



Annual Dust Control Report

Coal Combustion Residue (CCR) Landfill

Muscatine Power and Water

December 19, 2023

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Certification

Annual Fugitive Dust Control Report
Iowa Department of Natural Resources Permit No. 70-SDP-06-82P
CCR Landfill
Muscatine, Iowa
Muscatine Power and Water

I certify this Annual Groundwater Monitoring and Corrective Action Report meets the requirements of 40 CFR §257.80(c).

	<p>I hereby certify that this engineering document was prepared by me or under my direct personal supervision and that I am a duly licensed Professional Engineer under the laws of the State of Iowa.</p>	
	<p> Michael J. Alowitz, P.E.</p>	<p><u>12/19/23</u> Date</p>
	<p>License Number: <u>18160</u></p>	
	<p>My license renewal date is: <u>December 31, 2024</u></p>	
	<p>Pages or sheets covered by this seal: <u>Entire Document</u></p>	

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Appendix A Citizen Complaint Record

1. Rule Requirement – Federal CCR Rule §257.80(c)

Under Federal Rule §257.80(c), Muscatine Power & Water (MPW) prepared an Annual Coal Combustion Residue (CCR) Fugitive Dust Control Report within 14 months of placing the initial CCR Fugitive Dust Control Plan (2015) in the landfill's operating record. Subsequent annual reports are due one (1) year from the initial report date.

This Annual Fugitive Dust Control report is for 2023.

The annual fugitive dust control report includes:

1. A description of the actions taken to control CCR fugitive dust (Section 2)
2. A record of all citizen complaints (Section 3)
3. A summary of any corrective measures taken to address dust control (Section 4)

2. Description of the actions taken to control CCR fugitive dust

2.1 Haul Road

The haul road from the landfill entrance to the active fill area is surfaced with crushed gravel. To mitigate dusting, the road is watered down as needed (i.e., not every time a load of fly ash is taken to the landfill), using tanker trucks fitted with spray nozzles. The water is collected from the on-site machine shop well.

2.2 During CCR Disposal Operations

The majority of CCR disposed of at the landfill includes fly ash, flue gas desulfurization material (FGD), and boiler slag. Fly ash material is the most susceptible to dusting due to its fine particle size and dry nature.

The means for controlling fugitive dust during offloading of fly ash in the active landfill cell is a cover and wet suppression procedure. Fly ash is unloaded from a bulk tanker truck through a pipe that discharges the fly ash underneath a tarp and/or a belt trailer truck. A water truck can be used to spray down incidental fugitive dust to augment control of any dusting. An irrigation system has also been used to spray water for dust suppression during unloading procedures.

Wet dust suppression is typically not used during freezing temperatures. When temperatures are below freezing, fly ash placed at the landfill is scrutinized by MPW or contractor personnel instructed to minimize significant fugitive dust as needed when wind speeds exceed 25 miles per hour; fly ash will not be placed at the landfill unless operating conditions provide no other viable option.

2.3 Active Area

During regular working hours, if weather conditions and areas of the active cell show potential for generating fugitive dust (loose CCR on the surface), an irrigation device (Ag- Rain Model T40A/1320) or tanker truck with sprayer is used for dust suppression. Water from the site run-off control pond is primarily used for this procedure.

3. Record of all citizen complaints

A procedure to log citizen complaints is identified in Section IV of the CCR Fugitive Dust Control Plan, updated December 5, 2018 (HR Green, 2018).

One citizen complaint (Appendix A) was received during the 2023 reporting period. The complaint was received via text message to the MPW manager of Power Generation on July 29, 2023. The root cause of the dust observed by the complainant was a final discharge from a pressurized tanker used for unloading. The availability of preferred belt trailer trucks is limited.

4. Summary of corrective measures

MPW discussed the dust complaint and implications with the CCR hauling contractor. The contractor worked to limit dust when using the pneumatic unloading methods and was able to procure access to a bottom dump trailer again.

A copy of this report will be placed in the operating record as required under §257.105(g)(2).

Under §257.80(d) Muscatine Power & Water intends to comply with the recordkeeping requirements specified in §257.105(g)(2), the notification requirements specified in §257.106(g)(2), and the public internet site requirements specified in §257.107(g)(2).

Appendix A

Citizen Complaint Record

Written Report for Citizen Complaint -CCR Landfill

Written Report. The written report of citizen complaint should contain the following information (Please complete as much as possible):

Citizen submitting complaint:

Name Claudia Putnam
Physical Address [REDACTED] City [REDACTED]
Phone Number [REDACTED] Zip [REDACTED]

Time and Date of complaint:

Time 1:35 AM PM Date July 27, 2023

Citizen Complaint:

Ms. Putnam's complaint was regarding dusting at the landfill while unloading a fly ash tank truck.

Investigation of Complaint:

Neal Nelson (Manager Power Generation) received two pictures, via text message at 8:57AM on Saturday, July 29, 2023, showing dust coming from the tank truck unloading area of the landfill from Ms. Claudia Putnam. Ms. Putnam included the following text: "Hi Neal, I took these photos Thursday, July 27, 2023 (Early afternoon)." The picture showed local dusting at the point of unloading but no visible dust was observed in her pictures, crossing the property boundary. Neal Nelson contacted Ms. Putnam at 10:22 AM to inform her the issue would be addressed with the unloading contractor.

Scott Clester (Material Handling Supervisor) and Neal Nelson met with the haulage contractor (Holcim) who was unloading the fly ash on the date in question.

The contractor reported that the dusting occurred at the end of the unloading cycle when the air flow from the truck increased as the amount of ash coming from the tanker decreased. The contractor stated that no dust left the boundary of the landfill property during this incident.

The contractor also mentioned that the third-party trucking firm he had been using to haul the fly ash, recently sold their bottom dump trailer and he then had to use the pressurized tanker to haul the ash to the landfill.

The contractor is searching for another company that has a bottom dump trailer to avoid pressurized unloading of the fly ash.

Actions Taken:

Neal Nelson and Scott Clester (MPW) met with the contractor to discuss the unloading occurrence in which the dusting was reported. The contractor commented that the air pressure used to push the fly ash from the tanker was lowered as previously requested and that no dust left the property boundary.

Scott Clester will prioritize having a water wagon present during unloading events, to wet the ash as it exits the tanker truck. The Contractor will continue the practice of using lower air pressure and slower feed rates of ash flowing from the truck.

The Contractor will continue searching for a bottom dump trailer to avoid the need to unload the flyash with pressurized air.

Person Completing Report

Neal Nelson

July 31, 2023

Send Report to

Phone

Email

MPW Environmental Department

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