Date: December 7, 2020

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 employs two coal-fired boilers, Unit 1 and Unit 2, to generate electricity. The J.C. Weadock (JCW) facility discontinued coal firing operation in Boiler Units 7 and 8 in March 2016. As both of these 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 generated from coal combustion in DEK Units 1 and 2 boilers contains spent and un-spent lime from the Spray Dryer Absorber as well as carbon from the Activated Carbon Injection system. This co-mingled CCR is called "byproduct." The byproduct handling system corresponding point-source particulate matter controls are properly maintained and inspected daily. Prior to placement in the haul trucks for re-use or disposal, the byproduct is conditioned with water utilizing a paddle mixer (Dustmaster™) to achieve the desired moisture content. Vacuum fans are operated during truck loading to capture and transfer any fugitive dust back up into the silo which is controlled by a dust collector. Dust curtains are employed to increase the capture efficiency of the fugitive dust from the loading process.

At the 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. Inactive portions of the open Weadock Landfill have been seeded to mitigate dust, and additionally, some areas are treated with a dust suppression chemical to prevent dust in areas vegetation does not make sense at the time.

Any excavating and/or transfer activities are visually monitored for potential dusting. The Karn Bottom Ash Lined Impoundment system is actively accepting sluiced CCR material and the impoundment area remains in a wet and/or vegetative condition that minimizes fugitive dust generation. The Karn Bottom Ash Pond and Weadock Bottom Ash Pond stopped accepting material in 2018 and were both certified closed by EGLE on December 1, 2020.

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 two citizen complaints pertaining to CCR fugitive dust from the DEK/JCW facility for the time period from December 7, 2019 to December 7, 2020. The citizens both lodged their complaints on December 19, 2019 relating to a high wind event on December 18, 2019 when dust from the exposed area of the Weadock Landfill allegedly left the site in the direction of the citizens' houses, east-southeast of the site.

Corrective Actions

In response to the December 19, 2019 complaints, onsite corrective actions included spreading and crimping straw over areas to grade and utilizing approved dust suppression chemicals over other areas, as well as promoting vegetation growth over the Weadock Landfill during the spring of 2020. In September 2020 a mesh wind break was installed along the southeast corner of Weadock Landfill with approximate dimensions of 20ft in height by 1230ft in length; it is designed to slow the velocity of any dust-borne wind that comes into contact with the wind break. All potential CCR fugitive dust areas are monitored visually on a daily basis, and general corrective as well as preventive measures are properly implemented as warranted.

The homes in the area where the two complaints were received were provided car wash tickets for their vehicles and cleaned as requested in order to maintain positive public relations.

Conclusion

A site audit was conducted on October 21, 2020. Applicable aspects of the plan were found to be correctly implemented with no findings to report. Since the site visit, the FDCP has been reviewed and amended, pursuant to 40 CFR 257.80(b)6, to reflect official closure of the Karn Bottom Ash Pond and Weadock Bottom Ash Pond. The amended plan was signed by a professional engineer as required by 40 CFR 257.80(b)7 and posted to the Operating Record on December 4, 2020 as required by 40 CFR 257.105(g).