

Annual CCR Fugitive Dust Control Report
Waukegan Generating Station
401 East Greenwood Avenue, Waukegan, 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 the potential pollution caused by windblown dust from CCR units.

The Waukegan Generating Station, operated by Midwest Generation, LLC (MWG), is located at 401 East Greenwood Avenue, Waukegan, Lake County, Illinois. The facility is a coal-fired electric power generating station currently occupying approximately 200 acres. There are currently two operating units, Units 7 and 8. There are four peaker units at the site, fired primarily by fuel oil. 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 disposal management of CCR that is generated from the combustion of coal. CCR units associated with the station include the East Ash Pond and West Ash Pond.

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 Waukegan 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

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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 2020 Annual Report for Waukegan and will be appropriately placed in the facility's operating record per §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 Waukegan Station Takes to Control CCR Fugitive Dust

As detailed in the facility's CCR Fugitive Dust Control 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, including those specific to the one-year period (November 2019 to November 2020) relevant to this Annual Report.

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 West or East Ash Pond. A significant portion of the piping system is contained within a building, which eliminates dust emissions to the outside environment. 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, resulting in the release of bottom ash and slag, the affected area is restored to original conditions and repair of the pipe is performed as soon as feasible. The ash is sent off site to a licensed landfill.

2.2 West Ash Pond and East Ash Pond

During normal operations, the Ash Ponds are filled with water thereby suppressing any potential fugitive dust emissions. Infrequently, the ponds will need to be dewatered and the sediment removed off site to a licensed landfill. While the bottom ash and slag residue 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 ponds 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 also are limited during such occasions. Haul trucks are covered with tarps once they have been loaded.

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2.3 Ash Handling Equipment

Fly ash from the mechanical separators is sent to the silos within enclosed piping. At the silos, the fly ash is drop loaded into a tank truck through a drop chute. 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, the truck moves a short distance to an elevated truck stand where it is broom swept to remove any accumulated fly ash. Accumulated ash is promptly transferred to the Maintenance Storage Area.

This process is covered by the facility's fugitive dust operating program. Under the program, the facility maintains control measures, including enclosures, covers and dust collection devices. Additionally, the facility conducts weekly inspections of the process to confirm compliance. A record of the inspections is maintained at the facility.

2.4 Maintenance Storage Area

The roll-off boxes in the Maintenance Storage Area only periodically contain bottom ash and slag, fly ash and other ash-related materials generated from routine maintenance activities. Typically the bottom ash and slag is in a wet state when placed into the containers but fly ash is in a dry state. When the roll-off boxes are filled, the material is promptly removed to an off-site licensed landfill. The Maintenance Storage Area is assessed on a quarterly basis or more frequently during excessively dry and windy conditions. If ash material is observed outside a roll-off box, it is collected and placed into the container. All roll-off boxes are covered while staged in the Maintenance Storage Area and during removal off site.

2.5 Ash Transport Roadways

Truck drivers are instructed on the proper procedure for cleaning trucks and roll-off boxes before removal and a vehicle speed limit is enforced at the facility. Ash material that may not have been adequately removed from the trucks or roll-off boxes 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 to a licensed landfill.

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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 Waukegan 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 will be recorded on a form similar to the one included in Appendix B of the Waukegan 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 will be performed as soon as feasible. If the assessment finds that the Plan does not effectively minimize the CCR from becoming airborne, the Plan will be amended to include additional control measures. No issues were identified during this Annual Report's period of record covering November 2019 through November 2020.

Owner Representative/Responsible Person Contact Information:

Mr. Robert Huschak
Plant Manager
847-599-2212

4.0 Record of Citizen Complaints

Per the Rule, this Annual Report must include a record of all citizen complaints that were received by the Waukegan 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 would 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 would then conducts a thorough investigation to confirm the reported incident/conditions and implement corrective actions as may be warranted.

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No complaints were registered during this Annual Report's period of record covering November 2019 through November 2020.

5.0 Summary of Corrective Actions Taken

For the November 2019 to November 2020 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 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.