



Date: September 15, 2023

To: Chris Scieszka, Environmental Management & Safety
DTE Electric Company

From: Allyson Myers, P.E., Burns & McDonnell Michigan, Inc.

Subject: Certification of CCR Removal in Preparation of Closure of the Belle River Diversion Basin

The purpose of this memorandum is to present the results of construction observation, documentation, and work performed by Burns & McDonnell (BMcD) during the removal of coal combustion residuals (CCR) from the Diversion Basin at Belle River Power Plant and to certify the removal of the disposed CCR waste materials in accordance with the CCR Closure Plan. The CCR surface impoundment is subject to Federal Standards for the Disposal of Coal Combustion Residuals in Landfills and Surface Impoundments per 40 CFR 257 Subpart D and Michigan Part 115 regulations. The CCR unit is owned and operated by DTE Electric Company (DTE).

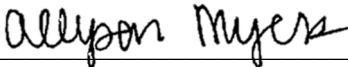
DTE retained Barton Malow Company (BMC) to remove ponded CCR waste from the Impoundment, and retained BMcD as certifying engineer to certify that ponded CCR waste in the Impoundment has been removed in accordance with Section 4.1 of the *Belle River Power Plant Diversion Basin Closure Plan*, referred to herein as the “Closure Plan.”

CCR removal was planned within the limits of the Diversion Basin, indicated as the Cold Weather Diversion System for the Ash Settling Basin (Belle River Bottom Ash Basins) in Drawing 6C1258-854, which represents the known extent of the Diversion Basin. The excavation of CCR material was completed down to underlying clay and included removal of a cemented ash layer discovered across the floor of the basin. Figure No. 1 indicates the top of the cemented ash layer as surveyed by BMC on June 6, 2023. The cemented ash layer ranged in thickness from approximately 1.5-2 feet and was underlain with very soft clay material. Overexcavation of the underlying native clay was completed with cemented ash removal so the mechanical equipment could safely work their way out of the Basin. Figure No. 2 indicates the finished excavation grade as surveyed by BMC and as observed and certified by BMcD. BMcD completed inspections on June 29, 2023, and July 11, 2023, correlating with the aerial surveys completed by BMC, as well as one additional inspection July 19, 2023, to document the removal of slope material which had been blocked by the bypass pumping system equipment. Excavated material was disposed of in the Range Road Landfill (a licensed coal ash landfill) north of the plant. After CCR removal, the basin slopes were finish graded and seeded.

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CERTIFICATION

As required by 40 CFR 257.102(f)(3), I hereby certify that removal of CCR from the Diversion Basin at Belle River Power Plant was completed in accordance with (1) the written closure plan prepared as required by 40 CFR 257.102(b)(2) and (2) the CCR removal requirement of 40 CFR 257.102(c). BMcD understands that a notification of closure will be certified by a qualified professional engineer once groundwater monitoring parameters are demonstrated to meet groundwater protection standards for two consecutive sampling events.



Allyson Myers, P.E.
(Michigan License No. 6201312005)

September 15, 2023

Date

- Attachments –
1. Existing Drawing
 2. Figures
 3. Photographs



09/15/2023

ATTACHMENT 1 – EXISTING DRAWING

ATTACHMENT 2 – FIGURES

NOTES:

1. SURVEY AND AERIAL IMAGERY BY BARTON MALOW CONSTRUCTION CONDUCTED ON 06/06/23.
2. HORIZONTAL DATUM IS MICHIGAN SOUTH STATE PLANE NAD83 IN FT. VERTICAL DATUM IS PLANT DATUM (+0.965 FT FROM NAVD88).



date 7/10/23

designed A. MYERS

DTE ENERGY
BELLE RIVER POWER PLANT
TOP OF CEMENTED LAYER GRADE
DIVERSION BASIN

project
153316

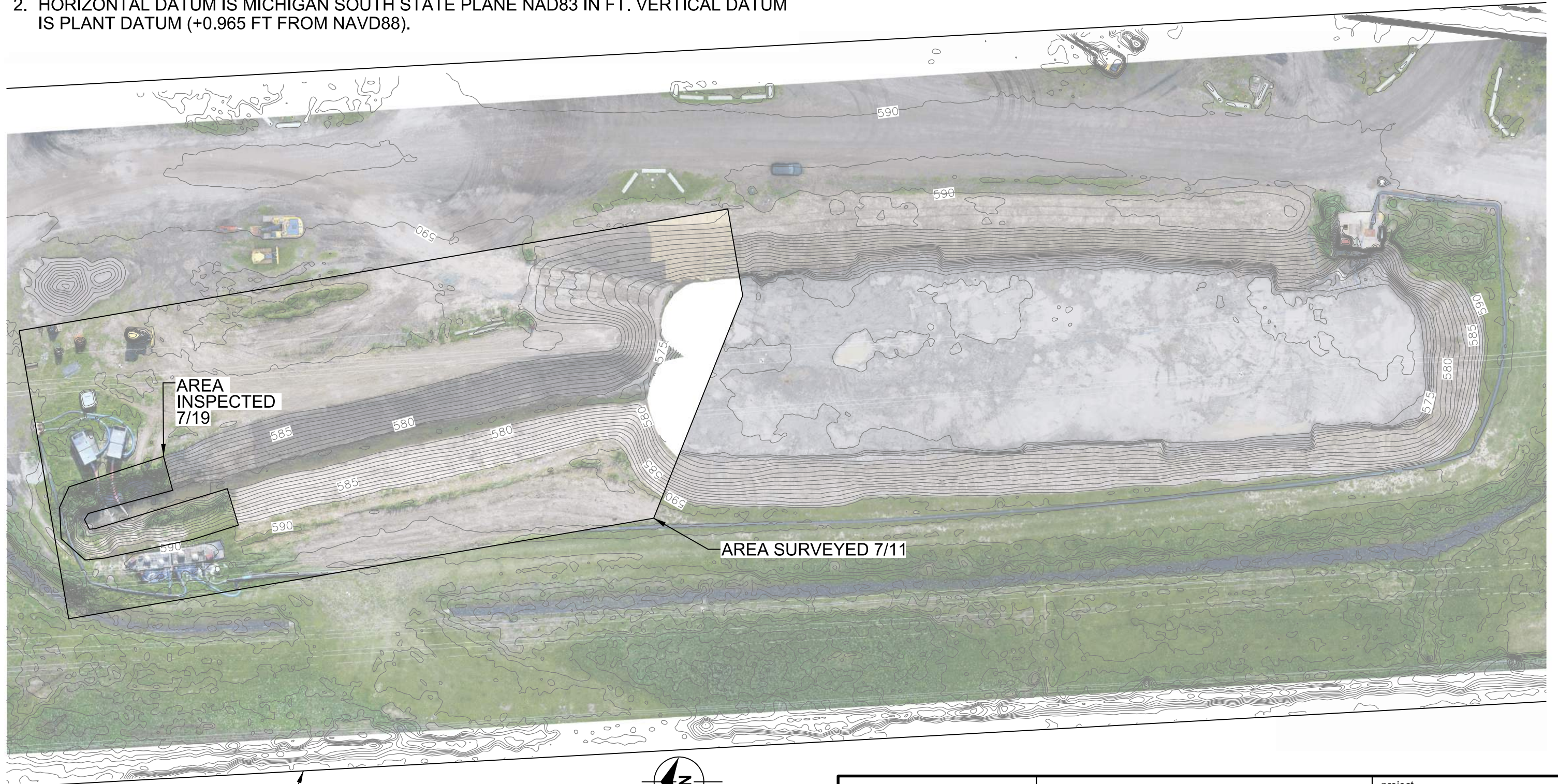
contract
-

dwg
FIGURE 1


rev
A

NOTES:

1. SURVEY AND AERIAL IMAGERY BY BARTON MALOW CONSTRUCTION CONDUCTED ON 06/29/23 AND 07/11/23. BASIN SUBGRADE WAS INSPECTED 6/29/23, 7/11/23, AND 7/19/23.
2. HORIZONTAL DATUM IS MICHIGAN SOUTH STATE PLANE NAD83 IN FT. VERTICAL DATUM IS PLANT DATUM (+0.965 FT FROM NAVD88).



AREA SURVEYED 6/29

 date 08/04/23 designed A. MYERS	DTE ENERGY BELLE RIVER POWER PLANT CCR EXCAVATION GRADE DIVERSION BASIN	project	153316
		contract	-
		dwg	rev
		FIGURE 2	A

ATTACHMENT 3 – PHOTOGRAPHS



Photo 1: Diversion Basin pre-construction, S end looking N. (11/07/22)

DTE Belle River Power Plant
Diversion Basin Closure



Photo Log
Diversion Basin CQA
China Twp., MI



Photo 2: Diversion Basin pre-construction, access ramp looking S. (11/07/22)



Photo 3: Diversion Basin pre-construction, inlet at N channel. (11/07/22)

DTE Belle River Power Plant
Diversion Basin Closure



Photo Log
Diversion Basin CQA
China Twp., MI



Photo 4: Diversion Basin pre-construction, W side of N channel looking SE. (11/07/22)



Photo 5: Diversion Basin pre-construction, W slope looking SE. (11/07/22)

DTE Belle River Power Plant
Diversion Basin Closure



Photo Log
Diversion Basin CQA
China Twp., MI



Photo 6: Hardened CCR material discovered below initial CCR removal (6/6/2023)



Photo 7: Top of hardened CCR layer in Diversion Basin bottom (6/6/2023)

DTE Belle River Power Plant
Diversion Basin Closure



Photo Log
Diversion Basin CQA
China Twp., MI



Photo 8: Typical Diversion Basin slopes prior to excavation of hardened CCR material (6/6/2023)



Photo 9: Overview of completed CCR removal and overexcavation in Diversion Basin (6/29/2023)

DTE Belle River Power Plant
Diversion Basin Closure



Photo Log
Diversion Basin CQA
China Twp., MI



Photo 10: Excavation at east slope, looking south (6/29/2023)



Photo 11: Excavation at west slope, looking north (6/29/2023)



Photo 12: Removal of hardened CCR and overexcavation, in the ramp area (6/29/2023)



Photo 13: E side of N channel, CCR removal and overexcavation complete, looking S (6/29/2023)



Photo 14: W side of N channel, CCR removal & overexcavation complete, topsoil applied to E side, looking S (7/11/2023)



Photo 15: W side of N channel, CCR removal & overexcavation complete, topsoil applied to E side, looking N (7/11/2023)



Photo 16: Ramp area, CCR removal and overexcavation complete, Looking W. (7/11/2023)



Photo 17: Ramp area, CCR removal and overexcavation complete, Looking S. (7/11/2023)

DTE Belle River Power Plant
Diversion Basin Closure



Photo Log
Diversion Basin CQA
China Twp., MI



Photo 18: North end of N. channel, remaining CCR removal and overexcavation complete, looking S. (7/19/2023)