

2019 CCR Fugitive Dust Control Report - J.M. Stuart Station

AES Ohio Generation, LLC

This document has been prepared to meet the requirements of 40 CFR Part 257, Hazardous and Solid Waste Management System; Disposal of Coal Combustion Residuals from Electric Utilities; Final Rule April 17, 2015



December 6, 2019



Introduction

J.M. Stuart Station (Stuart) is located in a rural area between U.S. Route 52 and the Ohio River in Adams County, Ohio. Stuart was in operation from 1970 until May 2018 and had a capacity of approximately 2,300 megawatts. The plant consisted of four coal-fired boilers and four diesel generators.

Coal ash and gypsum are the coal combustion residuals (CCR) managed at the site. The plant currently has five CCR ponds and three active landfill disposal areas for CCR.

Stuart mixed the fly ash (ash that was removed from the air stream by the electrostatic precipitator), with water and wet sluiced it to one of three fly ash ponds: Pond 3A; Pond 7; or Pond 10. The fly ash ponds were rotated such that during normal operations, one pond was being filled with sluiced fly ash, while another pond was being dewatered and the third pond was being excavated. During excavation, ash is moved by truck a short distance to one of two on-site landfills, Landfill 9 or 11. The wastewater from the fly ash ponds flows through Pond 6 prior to ultimate discharge into the Ohio River.

Stuart wet sluiced the bottom ash (ash from the bottom of the boiler which contains boiler slag and other non-combustible material) to Pond 5, and the wastewater is ultimately discharged to the Ohio River along with other wastewater flows. The bottom ash was dewatered and excavated for use on-site or disposal.

In the flue gas desulfurization (FGD) systems, the combustion gases containing sulfur dioxide mixed with limestone slurry in a reaction vessel. The limestone reacted with the sulfur dioxide creating gypsum (calcium sulfate). The gypsum was dewatered and conveyed to a stack out area. If the gypsum was to be reused, it was then loaded onto a conveyor to be transported to a river barge or it was loaded into trucks. Gypsum that was slated for disposal was loaded into trucks or barges and transported to a landfill. The FGD vessels also generated wastewater that contained residual gypsum that was discharged into an area of Pond 5 that is segregated from the ash. This gypsum material was excavated and landfilled.

Carter Hollow Landfill is permitted for gypsum and ash disposal. AES Ohio Generation, LLC, does not plan to use Carter Hollow Landfill unless it is absolutely necessary.

Even though the plant shut down last year and specific actions have been taken to reduce the likelihood of fugitive dust (e.g., burned all usable coal, transported all salable gypsum off-site, cleaned all conveyor systems, and cleaned gypsum stack out pads), there remains activities/materials on-site that require fugitive dust monitoring.

The fugitive dust control measures currently being used were primarily selected in accordance to the measures contained in the Stuart Title V Permit, air permits-to-install (PTI), and the Carter Hollow Landfill solid waste permit.

Description of the Actions Taken to Control CCR Fugitive Dust

Stuart personnel use an inspection form to document daily inspections required by the Fugitive Dust Control Plan. Areas included in the inspection are: (1) FGD limestone and gypsum storage piles, (2) material handling systems, (3) plant roadways and parking areas, (4) landfills, and (5) ash impoundments. Review of completed inspection forms demonstrates that the inspections are being performed. Control measures such as watering, housekeeping, reduced speed limits, and covered trucks have been used throughout the year to control fugitive dust.

Record of Citizen Complaints

There have been no citizen complaints during the time period of this report.

Summary of Any Corrective Measures Taken

Since there have been no citizen complaints during the time period of this report, there have not been any corrective measures required to be taken.