

CLOSURE PLAN FOR INACTIVE BOTTOM ASH IMPOUNDMENT PER 40 CFR 257.102 (b)

REV. 2 – 04/11/25

SITE INFORMATION

Site Name / Address	DTE Electric Monroe Power Plant / 3500 East Front St., Monroe, MI 48161		
Owner Name / Address	DTE Electric Company / One Energy Plaza, Detroit, MI 48226		
CCR Unit	Inactive Bottom Ash Impoundment (BAI)	Final Cover Type	N/A
Reason for Initiating Closure	Regulatory Compliance	Closure Method	Closure by Removal

CLOSURE PLAN DESCRIPTION

(b)(1)(i) – Narrative description of how the CCR unit will be closed in accordance with this section (§257.102).	The BAI will be closed by removal of CCR based on pre-construction verification sampling that determined the bottom of CCR elevations. This pre-construction verification sampling was completed in a series of mobilizations in 2017, 2019 and 2020 by collecting boring data in the closure area at a density of approximately two borings per acre. After CCR is removed, the BAI will continue to act as a stormwater basin to collect run off storm water and precipitation that drains/falls naturally into the basin.
(b)(1)(ii) – If closure of the CCR unit will be accomplished through removal of CCR from the CCR unit, a description of the procedures to remove the CCR and decontaminate the CCR unit in accordance with paragraph (c) of this section (§257.102).	Closure construction will include CCR removal by both hydraulic and mechanical dredging of the CCR materials within the BAI. Dredging of CCR will reach the known approximate depths of 0 to 20 feet below the existing topographic and bathymetric surface within the BAI and extend a minimum of an additional 6-inches below the bottom of CCR surface determined from the pre-construction verification sampling program. The BAI will be excavated to the bottom of ash surface. To address decontamination of the BAI, an additional over excavation of 6 inches will be completed via a series of additional passes with the hydraulic dredge through the entire impoundment; a minimum of two additional passes will be completed at the bottom of the excavation to remove any materials that may have re-settled in these areas due to resuspension (fall-back). Excavated materials will be dewatered, as appropriate, through the use of a patented scalping/desanding system to remove water from coarse-grained materials and then passed through geotextile tubes to remove water from fine-grained materials. This will be performed in two phases, based on a larger dewatering field internal to the BAI in the first phase and a smaller dewatering field external to the BAI to complete the CCR removal. Dewatered CCR materials will be transported offsite to the Sibley Quarry Landfill for disposal. Decanted water will be pumped back to the BAI in phase one and the process waste ditch in phase two. Periodic bathymetric surveys will be conducted after CCR removal is complete (and after any potential resuspension has settled) to confirm removal. The data will be used to determine if designed dredge elevations have been achieved and where additional dredging may be needed. Areas where additional dredging is needed will also be re-surveyed, utilizing the same procedures, to confirm removal. Once CCR removal and decontamination of the CCR unit are complete, groundwater monitoring will be completed to demonstrate concentrations do not exceed the groundwater protection standard for either two consecutive monitoring events or three years, as applicable.

CLOSURE PLAN DESCRIPTION (cont'd)

(b)(1)(iii) If closure of the CCR unit will be accomplished by leaving CCR in place, a description of the final cover system, designed in accordance with paragraph (d) of this section (§257.102), and the methods and procedures to be used to install the final cover. The closure plan must also discuss how the final cover system will achieve the performance standards specified in paragraph (d) of this section (§257.102).

N/A

INVENTORY AND AREA ESTIMATES

(b)(1)(iv) – Estimate of the maximum inventory of CCR ever on-site over the active life of the CCR unit

Approx. 1.5M cubic yards
(in place volume)

(b)(1)(v) – Estimate of the largest area of the CCR unit ever requiring a final cover

N/A

CLOSURE SCHEDULE

(b)(1)(vi) – A schedule for completing all activities necessary to satisfy the closure criteria in this section, including an estimate of the year in which all closure activities for the CCR unit will be completed. The schedule should provide sufficient information to describe the sequential steps that will be taken to close the CCR unit, including identification of major milestones such as coordinating with and obtaining necessary approvals and permits from other agencies, the dewatering and stabilization phases of CCR surface impoundment closure, or installation of the final cover system, and the estimated timeframes to complete each step or phase of CCR unit closure. When preparing the written closure plan, if the owner or operator of a CCR unit estimates that the time required to complete closure will exceed the timeframes specified in paragraph (f)(1) of this section (§257.101), the written closure plan must include the site-specific information, factors and considerations that would support any time extension sought under paragraph (f)(2) of this section (§257.101).

Initial Written Closure Plan Placed in Operating Record	April 17, 2018, revised August 30, 2019, revised April 11, 2025
Notification of Intent to Close Placed in Operating Record	December 17, 2015, revised August 30, 2019
Closure Initiated (cease receipt of non-CCR wastes)	October 21, 2020
Closure Design Activities	2019-2021
Agency coordination and permit acquisition - Coordinating with state agencies for compliance - Acquiring state permits	2019-2022 2021-2022
Mobilization	April 2021
CCR Material Excavation and Dewatering - Phase 1 - Phase 2	June 2021 – October 2024 June 2021 – December 2023 January 2024 – October 2024
CCR Material Off-site Disposal	June 2021 – October 2024
Site Restoration	November 2023 – November 2024
Meet Groundwater Protection Standard	2025 (estimated)
Estimate of Year in which all closure activities will be completed	2025
Certification by qualified professional engineer appended to this plan.	

Revision Log

The table below provides a description of revisions to the Closure Plan for Bottom Ash Impoundment.

0	04/17/2018	Initial plan.
1	08/30/2019	Changed text on page 1.
2	04/11/2025	Revised to include details of final closure plan, construction activities and revised schedule.

Certification Statement 40 CFR § 257.102(b)(4) – Amended Written Closure Plan for a CCR Surface Impoundment

CCR Unit: DTE Energy Monroe Power Plant Inactive Bottom Ash Impoundment

I, Andrew N. Rodzianko, being a Registered Professional Engineer in good standing in the State of Michigan, do hereby certify, to the best of my knowledge, information, and belief, that the information contained in this certification has been prepared in accordance with the accepted practice of engineering. I certify, for the above-referenced CCR Unit, that the information contained in the amended written closure plan (Rev 2) dated April 11, 2025 meets the requirements of 40 CFR § 257.102(b).



Andrew N. Rodzianko, PE

4/11/25

Date

