

2021 Annual Fugitive Dust Report for Louisa Generating Station



MidAmerican Energy Company

Coal Combustion Residual Rule Compliance

November 9, 2021

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LIST OF ABBREVIATIONS

<u>Abbreviation</u>	<u>Term/Phrase/Name</u>
CCR	Coal Combustion Residual
CCR Rule	Federal Coal Combustion Residuals Rule
CFR	Code of Federal Regulations
EPA	Environmental Protection Agency
Louisa	Louisa Generating Station
MEC	MidAmerican Energy Company
RCRA	Resource Conservation and Recovery Act
U.S.C.	United States Code

1.0 INTRODUCTION

On April 17, 2015, the Environmental Protection Agency (EPA) issued the final version of the federal coal combustion residuals rule (CCR Rule) to regulate the disposal of coal combustion residual (CCR) materials generated at coal-fired units. The rule is being administered as part of the Resource Conservation and Recovery Act (RCRA, 42 United States Code [U.S.C.] §6901 et seq.), using the Subtitle D approach.

MidAmerican Energy Company (MEC) owns and operates the Louisa Generating Station (Louisa), which has one 745 megawatt coal-fired unit and is located near Muscatine, Iowa. Coal combustion residuals produced at Louisa include fly ash, bottom ash/economizer ash, and waste ash, which are currently either utilized for beneficial reuse or disposed of in an onsite monofill. In addition to the controls outlined in this plan, MEC adheres to controls and Best Management Practices that are required and outlined in site permits and plans. MEC also holds subcontractors responsible for controlling fugitive dust. Boral Limited manages CCR disposal operations and maintenance activities within the site monofill.

MEC is subject to the CCR Rule and as such is subject to compliance with 40 Code of Federal Regulations (CFR 257.80(c), which discusses the requirements for the annual CCR fugitive dust control report. This report, herein, is the Annual Fugitive Dust Control Report for Louisa.

2.0 REPORT OBJECTIVES

As required by the CCR Rule, 40 CFR 257.80(a) and (b), a CCR Fugitive Dust Control Plan was initially written by Burns & McDonnell in September 2015, was updated by Foth in October 2021, and is available on the MEC public CCR website.

The plan outlines fugitive dust sources and MEC's operational activities, which will be summarized in this section.

The CCR Rule, 40 CFR 257.80(c) requires an annual CCR fugitive dust control report to be compiled as a supplement to the plan. To meet the CCR Rule objectives, the annual fugitive dust control report must contain the following:

- A description of the actions taken by the owner or operator to control CCR fugitive dust,
- A record of all citizen complaints, and
- A summary of any corrective measures taken.

The initial annual report was completed November 18, 2016. Subsequent reports will be completed one year after the date of completing the previous report. The annual CCR Fugitive Dust Control Report is complete when the report has been placed in the facility's operating record.

3.0 FUGITIVE DUST CONTROL ACTIVITIES

The CCR Fugitive Dust Control Plan discussed in Section 2.0, outlines fugitive dust sources and MEC's operational activities, which will be summarized in this section. MEC continues to operate, maintain, and control fugitive dust in the manner that is summarized.

3.1 Bottom Ash/Economizer Ash Handling

Bottom ash and economizer ash are handled dry and transported to a monofill onsite. Since the bottom ash and economizer ash are a coarse material, fugitive dust is minimal when handling this material.

Bottom/economizer ash is deposited into a storage bunker and loaded into haul trucks for disposal at the monofill.

3.2 Fly Ash Handling

Fly ash is generally unloaded dry into trucks, from a fly ash silo, and transported offsite for beneficial reuse. Fly ash unloading is done via over-suction chute and is transported in enclosed trucks. Fly ash that does not meet reuse specifications is transported to the monofill and is conditioned by water trucks. At the monofill, dry ash is conditioned with water. After the conditioned ash has become solidified, it is ground into a product called C-Stone that can be beneficially reused. Water trucks are also used during the grinding process to minimize potential of fugitive dust emissions. Hauling and disposal activities are halted when wind conditions are extreme and when operationally feasible.

3.3 Waste Ash Handling

Waste ash is conditioned to at least 20 percent moisture content via a pug mill within a silo enclosure, prior to unloading. The storage silo is equipped with belt skirting to minimize potential of fugitive dust emissions during truck loading. When the waste ash material is placed at the monofill, it has already been conditioned. Personnel unloading the trucks are responsible for observing the condition of the ash, and adding water during unloading if necessary. Hauling and disposal activities are halted when wind conditions are extreme and when operationally feasible.

3.4 Haul Road

The plant has a paved haul road connecting the plant to the monofill site. Enclosed haul trucks utilize the paved haul road to transport CCR materials to the monofill. The plant utilizes a street sweeper on a daily basis to clean the haul road when CCR is being hauled to the monofill. Water trucks are used as necessary on any unpaved haul roads to prevent fugitive dust from becoming airborne. If water trucks are not adequate for mitigating fugitive dust, chemical dust suppressant is sprayed on any unpaved haul roads.

3.5 Monofill

CCR materials are taken to the onsite permitted monofill for disposal. Water trucks are used as necessary to prevent fugitive dust from becoming airborne. Wetting CCR with water serves to condition the CCR material to a moisture content that will prevent wind dispersal. Leachate may be used for dust control within the lined portion of the East Monofill. If other dust controls are not adequate in mitigating fugitive dust, the site considers the use of daily cover to be applied to CCR within the monofill. During abnormally high winds, a mobile pressurized water system is used for dust suppression, and CCR placement within the landfill is halted until conditions improve if operationally feasible.

Bottom/economizer ash at Louisa is handled dry and is hauled to an onsite monofill.

3.6 Impoundment

The CCR Impoundment at Louisa is closed.

4.0 CITIZEN COMPLAINT AND CORRECTIVE ACTION SUMMARY

Per the CCR Fugitive Dust Control Plan that was initially written by Burns & McDonnell, in September 2015, and updated by Foth in October 2021, MEC is responsible for logging any citizen complaints that involve CCR fugitive dust events.

Between the last Annual Fugitive Dust Report completed on November 10, 2020, and when this report was written in November 2021, there had been no citizen complaints made to MEC in regards to fugitive dust events. As such, no corrective action is necessary at this point.

