



**J.H. Campbell Generating Complex
Integrated Fugitive Dust Plan
SRN: B2835**

**17000 Croswell
West Olive, MI**

**Version 3.0
February 2018**

1.0 INTRODUCTION

The J.H. Campbell Generating Complex is located in West Olive, Michigan and operates three coal fired boilers for electric power generation. The site Renewable Operating Permit (ROP) MI-ROP-B2835-2013b requires Consumers Energy (CE) to maintain a fugitive dust control plan approvable by the Michigan Department of Environmental Quality (MDEQ). Permit to install (PTI) 18-15 for the Air Quality Control Systems (AQCS) also contains a requirement to develop and submit a fugitive dust plan that contains measures to minimize fugitive dust from the material handling operations.

In 2015, the Coal Combustion Residuals (CCR) regulation was promulgated which also requires a fugitive dust plan to be implemented for all operations that handle CCR material (40 CFR 257 .80). The “CCR Fugitive Dust Plan” was originally posted to the Consumers Energy Public Website in December of 2015, with notice to the MDEQ Waste Division, as required in the regulation.

This Integrated Fugitive Dust Plan combines the ROP/PTI required plan with the CCR plan and reflects the current equipment and operating practices as well as the general plan to control fugitive dust related to the material handling equipment. This plan does not address point source emission regulations. The following sections outline the fugitive dust control program for each operational activity in accordance with Michigan Rules 336.1371 and 336.13712.

- Coal Handling (EUCOALHAND)
- Material Handling Operations, comprised of:
 - Spray Dryer Absorber (SDA) operations for Unit 3 (EUSDA_U3),
 - Dry Sorbent Injection (DSI) Material Handling for Units 1 and 2 (EUDSI_U12),
 - Activated Carbon Injection (ACI) for Units 1, 2, and 3 (EUACI_U123), and
- Coal Combustion Residual, ash byproduct operations for Units 1, 2, and 3 (EUBYPRODUCT)

Coal handling operations consist of rail car delivery, transfer, and storage of coal as the main fuel for the electric generating boilers. Bottom ash and fly ash are byproducts of burning coal. The fly ash is collected in the particulate matter control equipment [pulse jet fabric filters (PJFF)], which also collect the spent and un-spent sorbents which are used in the add-on air pollution control for mercury and acid gases. The fly ash byproduct is disposed of on site, in the licensed landfill. The ash byproduct (both bottom and fly) is formally defined as a Coal Combustion Residual (CCR) in the Resource Conservation and Recovery Act (RCRA) regulations.

2.0 COAL HANDLING

Described in this section are the fugitive dust control measures to minimize air emissions applicable to the coal handling facility (EUCOALHAND). The coal handling system consists of two (2) dumper buildings, transfer conveyors, transfer building, breaker house, bunker rooms, and the coal pile storage area itself. Dust suppression, enclosures and dust collectors are used in order to reduce and/or minimize any particulate emissions. Dust suppression includes suppressants added to the coal and/or roadways. Dust control includes various enclosures and eleven (11) associated coal handling fabric filter dust collectors.

2.1 Fuel Handling Control Measures

- a. Units 1&2 and Unit 3 reclaim hoppers are equipped with telescopic chutes which raise and lower at the same level as the coal piled over the hoppers. The maximum drop height shall be managed to minimize the exposure of the coal to prevent wind dusting. The proper operation of the telescopic chute will be checked once daily when operating and work notifications will be submitted if repairs are necessary.
- b. The orientation of the boom conveyor on the stacker/reclaimer will be managed to minimize the exposure of the coal to wind.
- c. Dust suppression chemical/water mix shall be applied to the western coal streams on the 10B and 17A unloading conveyors, as needed. This chemical acts as a wetting agent and provides residual control of dust after the coal is stockpiled and as it is reclaimed from the pile for burning in the plant boilers.
- d. The coal piles shall be routinely shaped and compacted to prevent wind erosion. The water sprinkling system for the western coal pile and surrounding roads shall actuate according to the seasonal sprinkler operation plan, except during freezing weather. The irrigation system controller shall be operated in "automatic" unless the program is overridden to "manual" under the direction of the Fuel Handling Supervisor.
- e. Once per day when in operation, the following shall be monitored:
 - i. use of dust control chemicals,
 - ii. availability and proper use of equipment such as telescopic chutes,
 - iii. use of water sprinkling systems,
 - iv. weather conditions,
 - v. Observations and/or actions resulting from visual inspection for dust along the coal pile perimeter.
- f. For each full train, the facility shall verify that operations were conducted properly including:
 - i. use of dust control chemicals,
 - ii. availability and use of equipment such as telescopic chutes,
 - iii. Observations and/or actions resulting from visual inspection for dust around the dumper table or telescopic chute.
- g. Stack out and reclaim of western coal shall be minimized when reasonable alternatives are available. Western coal trains shall be unloaded in a manner that allows direct fueling of the plants when possible.
- h. The use of track dozers shall be minimized if rubber tire dozers are available and appropriate for the job.
- i. Pushing coal out onto the storage pile in dry, high wind conditions shall be minimized.
- j. Coal dust from the DC 5 and DC 11 dust collectors shall be discharged to the Units 1&2 coal bunkers when operational.

3.0 MATERIAL HANDLING OPERATIONS

The Spray Dryer Absorber (SDA) for Unit 3 is a flue gas desulfurization system utilized to control sulfur dioxide and acid gas emissions. All emission points in SDA operations are permitted in emission group EUSDA_U3 in the facility ROP. The emission units that comprise EUSDA_U3 are: three (3) pebble lime silos, three (3) lime slurry storage tanks, two (2) by-product recycle day bins, and four (4) recycle mix tanks, are controlled by appropriately designed bin vent filters, wet scrubbers, or filter separators.

Dry Sorbent Injection (DSI) is utilized to control sulfur dioxide and acid gas emissions from the Unit 1 and 2 boilers. The sorbent storage silos comprise the emission unit group designated as EUDSI_U12 in the facility ROP. The sorbent is delivered to the facility by truck and pneumatically conveyed to storage silos. The silos have properly operated and maintained control equipment as required by permit.

Dry injection of a sorbent material (such as activated carbon) is utilized to control mercury emissions from the Unit 1, 2, and 3 boilers. Four (4) sorbent storage silos comprise the emission unit group Designated as EUACI_U123 in the facility ROP. The sorbent is delivered to the facility by truck and then pneumatically conveyed to storage silos. The silos have properly operated and maintained control equipment as required by permit.

The following controls shall be in place to minimize potential fugitive dust from these operations:

- a. Transfer hoses and connections shall be maintained to not allow leakage of dust during the pneumatic delivery process of the pebble lime. If fugitive dust is generated due to a compromise in the hose or connections, the delivery process shall halt until the problem is fixed.
- b. Although not anticipated as there is no activity that would generate particulate matter “track-out,” fugitive dust emissions may be generated from the delivery trucks that travel on the paved road that leads to the prep facility. In order to control this fugitive dust, road sweeping and wetting will be implemented as necessary to minimize visible emissions from truck travel on the paved road.

5.0 ASH BYPRODUCT MATERIAL HANDLING

The emission units that comprise “EUASHNEW” and “EUBYPRODUCT” in the ROP are conveying systems, transfer tanks, storage silos, and load-out chutes for dry fly ash handling. All emission points from this equipment are controlled by bin vent filters or filter separators. The silos, tanks, and conveying equipment have properly operated and maintained control equipment as required by permit. The fugitive dust control plan (FDCP) for these systems is included in the CCR FDCP as provided on the Consumers Energy CCR Website:

([https://http://docs/sites/CCR/JH%20Campbell/Fugitive Dust Control Plan_JHC.pdf](https://http://docs/sites/CCR/JH%20Campbell/Fugitive_Dust_Control_Plan_JHC.pdf)).

The CCR FDCP addresses controlling fugitive dust from ash handling, load-out, and disposal activities. A copy of the CCR FDCP is contained in Attachment 1.0; however, the website should be referenced for the most recent controlled version.

Attachment 1.0

CCR Fugitive Dust Control Plan

Revision Log

Revision Number	Date of Revision	Reason(s) for Revision
0	8/22/2011	Updated to include the AQCS per permit 179-10
1	9/06/2012	Addressed plant suggested changes
2	4/10/2017	Amended for permit 18-15 nomenclature
3	1/30/2018	Integrated CCR FDCP into the site FDCP

