# DTE Electric Company – Monroe Power Plant
# Coal Combustion Residuals Fugitive Dust Plan

## 1.0 Purpose

The purpose of this Coal Combustion Residuals (CCR) Fugitive Dust Plan (the "plan") is to establish measures to minimize CCR from becoming airborne at the facility as outlined in 40CFR257.80.

## 2.0 Scope

The plan applies to measures to control CCR fugitive dust originating from CCR units, roads, and other CCR management and material handling activities.

## 3.0 Site Description

Monroe Power Plant (MONPP) is located in the City of Monroe and Frenchtown Township, Michigan. The plant is located at the confluence of the River Raisin and Lake Erie, south of the River Raisin and west of Lake Erie. MONPP is an ISO14001 certified facility. There are three CCR units at the site (collectively referred to throughout this report as the MONPP CCR units): the fly ash basin, the vertical extension dry ash landfill, and the inactive bottom ash impoundment. The fly ash basin and the vertical extension landfill are licensed under one operating license in accordance with Michigan's solid waste disposal licensing requirements (Operating License 9579, 2019). The inactive bottom ash basin is also licensed under the Michigan solid waste disposal licensing requirements (Operating License 9628, 2020).

The fly ash basin is located southwest of the power plant across Plum Creek. It is bounded on the west by U. S. Interstate Highway I-75 and on the north by Dunbar Road and Plum Creek. The southeast corner of the fly ash basin borders Lake Erie. The basin has an approximate 3.5-mile perimeter and covers approximately 400 acres. The fly ash basin accepts fly ash from the plant which is transported currently via long distance piping by sluicing (wet transport).

The inactive bottom ash basin is located south of the power plant on the plant property. It is adjacent to the plant discharge channel on the west. The inactive bottom ash basin accepted bottom ash from the plant until 2015 and non-CCR process water until 10/21/2020. Closure by removal of the inactive bottom ash basin is in progress.

The vertical extension dry ash landfill covers approximate 79-acres and is located on top of the northwest corner of the existing fly ash basin. This area is used for placement of conditioned dry CCR which is hauled by truck from the plant.

## 4.0 Dust Control Measures

The following dust control measures provide site specific mechanisms to manage and minimize fugitive dust created from CCR management operations and were

developed in accordance with good engineering practices. Many measures for dust control are used at the MONPP CCR units, and throughout the power plant. These include limiting speed, water sprays, dust suppressant application, conditioning and others. All control measures can be used where appropriate except when freezing conditions exist or as otherwise specified. Additional dust control measures will be taken as appropriate.

The speed limit on all paved and unpaved travel surfaces is 15 miles per hour (mph) or less, as posted. This speed limit applies to all traffic.

Paved and unpaved surfaces are regularly water-flushed. Paved surfaces may also be vacuum-swept or wet broom swept. Water-flushing is done by using wash down hoses or one of the plant's water wagons using copious amounts of water. During periods where there is no precipitation, water is applied to paved and unpaved surfaces multiple times per day. Unpaved driving surfaces are also treated with dust suppressant several times per year.

Roadways around exposed storage areas such as the bottom ash dewatering system (BADS) and flue gas desulfurization (FGD) wastewater treatment plant (WWTP) sludge storage area, CCR transfer pad, and the MPP CCR units are controlled by water sprays. Water sprays may include hoses, "rain bird" sprinklers, dust bosses, sprays from the water wagon or a combination. The storage areas will also be maintained in such a manner not to create peaks which promote fugitive dust. Any approved CCR material brought to the vertical extension landfill will be conditioned with water to a moisture content that will prevent wind dispersal but will not result in free liquids.

The filled areas and other open areas of the fly ash basin, other than those areas covered by the vertical extension landfill, will be controlled by vegetation once deemed safe to access. This includes vegetation planted on the fly ash-filled areas of the basin. As with all other areas of the facility, driving surfaces at the MONPP CCR units and other surfaces at the plant traveled while transporting approved CCR material will be treated with water and/or dust suppressant as outlined above.

All vehicles transporting bulk loads off site shall comply with Section 324.5524(3)(d) of the Michigan Natural Resources & Environmental Protection Act which requires covers over solid loads that may generate dust and that leaks of liquid be prevented. This includes trucks hauling CCR material that leaves the plant property. Additionally, trucks leaving the inactive bottom ash impoundment during closure operations must use the truck wash, as necessary, prior to leaving the plant property.

## 5.0 Effectiveness Assessment & Monitoring

The effectiveness of this plan will be assessed through several avenues. First and foremost, plant personnel (Plant Operations and Fuel Supply Operations) are perform routine inspections throughout the facility daily. Any instances of fugitive dust observed anywhere on the property are addressed in a timely manner.

In addition, MONPP operates two PM 10 particulate matter monitors. These monitors sample total suspended particles (TSP) that are 10um or smaller and are quality assured per Environmental Protection Agency (EPA) protocol. The monitor filters are changed every six days per the EPA schedule. Any TSP excursions are investigated including analysis of the material on the filter, activity in the area, and weather conditions. Any instance of fugitive dust resulting in a monitored excursion would result in further corrective action being taken.

Agency inspections are also done on a regular basis. The Michigan Department of Environment, Great Lakes, and Energy (EGLE) performs inspections quarterly and the Monroe County Health Department performs inspections as needed. These inspections are in addition to site personnel being at the facility for water discharge sampling, weekly CCR inspections, visual inspections or other activities. The entire plant property, including the fly ash basin, is included in the periodic facility environmental audit plan coordinated by the corporate environmental organization as well.

Any complaints filed by citizens regarding fugitive dust or other environmental issues at the MONPP CCR units or any other part of the facility are logged and tracked via procedures set forth by the plant's ISO14001 environmental management system.

## 6.0 Amendment of Plan

This plan will be reviewed periodically by the DTE Electric Company Environmental Management and Safety organization. Reviews and revisions will be documented in the Revision History section of this plan. Any construction of a new CCR unit or change in the operation or construction of an existing CCR unit will be assessed for necessary changes to this plan.

## 7.0 Reporting & Recordkeeping

An annual CCR fugitive dust control report will be completed as required under 40CFR257.80(c). The report will document that the fugitive dust control measures identified in this plan are applicable and appropriate for site conditions, by including a description of actions taken to control CCR fugitive dust, a record of citizen complaints, and a summary of any corrective measures taken.

All files and information will be maintained in a written operating record as required by 40CFR257.105(g). Notifications will be made as required by 40CFR257.106(g). Website postings will be made as required by 40CFR257.107(g).

## 8.0 Revision History

| Revision No. | Revision Date: | Changes |
|---|---|---|
| 0 | 10/19/2015 | Original Document |
| 1 | 7/17/2019 | Provided additional details in sections 4.0 and 7.0. |
| 2 | 11/9/2021 | Provided operating license information in Section 3.0. Updated process for the inactive bottom ash impoundment. Further defined activities in section 5.0. |

# PROFESSIONAL ENGINEER CERTIFICATION
# 40 CFR 257.80(b)(7)

CERTIFICATION: By means of this certification, I attest that I am familiar with the requirements of provisions of 40 CFR Part 257.80, that I or my designated agent have visited and examined the facility, that this plan has been prepared in accordance with good engineering practices, and with the requirements of this Part, that the plan is adequate for the facility.

Signature: _____

Engineer: Nicholas Reidenbach

Registration No.: 6201060717 State: Michigan

Date: 11/8/2021

SEAL: