Consumers Energy
Count on Us®

A CMS Energy Company

Date: December 15, 2016

To: Operating Record

From: Kathryn M. Cunningham, P.E.

RE: Annual CCR Fugitive Dust Control Report
D.E. Karn Generating Electric Facility

Introduction

This report is the first Annual CCR Fugitive Dust Control Report required by the United States Environmental Protection Agency (EPA), Coal Combustion Residual (CCR) Resource Conservation and Recovery Act (RCRA) Rule. It describes the measures implemented at Consumers Energy's Dan E. Karn (DEK) Generating Facility for minimizing fugitive dust emissions from coal combustion residuals (CCR) from Bottom Ash and Spray Dryer Absorber (SDA) byproduct. The DEK facility is located at 2555 N. Weadock Highway in Essexville, MI Michigan and employs two coal fired boilers, Unit 1 and Unit 2 to generate electric. The J.C Weadock facility discontinued coal firing operation in Boiler Units 7 and 8 by March 25, 2016. As both of these facilities are located on the same site, this report covers all CCR units on the Consumers Energy Karn/Weadock site.

This report has been developed and placed in the facility operating record in accordance with the CCR regulations stipulated in 40 CFR Part 257.80(c), as well as posted to the public website in accordance with 257.107(d). This report is required to include a description of the actions taken by plant personnel or contractors to control CCR fugitive dust, a record of all citizen complaints, and a summary of any corrective actions taken.

Fugitive Dust Control Activities

The Weadock dry fly ash handling system discontinued operation after full shut down of the boiler unit ID fans and electrostatic precipitators. The dry ash handling systems (piping and silo) were cleaned out and ash was disposed of properly. Up until that time, proper maintenance and daily monitoring of the flyash handling systems was executed to minimize fugitive dust.

The dry fly ash generated from coal combustion in Karn 1 and 2 boilers also 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 bulk of the byproduct is being beneficially re-used for landfill closure activities at the Karn Landfill, which is not a CCR unit. The on-site licensed Weadock landfill also accepts the CCR waste from Karn 1 and 2. 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 through a pin-paddle mixer 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 in the event excessive dusting (leaving the site boundaries) is occurring 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, a tackifier has been utilized in areas the seed did not take.

The Karn Bottom Ash pond is actively accepting sluiced CCR material and the pond area remains in a wet and/or vegetative condition that minimizes fugitive dust generation. Any excavating and/or transfer activities are visually monitored for potential dusting. The Weadock bottom ash pond is no longer actively accepting CCR material; and grass seed has been planted across the pond and stockpile areas.

The roadways surrounding the CCR units are well maintained and the 15 mph speed limit is observed.

Citizen Complaints
There were no citizen complaints of CCR fugitive dust received at the D.E. Karn/Weadock facility for the time period October 16, 2015 to December 15, 2016.

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. There were no specific corrective actions warranted since the initial posting of the Fugitive Dust Control Plan (FDCP).

Conclusion
An assessment of the Fugitive Dust Control Plan was conducted on December 8, 2016. Applicable aspects of the plan were found to be correctly implemented with no findings to report. During the site visit, the FDCP was reviewed and will be amended to reflect current operations based upon the site visit. The amended plan will be signed by a professional engineer and posted to the operating record as required.