

Annual CCR Fugitive Dust Control Report
Powerton Generating Station
13082 East Manito Road, Pekin, Illinois

1.0 Introduction

On December 19, 2014, the administrator of the U.S. Environmental Protection Agency signed the Disposal of Coal Combustion Residuals (CCR) from Electric Utilities final rule (the Rule). The Rule was published in the Federal Register on April 17, 2015 and became effective on October 19, 2015. The Rule establishes a set of requirements for the disposal of CCR in landfills and surface impoundments at coal-fired power plants under Subtitle D of the Resource Conservation and Recovery Act. These requirements include air criteria specified in Title 40 of the Code of Federal Regulations, §257.80, to address potential pollution caused by windblown dust from CCR units.

The Powerton Generating Station, operated by Midwest Generation, LLC (MWG), is a coal-fired power plant located 13082 East Manito Road, Pekin, Tazewell County, Illinois. The facility is a coal-fired electric power generating station occupying approximately 1,710 acres. Units 5 and 6 began operating in 1972 and 1975, respectively. Electrical power is transmitted from the site to the area grid through overhead transmission power lines. The Rule applies to this facility due to the management of CCR that is generated from the combustion of coal. CCR units associated with the station include the Ash Surge Basin, Bypass Basin, and Former Ash Basin.

According to the Rule, owners or operators of CCR units must adopt measures that will effectively minimize CCR from becoming airborne at the facility by developing and operating in accordance with a Fugitive Dust Control Plan (Plan) with adequate dust control measures. In this regard, a Plan was prepared that complies with the requirements as specified in §257.80(b)(1-7) of the Rule and placed in the Powerton facility's operating record on October 19, 2015 per §257.105(g)(1). As required, the Plan was also noticed to the State Director per §257.106(g)(1) and posted to the publicly accessible internet site per §257.107(g)(1).

In addition to the above and per §257.80(c), an Annual Fugitive Dust Control Report (Annual Report) must be completed that includes the following:

- Description of actions taken to control CCR fugitive dust
- Record of all citizen complaints
- Summary of any corrective actions taken

The Annual Report must be completed no later than one year after completion and placement of the previous Report in the facility's operating record. This document represents the 2023 Annual Report for Powerton and will also be appropriately placed in the facility's operating record per

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§257.105(g)(2), noticed to the State Director per §257.106(g)(2), and posted to the publicly accessible internet site per §257.107(g)(2).

2.0 Actions Powerton Station Takes to Control CCR Fugitive Dust

As detailed in the CCR Fugitive Dust Control Plan (Plan) and reiterated below, the station has established procedures and inspection requirements which are implemented to minimize/eliminate airborne emissions from the potential fugitive dust sources. The results from inspections conducted and associated observations made during CCR handling activities are documented on logs maintained in the station's Environmental Department.

2.1 Bottom Ash and Slag Distribution System

Bottom ash and slag are in a liquid mixture within a closed system until the point of discharge at the dewatering bins. A significant portion of the piping system is contained within a building, which eliminates the potential for dust emissions to the outside environment. Also, the bottom ash and slag have sufficient moisture to preclude this material from becoming airborne. An assessment of the exterior distribution system is performed on a quarterly basis to verify the integrity of the system or when a breach in the system is detected. If a leak is noted, the affected area is restored to original conditions and repair of the pipe will be performed as soon as feasible. The ash is then sent off site to a mine reclamation site.

2.2 Dewatering Bins

The bottom ash and slag are drop loaded from the dewatering bins in a wet state and into trucks positioned beneath the bins. The bottom ash and slag have sufficient moisture to preclude this material from becoming airborne during loading. An assessment of the dewatering bin loading operations is performed on a quarterly basis to verify if there has been an equipment malfunction resulting in an accumulation of released material. Should there be a malfunction in the dewatering equipment, repair of any malfunctioning equipment and clean up and transfer of the material to the concrete storage pit is performed as soon as feasible.

2.3 Ash Surge Basin and Bypass Basin

During normal operations, the Ash Surge Basin and Bypass Basin are filled with water thereby suppressing any potential fugitive dust emissions. Infrequently, the basins need to be dewatered and the sediment removed for proper off-site disposition. While the bottom ash and slag residue

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is drying, there is the potential for this material to become airborne especially during excessively dry and windy conditions. Loading of this material under these conditions also has the potential for generating fugitive dust. Dewatered basins are assessed on a quarterly basis or more frequently during excessively dry and windy conditions. To minimize fugitive dust emissions from exposed dry bottom ash and slag, the height of the staged material is minimized and the material piles are either sprayed with water or covered. Loading activities are also limited during such occasions. If necessary, haul trucks are covered with tarps once they have been loaded.

2.4 Former Ash Basin

The Former Ash Basin was used for the disposal of bottom ash and slag in the past; however, this procedure is no longer occurring. The previously deposited material is completely submerged within the basin with the typical water level at approximately 10-15 feet below grade, thereby, making the bottom ash and slag not readily susceptible to wind erosion and generation of potential fugitive dust emissions.

2.5 Concrete Storage Area

The concrete storage area contains ash and slag and other ash-related materials generated from routine plant maintenance activities. These materials are in a wet state but are allowed to partially dry to facilitate removal. When sufficiently dry, the material is removed off site. The concrete area is assessed on a quarterly basis or more frequently during excessively dry and windy conditions. To minimize fugitive dust emissions from exposed dry bottom ash and slag and other ash-related materials, the material is kept wet.

2.6 Fly Ash Equipment

Fly ash from the mechanical separators is sent to the silos within an enclosed structure. The fly ash is drop loaded through a telescopic pipe contained within a drop chute into an opening within the tarp covering the truck trailer. This loading mechanism minimizes the potential for fly ash to become airborne during the loading process. The loading of trucks also occurs within a partial enclosure. At the completion of loading but prior to leaving the enclosure, the top, sides and rear of each truck trailer is sprayed with water. During times when temperatures are below freezing, the tarps are broom swept at the truck stand to remove any accumulated fly ash. Accumulated ash is promptly transferred to the concrete storage pad. Occasionally, the fly ash silos are required to be emptied so that fly ash does not harden inside the silo. In order to empty a silo, a vacuum truck is used to pull material out of the silo and into the truck.

This process is covered by the facility's fugitive dust operating program. Under the program, the facility must maintain control measures, including enclosures, covers and dust collection devices.

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Additionally, the facility is required to conduct weekly inspections of the process to confirm compliance. A record of the inspections is maintained at the facility.

2.7 Ash Transport Roadways

Truck drivers are instructed on the proper procedure for cleaning trucks and a vehicle speed limit is enforced at the facility. Ash material that may not have been adequately removed from the trucks has the potential to become airborne and ultimately be deposited on haul roads. To minimize fugitive dust emissions, these roads are assessed on a quarterly basis and any observed accumulated ash material is promptly cleaned up and collected for off-site removal.

3.0 Fugitive CCR Dust Assessments

Pursuant to 40 CFR 257.80(b)(4), assessments of the potential fugitive dust emission sources identified in the Powerton facility's CCR Fugitive Dust Control Plan (Plan) are conducted to assess the effectiveness of the Plan. The assessment includes observation of ash removal from ponds, temporary storage and transport activities at the facility to confirm the adequacy of the control measures. The assessments are conducted on a quarterly basis by an individual designated by the contact identified below. Observations made during each assessment are recorded on a form similar to the one included in Appendix B of the Powerton facility's CCR Fugitive Dust Control Plan.

If the results of the assessment determine that ash-related equipment has malfunctioned or the integrity of the equipment has been compromised, the necessary repairs or replacement are performed as soon as feasible. If the assessment finds that the Plan does not effectively minimize the CCR from becoming airborne, the Plan is amended to include additional control measures. No issues were identified during this Annual Report's period of record covering November 2022 through November 2023.

Owner Representative/Responsible Person Contact Information:

Mr. Todd Mundorf
Plant Manager
309-477-5212

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4.0 Record of Citizen Complaints

Per the Rule, the Annual Report must include a record of all citizen complaints that were received by the Powerton station with regard to fugitive dust emission incidents. In line with established protocols and within 24 hours of receipt, the station's environmental coordinator enters the citizen complaint into MWG's Environmental Management Information System (EMIS) database. The EMIS database then automatically forwards notice of the complaint to the station manager, MWG's regional environmental manager, and MWG's corporate environmental department. Following initial evaluation of the complaint, MWG then conducts a thorough investigation to confirm the reported incident/conditions and implement corrective actions as may be warranted.

No complaints regarding CCR fugitive dust emissions at the facility were registered during this Annual Report's period of record covering November 2022 through November 2023.

5.0 Summary of Corrective Actions Taken

For the November 2022 to November 2023 period of record, and based on continued monitoring and inspections as outlined in Section 2.0 and 3.0 and as required under the CCR rules, the currently established control measures remain effective in minimizing potential fugitive dust emissions. Moreover, this assertion is further validated by the lack of citizen complaints logged over this same period. Accordingly, no corrective actions were required during the past year.