\C2	0.01	New
CD42.01	Cement Fringe Bin D\C	0.01	New
CD42.06	Lime Storage D\C	0.01	New
CD42.07	Bypass Truck Spout Dedusting	0.01	New

Emissions from the Group 3 fugitive sources shall not exceed the following:

Emission Point Identification Number	Emission Point Description	TSP (tpy)	PM ₁₀ (tpy)
EP42.09	Reburn Hopper System	0.32	0.15

Emission Point Identification Number	Emission Point Description	TSP (TPY)	PM ₁₀ (TPY)
EP0X.04	Crusher feed pile	0.50	0.25
EP0X.05	Quarry waste pile	0.07	1.04
EP0X.06	New Crusher Feed Pile	1.00	0.50
EP03.01	Storage Bays - 5 Piles	0.35	0.18
EP26.05	Gypsum/synthetic gypsum storage pile (Craneway)	0.05	0.03
EP26.08	Limestone Storage Pile (Craneway)	0.05	0.03
EP15.04.03	Coal storage Pile (Craneway)	0.03	0.01
EP15.04.04	Petcoke Storage Pile (Craneway)	0.03	0.01
EP14.08	Clinker Stockpile (Craneway)	0.02	0.01
EP25.01	Quarry haul roads (New Crusher)	203.90	60.18
EP25.02	Quarry haul roads (Old Crusher)	7.99	2.36
EP25.03	Quarry haul roads (waste)	15.10	4.46
EP25.05.01	Additive trucks (unpaved)	0.00	0.00
EP25.05.02	Additive trucks (paved)	0.42	0.08
EP25.14	Gypsum/Synthetic Gypsum Haul Road (Unpaved)	14.86	4.39
EP25.12	Gypsum/Synthetic Gypsum Haul Road (paved)	0.25	0.05
EP25.15	Alternative Fuel Trucks (paved)	0.16	0.03
EP25.04.02	Cement Shipments (paved)	7.47	1.46
EP25.06.01	Fuel deliveries (unpaved)	0.00	0.00
EP25.06.02	Fuel deliveries (paved)	0.67	0.13
EP25.09.01	Dry Flyash trucks (for Cement, unpaved)	0.98	0.29
EP25.09.02	Dry Flyash trucks (for Cement, paved)	0.61	0.12
EP25.09.03	Dry Flyash trucks (for Calciner, unpaved)	14.39	4.25
EP25.09.04	Dry Flyash trucks (for Calciner, paved)	0.48	0.09
EP25.10.01	Waste dust customer trucks (unpaved)	3.43	1.01
EP25.10.02	Waste dust customer trucks (paved)	0.21	0.04
EP25.08	Misc. plant vehicles (unpaved)	6.90	2.04
EP25.07	Waste Dust Trucks (unpaved)	30.63	9.04

Emission Point Identification Number	Emission Point Description	TSP (TPY)	PM ₁₀ (TPY)
EP42.06.01	Lime Deliveries (unpaved)	0.00	0.00
EP42.06.02	Lime Deliveries (paved)	0.35	0.07

Additionally, emissions from the combined above sources (both point and fugitive) shall not exceed 313.5268 tons per year of TSP nor 95.114 tons per year of PM₁₀ based on a 12 month rolling total. Compliance with 45CSR§7-4.1 will be shown by more the stringent requirements of Section 4.1.48.

[45CSR14, R14-026, A.30.; 45CSR§7-4.1.]

4.2. Monitoring Requirements

Facility Wide Requirements

4.2.1. See Section 3.2.

4.2.2. At the request of the Director the owner and/or operator of a source shall install such stack gas monitoring devices as the Director deems necessary to determine compliance with the provisions of 45CSR§10-8.2.a. The data from such devices shall be readily available at the source location or such other reasonable location that the Director may specify. At the request of the Director, or his or her duly authorized representative, such data shall be made available for inspection or copying. Failure to promptly provide such data shall constitute a violation of 45CSR10.
[45CSR§10-8.2.a., EP42.04]

Quarry and Crushing and Raw Material Preparation - - - EU1 and EU2

4.2.3. No additional requirements.

Pyroprocessing - - - EU3

4.2.4. A continuous emission monitoring system (CEMS) shall be installed, operated, and maintained to measure the emissions of SO₂, NO_x, THC and CO from the preheater-precalciner kiln system exhaust stack. The CEMS shall be installed within 180 days of startup of the pyroprocessing line, and operated in compliance with the USEPA Part 60, Appendix B, Performance Specification 2 (NO_x and SO₂) and Performance Specification 4, 4a or 4b (CO) as appropriate.
[45CSR14, R14-026, B.11.]

4.2.5. A continuous opacity monitoring system (COMS) shall be installed, operated, and maintained to measure the opacity from the preheater-precalciner kiln system exhaust stack. The COMS shall be installed within 180 days of startup of the pyroprocessing line, and operated as outlined in Section 4.2.12. [40 C.F.R. §63.1350(f)].
[45CSR14, R14-026, B.12.; 40 C.F.R. §60.64(b)(4); 45CSR16]

4.2.6. Monitoring requirements.

- a. Any owner or operator of an kiln subject to 45CSR§40-100 must complete an initial performance test and subsequent annual testing consistent with the requirements of 40 CFR Part 60, appendix A, method 7, 7A, 7C, 7D or 7E;