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TECHNICAL MEMORANDUM

TO: Dennis Leonard, DTE Energy
Mike Karmol, DTE Energy

DATE: December 11, 2015

BY: Scott Hutsell, AECOM

PROJECT: DTE NOI – Inactive CCR Impoundment

RE: **Notice of Intent Inactive CCR Impoundment
DTE Monroe Power Plant**

Notice Of Intent

This Notice of Intent is required by the United States Environmental Protection Agency under the HAZARDOUS AND SOLID WASTE MANAGEMENT SYSTEM; DISPOSAL OF COAL COMBUSTION RESIDUALS FROM ELECTRIC UTILITIES [RIN-2050-AE81; FRL-9149-4] (EPA Final CCR Rule) Presented below is the project background, summary of findings, limitations, and certification.

1.0 SITE BACKGROUND

The current Inactive CCR Impoundment area was constructed in the late 1960's by building a perimeter dike to surround a low area of the adjacent Lake Erie; the area south of the plant was removed from the Waters of the United States by an Act of Congress prior to plant construction. CCR materials have been placed and allowed to drain into the pond from the north end of the pond; these materials currently form a delta that extends about 1/3 of the way into the pond.

2.0 REGULATORY BACKGROUND

Under the provisions of part § 257.100 of the EPA Final CCR Rule, DTE can complete dewatering and final closure of the Inactive CCR Impoundment by April 17, 2018 and the area will not be subject to the other Final CCR Rule requirements. The Notice of Intent to initiate closure shall be posted to the operating record by December 17, 2015.

3.0 NARRATIVE DESCRIPTION OF CLOSURE

The Inactive CCR Impoundment contains CCR materials that have been sluiced to the impoundment over time; fill materials have been added to the impoundment from north to south with initial materials being placed in the Impoundment Area in the mid 1970's. The area defined for closure is shown on Figure 1 and totals approximately 104.48 acres.

Closure will proceed with the following main tasks. A detailed schedule is provided as Attachment A of this submittal.

- 1) Closure Design (Early 2016) – Closure design will include providing final grading and topography for a final cover composed of an 18-inch infiltration layer (minimum permeability of 1×10^{-5} cm/sec overlain by a 6-inch erosion layer (that can sustain vegetation) placed over CCR materials in the impoundment. The closure design will be in accordance with the accepted standard of practice for closure of facilities of this type.
- 2) Dewatering and Runoff Diversion (2016) – The NPDES-permitted outfall for the Inactive CCR Impoundment is a weir located on the west side of the proposed closure area. The outfall elevation of this weir will be lowered to allow for the impoundment to dewater and dry out. Additionally, the Inactive CCR Impoundment receives surface water runoff flow from areas north of the Impoundment, from the Coal Pile area, plant storm water drainage, waste water treatment discharge, air heater wash line, and the bottom ash dewatering system. These flows will be collected and channelized around the Inactive CCR Impoundment and flow into the Coal Pile Runoff Basin to the South.
- 3) Placement of Fill (2016-2017) – Areas near the existing weir inside the Inactive CCR Impoundment have been excavated in the past to provide borrow fill for plant construction. These areas will need to be filled in with regulatory-acceptable fill prior to closure. On-site and off-site fill sources will be considered during the design process.
- 4) Construction of Final Cover (2016-2017) – Closure of the Inactive CCR Impoundment will proceed from north to south and east to west as CCR materials are brought to final grade. An 18-inch infiltration layer (minimum permeability of 1×10^{-5} cm/sec overlain by a 6-inch erosion layer (that can sustain vegetation) will be placed over CCR materials in the impoundment. The area for closure in each construction year will be determined during the design process the construction schedule is provided by (Attachment A)

4.0 CERTIFICATION

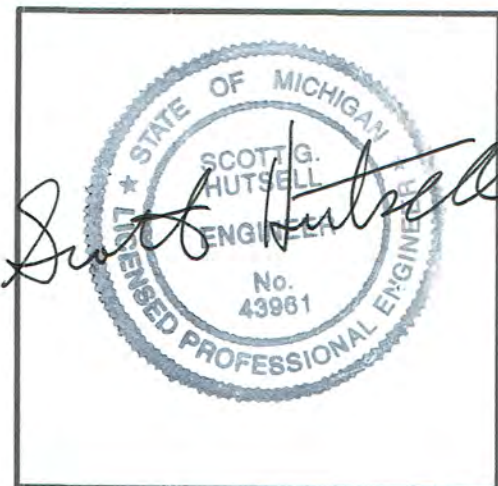
I, Scott G. Hutsell, being a Registered Professional Engineer in good standing in the State of Michigan, do hereby certify, to the best of my knowledge, information, and belief that the information contained in this certification is prepared in accordance with the accepted practice of engineering. I certify, for the above referenced CCR Unit, that the design of the final cover system as currently prepared, will meet the requirements of 40 CFR § 257.100 (b)(3)(i)

SCOTT HUTSELL

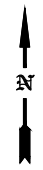
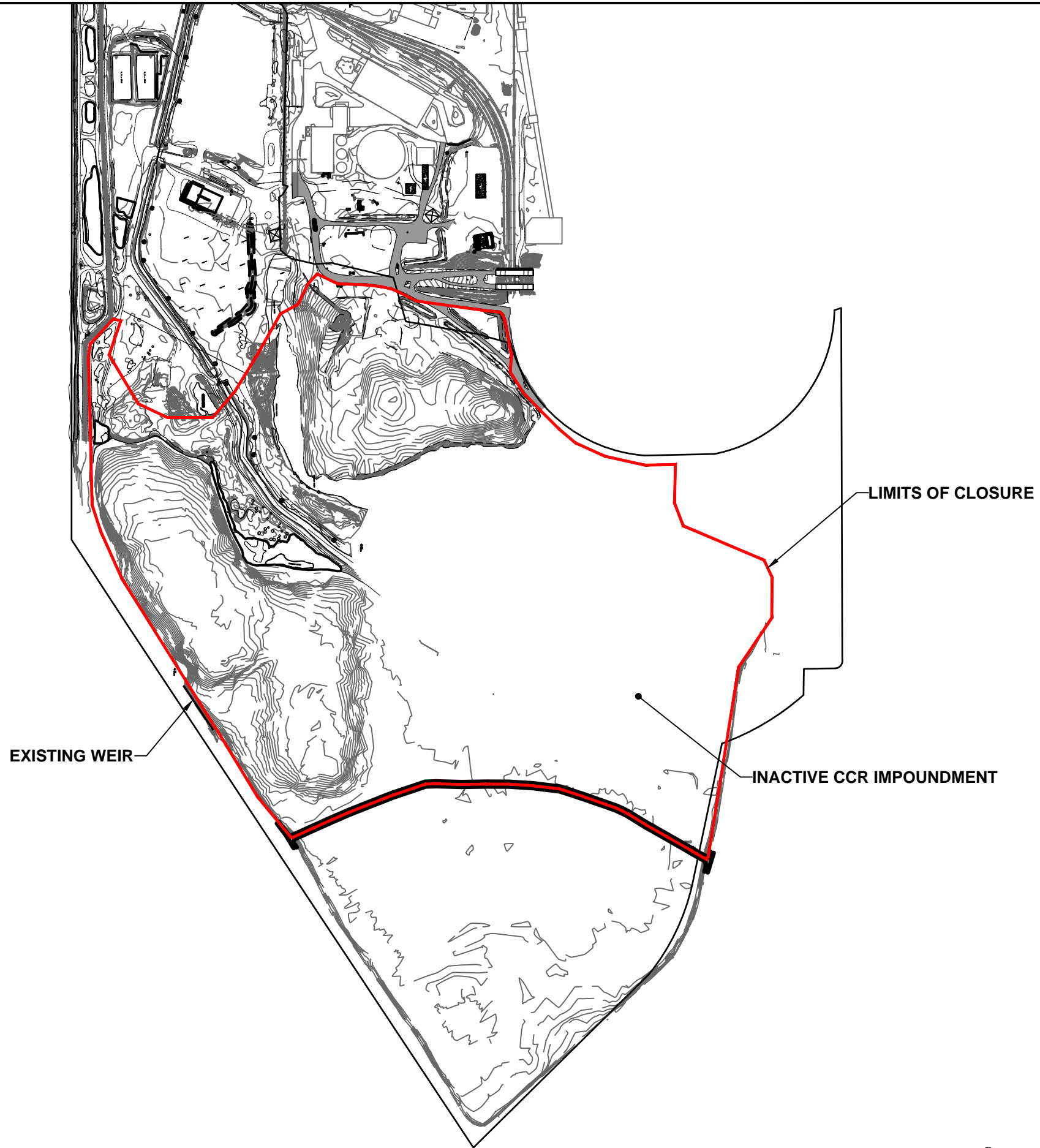
Printed Name

12/11/15

Date



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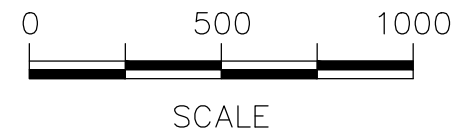
ISSUED FOR BIDDING	DATE	BY

REVISIONS			
NO	DESCRIPTION	DATE	BY
△	-		

RECORD DRAWINGS	DATE	BY

DRAWN	APM	DATE	12/04/2015
CHECKED	SGH	JOB NO	60442587
SCALE	1" = 500'		

DTE ENERGY
 MONROE POWER PLANT
 INACTIVE CCR IMPOUNDMENT AREA
 NOTICE OF INTENT FOR CLOSURE



MONPP NOI Closure Construction Schedule

Activity ID	Activity Name	Start	Finish	2016												2017												2018							
				ct	N	D	Jan	F	M	A	M	J	Jul	A	S	Oct	N	D	J	F	M	Apr	M	J	Jul	A	S	Oct	N	D	J	F	M	A	M
				MONPP NOI Closure Construction Schedule																															
A1110	Complete Surveys of Inactive CCR Impoundment	02-Nov-15 A	10-Feb-16																																
A1000	Place NOI in Operating Record	17-Dec-15 A	17-Dec-15 A																																
A1120	Begin Closure Design of Inactive CCR Impoundment	01-Feb-16*	01-Apr-16																																
A1130	Identify Possible On-Site Fill Sources and Quantities	01-Feb-16	01-Apr-16																																
A1040	Lower Existing Wier/ Dewatering of Inactive CCR Impoundment	01-Mar-16*	01-Aug-17																																
A1140	Upgrade/ Widen Access Roads to Inactive CCR Impoundment	04-Apr-16	30-Jun-16																																
A1150	Construction/Establishment of Contractor Staging Area	01-Jun-16*	29-Jul-16																																
A1230	Seeding/ Restoration of Closure Cover	03-Apr-17*	02-Apr-18																																
A1160	Clearing, Grading & Covering 90% Completion	03-Jul-17*	02-Oct-17																																
A1170	Clearing, Grading & Covering 100% Completion	03-Oct-17	02-Apr-18																																
A1240	As-Built Survey of Closed Inactive CCR Impoundment	01-Mar-18*	02-Apr-18																																
A1180	Signed Certificate		18-Apr-18*																																

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