Date: December 7, 2023

To: D.E. Karn Operating Record

From: Joy R. Hwang, Environmental Services Department

RE: Annual Coal Combustion Residual (CCR) Fugitive Dust Control Report
D.E. Karn and J.C. Weadock Facilities

Introduction

This report serves as the Annual CCR Fugitive Dust Control Report required by the United States Environmental Protection Agency (EPA) CCR Resource Conservation and Recovery Act (RCRA) Rule. It describes the measures implemented at Consumers Energy Company's (CE) D.E. Karn (DEK) and J.C. Weadock (JCW) facilities for minimizing fugitive dust emissions from CCR. The DEK facility is located at 2742 N. Weadock Highway in Essexville, Michigan, and employed two coal-fired boilers, Unit 1 and Unit 2, to generate electricity; operation of these two units was permanently discontinued in May 2023. The JCW facility discontinued coal firing operation in Boiler Units 7 and 8 in March 2016. As both facilities are located on the same site, this report covers all CCR units on the CE DEK/ JCW site.

This annual report has been developed and placed in the facility Operating Record in accordance with 40 CFR 257.80 and 40 CFR 257.105(g), as well as posted to the public website within 30 days in accordance with 40 CFR 257.107(d). This report is required to include a description of the actions taken by CE personnel and contractors to control CCR fugitive dust, a record of all citizen complaints, and a summary of any corrective measures taken.

Fugitive Dust Control Activities

The dry fly ash previously generated from coal combustion in DEK Units 1 and 2 boilers contained spent and un-spent lime from the Spray Dryer Absorber as well as carbon from the Activated Carbon Injection system, together called "byproduct." The byproduct handling system and corresponding point-source particulate matter controls were properly maintained and inspected daily through the permanent end of operation of DEK Units 1 and 2. Prior to placement in the haul trucks for re-use or disposal, the byproduct was conditioned with water utilizing a paddle mixer (Dustmaster™) to achieve the desired moisture content. Vacuum fans were operated during truck loading to capture and transfer any fugitive dust back up into the silo which was controlled by a dust collector. Dust curtains were employed to increase the capture efficiency of the fugitive dust from the loading process.

At the ash byproduct placement location, a water truck is available for further conditioning during spreading and compacting as necessary. Activities are suspended to prevent excessive dusting (leaving the site boundaries) or when there are sustained wind speeds of over 25 mph. A permanent dust fence, constructed from Wind Defender™, is located along the southeast corner

of the Weadock Landfill. Inactive portions of the open Weadock Landfill have been largely covered in clay and geosynthetic fabric Wind Defender™ to mitigate dust, and additionally, some areas are treated with dust suppressants Eco-Ultimate™ and DustNot™ as needed to prevent dust in areas where coverage does not make sense at the time. An irrigation system consisting of a pump and reel design is available to water 30 acres of the Weadock Landfill as necessary during months where the equipment does not require winterization.

Any excavating and/or transfer activities are visually monitored for potential dusting. The Karn Bottom Ash Lined Impoundment system accepted sluiced CCR material until the permanent end of operation of DEK Units 1 and 2, and the impoundment area remains in a wet and/or vegetative condition that minimizes fugitive dust generation. The roadways surrounding the CCR units are well maintained and the 15-mph speed limit is observed when dusting is an issue. Primary roadways were treated with a dust suppressant to further minimize fugitive dust.

Citizen Complaints

There were no citizen complaints of CCR fugitive dust received at the DEK-JCW facility for the time period from December 7, 2022, to December 6, 2023.

Corrective Actions

All potential CCR fugitive dust areas are monitored visually on a daily basis, and corrective as well as preventative measures are properly implemented as warranted.

Conclusion

EGLE's 2023 quarterly landfill inspections were performed on March 23, June 21, and September 28, with the final quarterly inspection to occur in December 2023. For each completed inspection, EGLE determined that the Karn Lined Impoundment and Weadock Landfill were in compliance with the requirements of Part 115 that were evaluated based on information obtained and observations made during the inspection. The annual Qualified Professional Engineer (QPE) inspection for this site occurred on June 12, 2023, in accordance with 40 CFR 257.84(b).

A CE site audit was conducted on November 2, 2023; applicable aspects of the Fugitive Dust Control Plan (FDCP) were found to be correctly implemented with no findings to report. The FDCP is being amended, pursuant to 40 CFR 257.80(b)6, to reflect decommissioning of DEK Units 1 & 2 and subsequent discontinued ash generation, as well as an updated Fugitive Dust Plan Coordinator. The amended plan will be signed by a professional engineer, as required by 40 CFR 257.80(b)7, and will be posted to the Operating Record as required by 40 CFR 257.105(g).