



June 30, 2020

Mr. Gary Schwerin
Michigan Department of Environment, Great Lakes, and Energy
Materials Management Division
Jackson District Office
301 Louis Glick Highway,
Jackson, MI 49201-1556

Subject: Solid Waste Disposal Area Operating License Application
DTE Electric Company – Monroe Power Plant Bottom Ash Impoundment
3500 East Front Street, Monroe, Michigan

Dear Mr. Schwerin:

Please find attached the DTE Electric Company's (DTE Electric) operating license application for the Monroe Power Plant Bottom Ash Impoundment (Attachment A). Included with the application are copies of the Application Fee Worksheet and check for the license fee, the facility site plan (Attachment B), a copy of the Solid Waste Disposal Area Surety Bond (Attachment C), the description of waste and a proposed special condition (Attachment D), a draft restrictive covenant with a legal description of the impoundment (Attachment E), a checklist of website posting requirements and associated hyperlinks (Attachment F), and an excerpt of the Hydrogeological Monitoring Plan (HMP) and associated Part 115 requirements checklist (Attachment G). A full copy of the HMP is being submitted separately.

I believe that the enclosed Solid Waste Disposal Area Operating License Application is complete. If you have any questions regarding the enclosed information, please do not hesitate to contact me at 313-235-0153 (office) or 248-408-9855 (mobile).

Sincerely,
The DTE Electric Company

Chris Scieszka
Environmental Management and Safety

CC: Brett Coulter – EGLE, MMD, Jackson District Office
Stevie White – EGLE, MMD, Jackson District Office
Margie Ring – EGLE, MMD, Lansing
Jim Arduin – EGLE, MMD, Lansing

Attachments: Attachment A – License to Operate a Solid Waste Disposal Area Application
Attachment B – Site Plan Figure
Attachment C – Financial Assurance
Attachment D – Description of Waste and Special Condition
Attachment E – Draft Restrictive Covenant and Legal description
Attachment F – CCR Website Requirements Checklist
Attachment G – Hydrogeological Monitoring Plan

ATTACHMENT A



COAL COMBUSTION RESIDUALS (CCR)

LICENSE TO OPERATE A SOLID WASTE DISPOSAL AREA APPLICATION

This information is required under the provisions of Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended. Providing false information may result in civil or criminal penalties.

This application is hereby made to the director, Michigan Department of Environment, Great Lakes, and Energy for a Coal Combustion Residuals (CCR) License to Operate a Solid Waste Disposal Area. Completion of this form is required to obtain a license.

If help is needed to fill out these forms, please contact your Materials Management Division (MMD) District Office. MMD District Office location information is available on the Department of Environment, Great Lakes, and Energy (EGLE), MMD, web site at: <https://www.michigan.gov/egle> and by clicking on "Locations" in the upper right hand corner. All fields are required.

I. FACILITY NAME AND LOCATION

A CCR solid waste disposal area includes coal ash landfills and coal ash surface impoundments. Two or more disposal areas may be combined into one facility on a single license. If separate disposal areas are desired, then separate applications are needed.

NAME OF FACILITY: Monroe Power Plant Bottom Ash Impoundment			WDS ID NUMBER: 397800	
PHYSICAL ADDRESS: 3500 East Front Street		TOWNSHIP: Monroe and French Charter	COUNTY: Monroe	
CITY: Monroe	STATE: MI	ZIP CODE: 48161-	TELEPHONE: (313) 235-0153 x	
LEGAL NAME OF FACILITY OWNER: DTE Electric Company				

II. OPERATOR/APPLICANT

A Michigan Corporate ID Number is 9 digits. Municipally owned facilities usually do not have a Michigan Corporate ID Number. Enter "N/A" or "Municipality" for these.

LEGAL NAME OF OPERATOR/APPLICANT: DTE Electric Company			
MAILING ADDRESS: One Energy Plaza		CITY: Detroit	
STATE: MI	ZIP CODE: 48226-	TELEPHONE: (313) 235-0153 x	MICHIGAN CORPORATE ID NUMBER: 285655
RESPONSIBLE INDIVIDUAL: Christopher Scieszka		TITLE: Staff Engineer - Env	TELEPHONE: (313) 235-0153 x
PERSON PREPARING APPLICATION: Christopher Scieszka		TITLE: Staff Engineer - Env	TELEPHONE: (313) 235-0153 x

III. PROPERTY OWNER(S) and MINERAL RIGHTS OWNER(S)

List all entities that own a portion of either the property and/or mineral rights. If there are multiple owners and/or contact persons, attach a separate sheet, and indicate in space provided.

NAME OF OWNER: DTE Electric Company		TELEPHONE: (313) 235-0153 x	
CONTACT PERSON Christopher Scieszka		TELEPHONE: (313) 235-0153 x	
ADDRESS: One Energy Plaza	CITY: Detroit	STATE: MI	ZIP CODE: 48226-

IV. APPLICATION TYPE:

- | | | |
|---|---|---|
| <input checked="" type="checkbox"/> First application for a new disposal area | <input type="checkbox"/> Renewal of previous activities | <input type="checkbox"/> Previous license expired |
| <input type="checkbox"/> Change in owner | <input type="checkbox"/> Renewal with application for additional authorization (Landfills only) | |

V. CONSTRUCTION PERMIT (Number(s) and date(s) issued)

List all that currently apply to facility. Attach separate sheet if necessary.

PERMIT NUMBER	ISSUE DATE	PERMIT NUMBER	ISSUE DATE

**COAL COMBUSTION RESIDUALS (CCR) LICENSE TO
OPERATE A SOLID WASTE DISPOSAL AREA APPLICATION**

VI. TYPE OF DISPOSAL AREA *Check all that apply. More than one may be selected.*

	RENEWAL	NEW
<input type="checkbox"/> Coal Ash Landfill	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/> Coal Ash Surface Impoundment	<input type="checkbox"/>	<input checked="" type="checkbox"/>

VII. FEE AND APPLICATION DOCUMENTS *Check all that apply*

Combined Facility Area Summary and License Application/Annual Fee Worksheet:	<input checked="" type="checkbox"/> Attached		
Copy of Application Fee check:	<input checked="" type="checkbox"/> Attached	<input type="checkbox"/> N/A	Amount \$13,000.00
Construction Certification:	<input type="checkbox"/> Attached	<input checked="" type="checkbox"/> No new construction	
Declaration of Restrictive Covenant:	<input checked="" type="checkbox"/> Attached	<input type="checkbox"/> N/A	<input type="checkbox"/> Previously submitted
Perpetual Care Fund (PCF) Agreement:	<input type="checkbox"/> Attached	<input checked="" type="checkbox"/> N/A	<input type="checkbox"/> Previously submitted
PCF Financial Statement:	<input type="checkbox"/> Attached	<input checked="" type="checkbox"/> N/A	
Financial Assurance documents:	<input checked="" type="checkbox"/> Attached	<input type="checkbox"/> N/A	
Facility Map:	<input checked="" type="checkbox"/> Attached		
Financial Assurance forms:	<input checked="" type="checkbox"/> A	<input type="checkbox"/> D	

VIII. TYPE OF WASTE: *Check one*


<input type="checkbox"/> Same as previously authorized	<input checked="" type="checkbox"/> Change or first application: Separate description attached as necessary
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IX. SPECIAL CONDITION(S): *Check all that apply. Attach separate sheet if necessary.*


<input type="checkbox"/> N/A	<input type="checkbox"/> Alternative Daily Cover(s)	<input type="checkbox"/> Request Attached	<input type="checkbox"/> Request Previously Approved (date):
	<input type="checkbox"/> Leachate Recirculation	<input type="checkbox"/> Request Attached	<input type="checkbox"/> Request Previously Approved (date):
	<input checked="" type="checkbox"/> Other: Perpetual Care Fund	<input checked="" type="checkbox"/> Request Attached	<input type="checkbox"/> Request Previously Approved (date):

The undersigned certify that they are fully authorized as a signatory by the party they represent, and that this information and all attached pages are correct and complete.

Any person signing as a representative for the operator, facility owner, and/or property owner must certify that they are an authorized signatory for that person.

OPERATOR'S SIGNATURE:  DATE: 6/30/2020
TYPED or PRINTED NAME: Christopher Scieszka TITLE: Staff Engineer - Env

FACILITY OWNER'S SIGNATURE:  DATE: 6/30/2020
TYPED or PRINTED NAME: Christopher Scieszka TITLE: Staff Engineer - Env

PROPERTY OWNER'S SIGNATURE:  DATE: 6/30/2020
TYPED or PRINTED NAME: Christopher Scieszka TITLE: Staff Engineer - Env

FACILITY AREA SUMMARY

LEGAL NAME OF FACILITY: Monroe Power Plant Bottom Ash Impoundment

WDS ID NUMBER: 397800

DETAILED FACILITY DESCRIPTION


Active Portion(s): To be an active portion, it must have been included in the previous license as active, a constructed area certified with the previous application, or an unconstructed area with financial assurance that was both constructed and certified during the previous license period.

This format should be used to describe the following individual areas: **Area identifier, acreage, date certified closed.**

1.	Coal Ash Landfill (number of cells or units)	SUBTOTAL	acres
2.	Coal Ash Surface Impoundment (number of cells or units) Inactive Bottom Ash Impoundment, 86.431 acres	SUBTOTAL	86.431 acres
3.	Unconstructed Area(s) with Financial Assurance <i>Permitted but unconstructed.</i>	SUBTOTAL	acres
Closed Portion(s): To be a closed portion, a final cover must be in place, a final cover must be properly certified, and certification must be approved by MMD.			
4.	Coal Ash Landfill (number of cells or units)	SUBTOTAL	acres
5.	Coal Ash Surface Impoundment (number of cells or units)	SUBTOTAL	acres

Facility Area NOTE: This area is the entire property and should equal the total of Items 1 – 5 above.

TOTAL 86.431 acres

Preparer's Signature: 

Date: 6/30/2020

Typed or Printed Name: Christopher Scieszka

Title: Staff Engineer - Env

Telephone: Office: 313-235-0153

Cell: 248-408-9855

Fax: _____

E-mail: christopher.scieszka@dteenergy.com

**COAL COMBUSTION RESIDUALS (CCR) LICENSE TO
OPERATE A SOLID WASTE DISPOSAL AREA APPLICATION**

**LICENSE TO OPERATE APPLICATION
FEE WORKSHEET/TABLE**


WASTE AMOUNT: Remaining Capacity: cubic yards
Air Space (cubic yards) OR Years Projected:

For Cashier's Use Only:	CCR
Accounting Template:	761RSWCCR

LEGAL NAME OF FACILITY: Monroe Power Plant Bottom Ash Impoundment	WDS ID NUMBER: 397800
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ANNUAL FEE			
	Type of Disposal Area	Annual Fee	
<input type="checkbox"/>	Coal Ash Landfill	\$13,000/unit	\$
<input type="checkbox"/>	Coal Ash Surface Impoundment	\$13,000/unit	\$
ANNUAL FEE SUBTOTAL			\$
ANNUAL FEE TOTAL (Enter here and Section VII of the License Application Form)			\$

LICENSE APPLICATION FEE			
	Type of Disposal Area	License Application Fee	
<input type="checkbox"/>	Coal Ash Landfill	\$13,000/unit	\$
<input checked="" type="checkbox"/>	Coal Ash Surface Impoundment	\$13,000/unit	\$13,000.00
LICENSE APPLICATION FEE SUBTOTAL			\$13,000.00
LICENCE APPLICATION FEE TOTAL (Enter here and Section VII of the License Application Form)			\$13,000.00

Preparer's Signature:  Date: 6/30/2020
Typed or Printed Name: Christopher Scieszka Title: Staff Engineer - Env
Telephone: Office: 313-235-0153 Cell: 248-408-9855 Fax: _____ E-mail: christopher.scieszka@dteenergy.com

Make check or money order payable to:	REMIT TO:
STATE OF MICHIGAN	MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY CASHIER OFFICE PO BOX 30657 LANSING, MI 48909-8157
<i>Return this completed and signed Worksheet and the fee to the Cashier Office.</i>	

All facilities return the remainder of the application documents, a *copy* of this Worksheet, a *copy* of the application fee, and any attachments directly to the Department of Environment, Great Lakes, and Energy through the Materials Management Division's District Office. If the proposed disposal area is located in Wayne County, return a *copy* of the remainder of the application documents, a *copy* of this Worksheet, a *copy* of the application fee, and *copies* of any attachments to Wayne County Land Resource Management Division.

**COAL COMBUSTION RESIDUALS (CCR) LICENSE TO
OPERATE A SOLID WASTE DISPOSAL AREA APPLICATION**

**FORM A (CCR ONLY)
FINANCIAL ASSURANCE REQUIRED¹**

LEGAL NAME OF FACILITY: Monroe Power Plant Bottom Ash Impoundment	WDS ID NUMBER: 397800
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Reason for Submittal:

☒ License Application

☐ Reduction in Cost Estimate

☐ Release in Cost Estimate

FACILITY CLOSURE COST ESTIMATE

1.	Total Acreage of Unit(s):	86.431 acres	
2.	Bonding for Unit(s) (line 1 x \$20,000) (Maximum Bond Amount of \$1,000,000, Minimum of \$20,000)		\$1,000,000.00
3.	Corrective Action Cost Estimate (Form D, line 10)	\$	
4.	Other required Financial Assurance:	\$	
5.	Total Cost Estimate (lines 2 + 3 + 4):		\$1,000,000.00

FINANCIAL ASSURANCE PROVIDED

6.	Existing Bond(s) to be used during licensing period (Submit evidence of continuation if applicable): Financial Institution Name(s) (List on separate sheet if needed) Amount(s) Type(s) ² Account Number(s)		
a.		\$	
b.		\$	
7.	New Bond(s) to this application: Financial Institution Name(s) (List on separate sheet if needed) Amount(s) Type(s) ² Account Number(s)		
a.	Liberty Mutual Insurance Company	\$1,000,000.00	Surety Bond [REDACTED]
b.		\$	
8.	Total of Bonds (lines 6a + 6b + 7a + 7b):	\$	
9.	Current Balance of Perpetual Care Fund (Attach current statement) Financial Institution Name(s) (List on separate sheet if needed) PCF Amount(s) PCF Account #(s)		
a.		\$	
b.		\$	
10.	Total Perpetual Care Fund Balance		\$
11.	Total Financial Assurance (lines 8 + 10):	Must be ≥ line 5	\$
12.	Bond(s) to be Reduced/Released (i.e. will not count toward financial assurance requirement) Financial Institution Name(s) Amount(s) Type(s) ³ Account Number(s)		
a.		\$	
b.		\$	
13.	Are all units on the same closure schedule? If No, attach a separate summary sheet. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		

Preparer's Signature: 

Date: 6/30/2020

Typed or Printed Name: Christopher Scieszka

Title: Staff Engineer - Env

Telephone: Office: 313-235-0153

Cell: 248-408-9855

Fax: _____

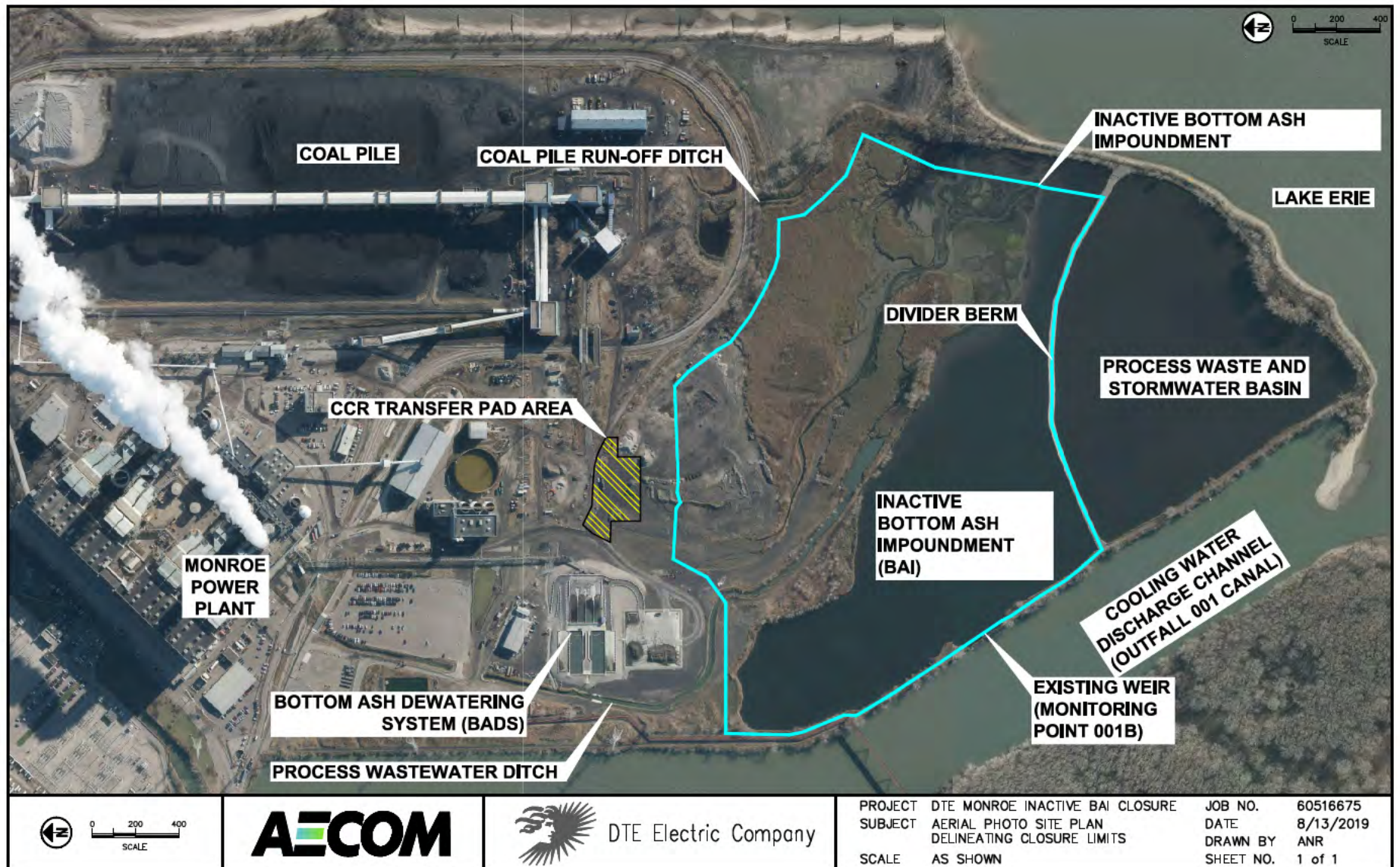
E-mail: christopher.scieszka@dteenergy.com

¹ This form may also be used to request a reduction in the approved cost estimates and corresponding financial assurance.

² Insurance may not be used to cover corrective action costs.

³ Bond types include surety bond, certificate of deposit, cash bond, irrevocable letter of credit, insurance, trust fund, or escrow account.

ATTACHMENT B



ATTACHMENT C

FINANCIAL INFORMATION

ATTACHMENT D

Description of Waste and Special Condition

Description of waste – Coal Ash

Special Conditions - Coal ash is no longer routed to the Monroe Power Plant Bottom Ash Impoundment, and thus DTE feels it is unnecessary to establish a perpetual care fund under section 11523. Email correspondence from the Department received on April 6, 2020, concluded that establishing a perpetual care fund for a unit that does not receive coal ash would be a waste of resources and that we would address the requirement in a special condition in the license.

Proposed Special Condition for Monroe Power Plant Bottom Ash Impoundment to be included in the operating license –

1. In the event that DTE elects to place additional coal ash in the inactive impoundment, DTE must establish a perpetual care fund account prior to any such placement.

ATTACHMENT E

DECLARATION OF RESTRICTIVE COVENANT

Recorded to fulfill a licensure requirement under provisions of Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, MCL 324.11501 et seq.

THIS INDENTURE made the XX, day of XXXX, 2020, by DTE Electric Company whose address is One Energy Plaza, Detroit, Michigan 48226.

WHEREAS, application for licensure under provisions of Part 115, for the purpose of conducting, managing, maintaining, or operating a disposal area upon lands situated in the Townships of Monroe and Frenchtown Charter, County of Monroe, has been properly made by DTE Electric Company; and

WHEREAS, the Director of the Department of Environment, Great Lakes, and Energy will contemporaneously issue such license to the 86.431 acre facility.

WHEREAS, Part 115, Section 11518, requires that at the time of licensing of a sanitary landfill an instrument which imposes a restrictive covenant upon the land involved shall be executed by all the owners of the tract of land upon which the landfill is located.

NOW THEREFORE, the legal description of the 86.431 acre facility (or portion of land containing _____ acres of the facility) upon which this restrictive covenant is imposed is set forth in Attachment A. Attachment A also contains a map depicting the following:

- a. the facility boundary,
- b. the solid waste boundary, and,
- c. the boundary of the land upon which the restrictive covenant is imposed, as described in Attachment A, with Metes and Bounds for each section of traverse labeled.

NOW THEREFORE, DTE Electric Company, do for themselves, their heirs, successors, lessees, or assigns declare, covenant, and agree:

1. That the lands upon which this restrictive covenant is imposed have been or will hereafter be used as a coal ash surface impoundment, and that neither they, nor their servants, agents, employees, nor any of the heirs, successors, lessees or assigns shall (or shall by their leave or sufferance permit others to) engage in filling, grading, excavating, drilling, or mining of the lands and premises above described until 50 years after completion of all landfill activity upon the same, unless written authorization therefore is obtained from the Director of the Department of Environment, Great Lakes, and Energy and that the state of Michigan or any municipality may in addition to any other remedy available at law bring an action for an injunction or other process against any person, county, or municipality to restrain or prevent any violation of the restrictive covenant hereby imposed upon the subject premises.
2. That at such time the coal ash surface impoundment is certified closed by removal of all CCR within the solid waste boundary, the restrictive covenant may be removed from the deed.
3. That at the time of the sealing and delivery of this instrument, the above described premises are free from all encumbrances (other than liens, mortgages, judgement liens, mechanics' liens, accrued or unpaid taxes, leases other than mineral leases, or other security interests).

A (Corporation)

Grantor

By _____

* insert typed name

Its _____

STATE OF MICHIGAN)
) ss
COUNTY OF _____)

The foregoing instrument was acknowledged before me this _____ day of _____, 20_____,
by _____, the _____, of _____, a
Michigan Corporation.

Form prepared/drafted by:

(Christopher Scieszka)
(DTE Energy)
(One Energy Plaza)
(Detroit, MI 48226)

* _____, Notary Public
_____ County, Michigan
My Commission Expires _____

By _____

Rhonda S. Oyer, Manager,
Solid Waste Section,
Materials Management Division
for the Director Liesl Eichler Clark
Department of Environment, Great Lakes, and Energy

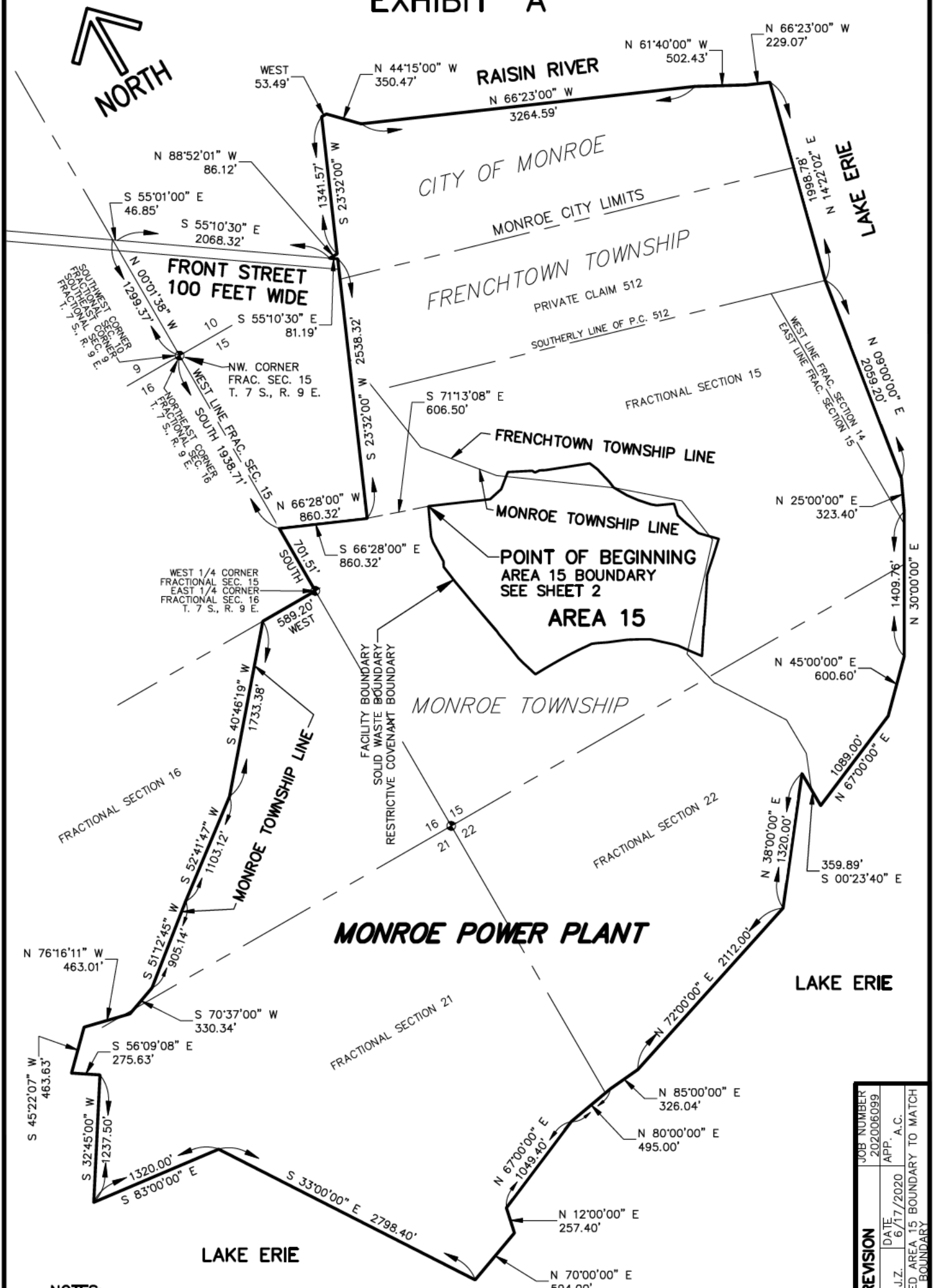
STATE OF MICHIGAN)
) ss
COUNTY OF INGHAM)

The foregoing instrument was acknowledged before me this _____ day of _____, 20_____,
by _____, Section Manager, of the Solid Waste Section, Materials Management Division,
for the Director of the Department of Environment, Great Lakes, and Energy, on behalf of the state of Michigan.

* _____, Notary Public
_____ County, Michigan
Acting in Ingham County, Michigan
My Commission Expires _____


When recorded, return to:
Michigan Department of Environment, Great Lakes, and Energy
Materials Management Division
Solid Waste Section
P.O. Box 30241, Lansing, Michigan 48909-7741

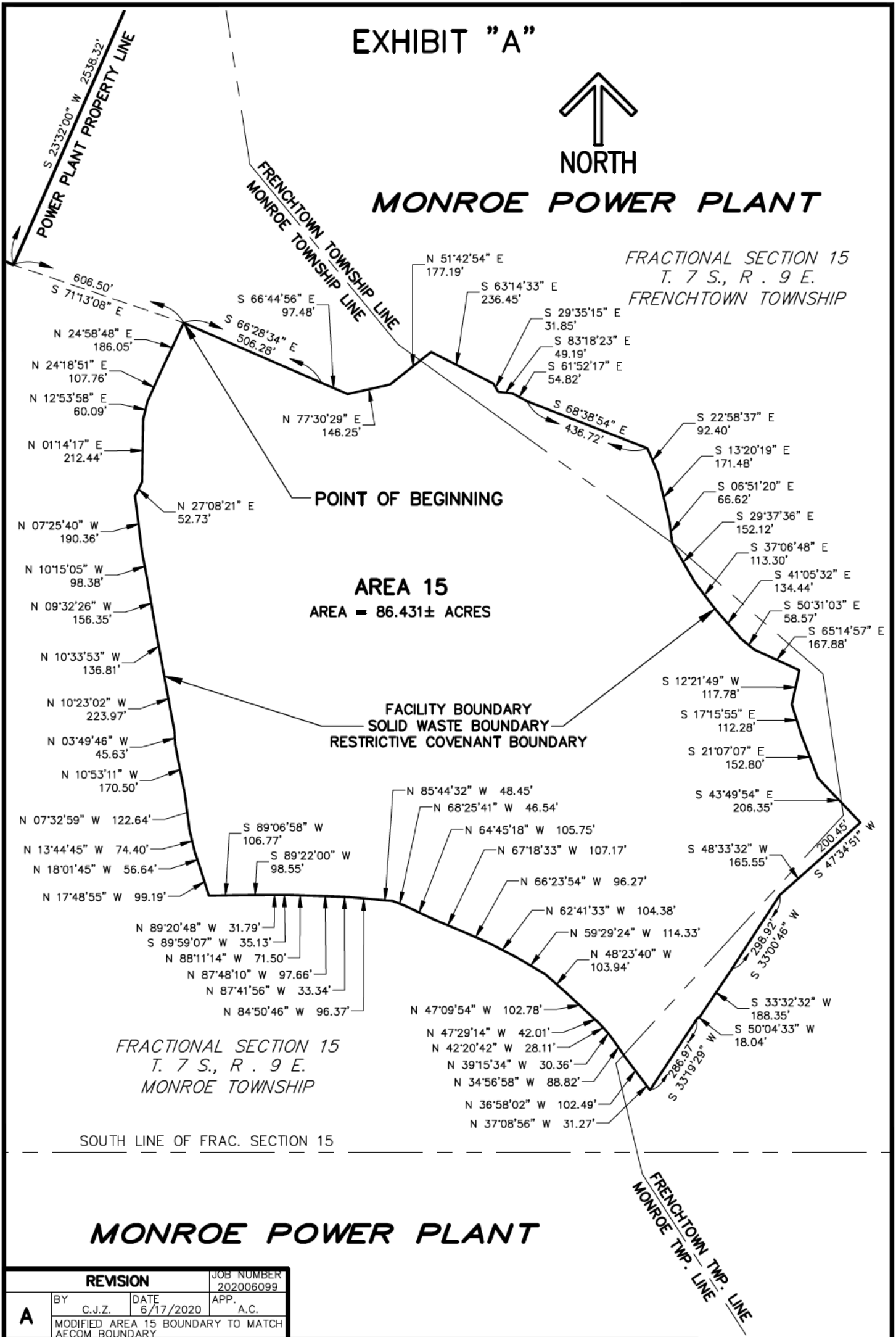
EXHIBIT "A"




NOTES:
BEARING STRUCTURE BASED ON DETROIT EDISON DRAWING NO. 6MS 695-24.
DRAWING IS BASED ON EXISTING RECORDS. NO BOUNDARY SURVEY WORK HAS BEEN PERFORMED
ON THIS SITE AT THIS DATE.

REVISION			JOB NUMBER
BY	DATE	APP.	202006099
C.J.Z.	6/17/2020	A.C.	
MODIFIED AREA 15 BOUNDARY TO MATCH AECOM BOUNDARY			
A			

 DTE Energy DTE Electric Company CENTRAL DESIGN SURVEYING SERVICES 545 SERVICE BUILDING	MAP AND DESCRIPTION OF AREA 15 BOUNDARY IN PART OF FRAC. SEC. 15, T. 7 S., R. 9 E. FRENCHTOWN & MONROE TWPS., MONROE COUNTY, MICHIGAN MONROE POWER PLANT			SHEET 1 OF 3	
	SCALE 1 INCH= 1200 FEET	DRAWN BY C. ZBOCH	SURVEY ENGINEER A. CASTILLO	DATE OF DRAWING 4/28/2020	JOB NUMBER 202004062 DRAWING NO. SE 0695-067




REVISION			JOB NUMBER
			202006099
A	BY	DATE	APP.
	C.J.Z.	6/17/2020	A.C.
MODIFIED AREA 15 BOUNDARY TO MATCH AECOM BOUNDARY			



DTE Energy
DTE Electric Company
CENTRAL DESIGN
SURVEYING SERVICES
545 SERVICE BUILDING

SCALE



1 INCH = 400 FEET

MAP AND DESCRIPTION		
OF AREA 15 BOUNDARY IN PART OF FRAC. SEC. 15, T. 7 S., R. 9 E. FRENCHTOWN & MONROE TWPS., MONROE COUNTY, MICHIGAN		
MONROE POWER PLANT		
DRAWN BY	SURVEY ENGINEER	DATE OF DRAWING
C. ZBOCH	A. CASTILLO	4/28/2020

SHEET 2 OF 3	
JOB NUMBER	202004062
DRAWING NO.	SE 0695-067



EXHIBIT "A"

MONROE POWER PLANT AREA 15

Part of Fractional Section 15, Town 7 South, Range 9 East, Frenchtown and Monroe Townships, Monroe County, Michigan, described as:

Commencing at the Northwest corner of Fractional Section 15, thence South, 1938.71 feet; along the West line of Fractional Section 15; thence South 66°28'00" East, 860.32 feet; thence South 71°13'08" East, 606.50 feet, to the **POINT OF BEGINNING**; thence South 66°28'34" East, 506.28 feet; thence South 66°44'56" East, 97.48 feet; thence North 77°30'29" East, 146.25 feet; thence North 51°42'54" East, 177.19 feet; thence South 63°14'33" East, 236.45 feet; thence South 29°35'15" East, 31.85 feet; thence South 83°18'23" East, 49.19 feet; thence South 61°52'17" East, 54.82 feet; thence South 68°38'54" East, 436.72 feet; thence South 22°58'37" East, 92.40 feet; thence South 13°20'19" East, 171.48 feet; thence South 06°51'20" East, 66.62 feet; thence South 29°37'36" East, 152.12 feet; thence South 37°06'48" East, 113.30 feet; thence South 41°05'32" East, 134.44 feet; thence South 50°31'03" East, 58.57 feet; thence South 65°14'57" East, 167.88 feet; thence South 12°21'49" West, 117.78 feet; thence South 17°15'55" East, 112.28 feet; thence South 21°07'07" East, 152.80 feet; thence South 43°49'54" East, 206.35 feet; thence South 47°34'51" West, 200.45 feet; thence South 48°33'32" West, 165.55 feet; thence South 33°00'46" West, 298.92 feet; thence South 33°32'32" West, 188.35 feet; thence South 50°04'33" West, 18.04 feet; thence South 33°19'29" West, 286.97 feet; thence North 37°08'56" West, 31.27 feet; thence North 36°58'02" West, 102.49 feet; thence North 34°56'58" West, 88.82 feet; thence North 39°15'34" West, 30.36 feet; thence North 42°20'42" West, 28.11 feet; thence North 47°29'14" West, 42.01 feet; thence North 47°09'54" West, 102.78 feet; thence North 48°23'40" West, 103.94 feet; thence North 59°29'24" West, 114.33 feet; thence North 62°41'33" West, 104.38 feet; thence North 66°23'54" West, 96.27 feet; thence North 67°18'33" West, 107.17 feet; thence North 64°45'18" West, 105.75 feet; thence North 68°25'41" West, 46.54 feet; thence North 85°44'32" West, 48.45 feet; thence North 84°50'46" West, 96.37 feet; thence North 87°41'56" West, 33.34 feet; thence North 87°48'10" West, 97.66 feet; thence North 88°11'14" West, 71.50 feet; thence South 89°59'07" West, 35.13 feet; thence North 89°20'48" West, 31.79 feet; thence South 89°22'00" West, 98.55 feet; thence South 89°06'58" West, 106.77 feet; thence North 17°48'55" West, 99.19 feet; thence North 18°01'45" West, 56.64 feet; thence North 13°44'45" West, 74.40 feet; thence North 07°32'59" West, 122.64 feet; thence North 10°53'11" West, 170.50 feet; thence North 03°49'46" West, 45.63 feet; thence North 10°23'02" West, 223.97 feet; thence North 10°33'53" West, 136.81 feet; thence North 09°32'26" West, 156.35 feet; thence North 10°15'05" West, 98.38 feet; thence North 07°25'40" West, 190.36 feet; thence North 27°08'21" East, 52.73 feet; thence North 01°14'17" East, 212.44 feet; thence North 12°53'58" East, 60.09 feet; thence North 24°18'51" East, 107.76 feet; thence North 24°58'48" East, 186.05 feet to the Point of Beginning.

Containing 86.431 acres of land, more or less.

REVISION		JOB NUMBER 202006099	
A	BY C.J.Z.	DATE 6/17/2020	APP. A.C.
	MODIFIED AREA 15 BOUNDARY TO MATCH AECOM BOUNDARY		
 DTE Energy DTE Electric Company CENTRAL DESIGN SURVEYING SERVICES 545 SERVICE BUILDING		MAP AND DESCRIPTION OF AREA 15 BOUNDARY IN PART OF FRAC. SEC. 15, T. 7 S., R. 9 E. FRENCHTOWN & MONROE TWPS., MONROE COUNTY, MICHIGAN MONROE POWER PLANT	
SCALE  1 INCH= N.A. FEET		DRAWN BY C. ZBOCH	SHEET 3 OF 3 JOB NUMBER 202004062 DRAWING NO. SE 0695-067
		SURVEY ENGINEER A. CASTILLO	DATE OF DRAWING 4/28/2020

ATTACHMENT F

Coal Combustion Residuals Public Compliance Website
Coal Ash Surface Impoundment Operating License Checklist for Document Verification
Monroe Power Plant Bottom Ash Impoundment

Rule Section Number	Document Title and Hyperlink	Remarks
257.80(b)	Fugitive Dust Control Plan	
257.83(b)	2015 Annual Inspection	NA, Annual Inspections for inactive impoundments were not required until 2017
257.71	Liner System Certification Report	
257.73(a), (2)	Hazard Potential Classification Assessment	
257.73(a), (3)	Emergency Action Plan	
257.73(a), (3), (i), (E)	2018 Emergency Action Plan Annual Meeting Documentation	
257.73(a), (3), (i), (E)	2019 Emergency Action Plan Annual Meeting Documentation	
257.73(d)	Structural Stability Assessment	
257.73(e)	Safety Factor Assessment	
257.82(c)	Inflow Design Flood Control System Plan	
257.80	2016 Annual Fugitive Dust Control Report	NA, Fugitive Dust Control Reports for inactive impoundments were not required until 2018
257.83(b)	2016 Annual Inspection	NA, Annual Inspections for inactive impoundments were not required until 2017
257.91(f)	Groundwater Monitoring System Certification	
257.93(f)	Selection of Statistical Procedures Certification	
257.93(a)	Sampling and Analysis Procedure (Operating Record - not on website)	Quality Assurance Project Plan (QAPP) included in Hydrogeological Monitoring Plan (HMP)
257.80	2017 Annual Fugitive Dust Control Report	NA, Fugitive Dust Control Reports for inactive impoundments were not required until 2018
257.83(b)	2017 Annual Inspection	
257.102©	Closure Plan, Closure By Removal	
257.104	Postclosure Plan (if Closure In Place)	NA, closure by removal
257.90(e)	Initial (2019) Annual Groundwater Report	
257.94(e), (3)	Notice of Initiation of Assessment Monitoring	NA, unit remains in detection monitoring
257.102	Notification of Intent to Initiate Closure	

Coal Combustion Residuals Public Compliance Website
Coal Ash Surface Impoundment Operating License Checklist for Document Verification
Monroe Power Plant Bottom Ash Impoundment

Rule Section Number	Document Title and Hyperlink	Remarks
257.83(b)	2018 Annual Inspection	
257.60(a), (b), (c)(3)	Demonstrate that unit meets the uppermost aquifer location restriction	
257.61(a), (b), (c)(3)	Demonstrate that unit meets the wetlands location restriction	
257.62(a), (b), (c)(3)	Demonstrate that unit meets the fault areas location restriction	
257.63(a), (b), (c)(3)	Demonstrate that unit meets the seismic impact zones location restriction	
257.64(a), (b), (c), (d)(3)	Demonstrate that unit meets the unstable location restriction	
257.80	2018 Annual Fugitive Dust Control Report	
257.95(g)	Notification of Appendix IV Constituent Exceeding Groundwater Protection Standard	NA, unit remains in detection monitoring
257.96(d)	Completed Assessment of Corrective Measures (If Necessary)	NA, unit remains in detection monitoring
257.83(b)	2019 Annual Inspection	
257.80	2019 Annual Fugitive Dust Control Report	

ATTACHMENT G

2020

PART 115 RULES CHECKLIST
COAL ASH LANDFILL AND COAL ASH IMPOUNDMENTS
HYDROGEOLOGICAL MONITORING PLAN

Facility Name: Monroe Power Plant Bottom Ash Impoundment Date: June 2020
 _____Initials

Report Name: MONPP BAI HMP Report Date June 2020

ITEM		Y/N/NA
1.	<u>Design and siting</u> ensure groundwater will not exceed: R306(1)	NA
	MCLs in 40 CFR Part 257 and Appendix I. (Note: if the design and siting ensure GW will not exceed MCLs identified in appendix I, they will likely ensure that Michigan's cleanup criteria are not exceeded)	NA
	Existing concentrations, where these already exceed 40 CFR Part 257 and Appendix I, unless groundwater has greater than 10,000 mg/L TDS.	NA
2.	Design and siting ensure that requirements of Part 31 and its rules will be met. R306(2)	NA
3.	Hydrogeologic monitoring plan for the coal ash landfill or coal ash impoundment includes the following components:	Y
	A monitoring well system which complies with R906. R905(1)a	Y, Attachment A
	Leachate and SCS monitoring programs as specified in R432, if required. R905(1)b	NA
	Surface water monitoring program for surface waters that may receive runoff from the "active work area" (see R101(g)). R905(1)c	NA
4.	Contains the following specific information: R905(2)	Y
	All GW sampling locations. R905(2)a	Y, Attachment B Table 2-1
	Sampling constituents/parameters and frequency. R905(2)b	Y, Attachment B, Section 2, Table 2-2 and 2-3
	Sampling and analysis procedures for each parameter including: R905(2)c	Y, Attachment B
	Sample collection.	Y, Attachment B Section 2.4
	Sample preservation and shipment.	Y, Attachment B

ITEM		Y/N/NA
		Table 2-6 and Section 3.5
	Analytical procedures, including detection limits.	Y, Attachment B Table 2-2 and 2-3
	Chain of custody control.	Y, Attachment B Section 3.5
	Laboratory and field quality assurance and quality control procedures.	Y, Attachment B Sections 3.1 and 3.2
	Procedures for prevention of cross contamination in wells during well installation, purging and sampling.	Y, Attachment B Section 2.5
	Statistical procedures for data evaluation in compliance with R908.	Y, Attachment C
5.	Sufficient number of wells, installed at appropriate locations and depths, to yield groundwater samples from the uppermost aquifer that represent the quality of: R906(1)	Y, Attachment A
	Background water quality not affected by leakage from a unit. R906(1)a	Y, Attachment A Section 3.0
	Meets conditions for use of wells other than true upgradient. R906(1)(a)i or ii	Y, Attachment A Section 3.0
	Downgradient groundwater and ensures detection of groundwater contamination in the uppermost aquifer, and other groundwater specified by the Director. R906(1)b	Y, Attachment A Section 3.0
	Meets conditions for downgradient monitor well installation at locations other than the solid waste boundary.	NA
	Wells installed at the closest practicable distance from the solid waste boundary.	Y, Attachment A Figure 3
6.	Meets conditions for a multi-unit groundwater monitoring system instead of separate monitoring systems for each landfill unit when the facility has several discrete units. R906(2)	NA
	Monitoring wells not more than 150 meters from the solid waste boundary of each unit, located on land owned by the owner of the unit	NA

ITEM		Y/N/NA
	R906(2)a	
	Sufficient number of wells, installed at appropriate locations and depths, to yield groundwater samples from the uppermost aquifer. R906(2)b	NA
	Is as protective of human health and environment as individual monitoring systems for each unit, based on the following: R906(2)b	NA
	Number, spacing and orientation of the units.	NA
	Hydrogeologic setting.	NA
	Site history.	NA
	Engineering design of the units.	NA
	Type of waste accepted at the units.	NA
7.	Monitoring wells cased in a manner that maintains the integrity of the well borehole. R 906(3)	Y, Attachment A Appendix A
8.	Well casings screened or perforated and packed with gravel or sand, where necessary, to enable the collection of groundwater samples. R906(3)	Y, Attachment A Appendix A
9.	Annular space in each monitoring well sealed to prevent contamination of the samples and groundwater. R906(3)	Y, Attachment A Appendix A
10.	Notified the Director that the design, installation, development, and decommission of any monitoring wells, piezometers, and other measurement, sampling, and analytical devices documentation have been placed in the operating record. R906(4)	Y, Attachment B Section 1.2
11.	All monitoring wells, piezometers, and other measurement, sampling, and analytical devices designed, operated and maintained to perform to design specifications throughout the life of the monitoring program. R906(5)	Y, Attachment A
12.	Monitoring wells designed to minimize the time necessary to recharge well, given hydraulic conductivity of the aquifer. R906(6)	Y, Attachment A
13.	Number, spacing, and depths of monitoring systems in compliance with the following conditions: R906(7)	Y, Attachment A Section 2.2
	Site-specific technical information that includes thorough characterization of both of the following: R906(7)(a)	Y, Attachment A Section 2.2
	The uppermost aquifer, including all of the following information: R906(7)(a)i	Y, Attachment A Section 2.2
	Aquifer thickness.	Y,

ITEM		Y/N/NA
		Attachment A Section 2.2
	Groundwater flow rate.	Y, Attachment A Section 2.2
	Groundwater flow direction including seasonal and temporal fluctuations in groundwater flow.	Y, Attachment A Section 2.2
	Saturated and unsaturated geologic units and fill materials overlying the uppermost aquifer, materials comprising the uppermost aquifer, and materials comprising the confining unit defining the lower boundary of the uppermost aquifer, including all of the following: R906(7)(a)ii	Y, Attachment A Section 2.2
	Thickness.	Y, Attachment A Section 2.2
	Stratigraphy.	Y, Attachment A Section 2.2
	Lithology.	Y, Attachment A Section 2.2
	Hydraulic conductivities.	Y, Attachment A Section 2.2.2
	Porosities.	N
	Effective Porosities.	Y, Attachment A Section 2.2.2
	Certified by a Geologist. R906(7)b	Y, Attachment A Section 5.0
	Approved by the Director. Within 14 days of this approval, the owner or operator shall notify the Director that the certification and approval have been placed in the operating record. R906(7)c	N
14.	All wells clearly labeled, properly vented, capped, and locked when not in use. R906(8)	Y, Attachment B Section 1.2.2
15.	All wells visible throughout the year. R906(8)	Y, Attachment B

ITEM		Y/N/NA
		Section 1.2.2
16.	Owner or operator to notify the Director or designee prior to undertaking well abandonment, plugging, replacement, or repair. R906(9)	Y, Attachment B Section 1.2
17.	Groundwater monitoring program includes sampling and analysis procedures designed to ensure monitoring results that provide an accurate representation of groundwater quality at the background and downgradient wells installed in compliance with R906. R907(1)	Y, Attachment B
18.	Owner or operator has notified Director that sampling and analysis program documentation has been placed in the operating record. R907(1)	Y, Cover letter
19.	The sampling and analysis program shall include all of the following:	Y, Attachment B
	Sample collection. R907(1)a	Y, Attachment B Section 2.4
	Sample preservation and shipment. R907(1)b	Y, Attachment B Table 2-6 and Section 3.5
	Analytical procedures. R907(1)c	Y, Attachment B Table 2-2 and 2-3
	Chain of custody control. R907(1)d	Y, Attachment B Section 3.5
	Quality assurance and quality control. R907(1)e	Y, Attachment B Section 3
20.	Sampling and analysis programs include sampling and analytical methods appropriate for groundwater sampling and accurately measure hazardous constituents and other monitoring parameters in groundwater samples. R907(2)	Y, Attachment B
21.	Groundwater samples shall not be field filtered. 324.11511a(3)e	Y, Attachment B Section 2.4
22.	Sampling procedures and frequency are protective of human health and the environment. R907(3)	Y, Cover letter
23.	Analytical methods and practical quantitation limits for groundwater monitoring are approved by the Director. R907(4)	N
24.	Groundwater elevations measured immediately prior to purging each time	Y,

ITEM		Y/N/NA
	groundwater is sampled. R907(5)	Attachment B Section 2.3
25.	Owner or operator to determine rate and direction of groundwater flow each time groundwater is sampled. R907(5)	Y, Attachment B Section 2.3
26.	Facility to measure groundwater elevations within a period of time short enough to avoid temporal variations in groundwater flow which could preclude accurate determination of groundwater flow rate and direction. R907(5)	Y, Attachment B Section 2.3
27.	Groundwater elevations measured by methods giving precision to 1/8 inch or 0.01 foot, measured from the top of the well reference point using a determined USGS datum point. R907(6)	Y, Attachment B Section 2.3
28.	Facility has established background water quality in a hydraulically upgradient or background well or wells for each of the monitoring parameters or constituents required in groundwater monitoring program. (Background groundwater quality may be established at wells not located hydraulically upgradient from the unit if the well meets R906(1)(a)). R907(7)	Y, Attachment C Section 3.1
29.	Number of samples to establish groundwater quality data consistent with statistical procedures determined per R908. The sampling procedures are those specified pursuant to the provisions of the following: R907(8)	Y, Attachment C
	For detection monitoring R440	Y, Attachment C Section 3.1
	For assessment monitoring R441	Y, Attachment C Section 4.0
	For remedial action R444	Y, Attachment C Section 4.0
30.	All samples obtained shall be representative of the site's groundwater quality. R907(9)	Y, Attachment B Section 2.4
	Each well will be purged until dry or until not less than 3 times the amount of water in the well casing has been removed.	Y, Attachment B Section 2.4.1
	Monitoring wells will be sampled immediately after purging where recovery rates allow.	Y, Attachment B Section 2.4.3
	If well pumped dry during purging, samples will be taken within 24 hours.	Y, Attachment B Section 2.4.3

ITEM		Y/N/NA
31.	If nondedicated pumps or mobile sampling equipment is used, facility will use the following procedures to minimize the potential for cross-contamination: R907(10)	Y, Attachment B
	Sample wells from upgradient to downgradient, except areas of known contamination will be sampled from least contaminated to most contaminated well. R907(10)a	NA
	Each piece of equipment will be thoroughly cleaned and rinsed with distilled water before use in each well. R907(10)b	Y, Attachment B Section 2.5
	Other decontamination procedures approved by the Department. R907(10)c	NA
32	The owner and operator shall submit all monitoring results to the director or designee not later than 30 days after the end of the calendar quarter. R907(11)	Y, Attachment B Section 4
33.	The owner and operator of a landfill will sample and analyze groundwater by methods specified in "Standard Methods for the Examination of Water and Wastewater.... Or other methods approved by the director or his or her designee. (we would accept SW-846 methods). 324.11511a(4)	Y, Attachment B Tables 2-2 and 2-3
34.	Detection monitoring parameter list includes: 324.11511a(3)(c)	Y, Attachment B Table 2-2
	Boron 324.11511a(3)(c)i	Y, Attachment B Table 2-2
	Calcium 324.11511a(3)(c)ii	Y, Attachment B Table 2-2
	Chloride 324.11511a(3)(c)iii	Y, Attachment B Table 2-2
	Fluoride 324.11511a(3)(c)iv	Y, Attachment B Table 2-2
	Iron 324.11511a(3)(c)v	Y, Attachment B Table 2-2
	pH 324.11511a(3)(c)vi	Y, Attachment B Table 2-2

ITEM		Y/N/NA
	Sulfate 324.11511a(3)(c)vii	Y, Attachment B Table 2-2
	Total Dissolved Solids 324.11511a(3)(c)viii	Y, Attachment B Table 2-2
35.	Contains a statistics plan or statistical procedures that meets the requirements of Rule 908. (Use Part 115 Rules Checklist – Landfill Groundwater Monitoring Statistical Procedures). R908	Y, Attachment C
36.	Detection monitoring is conducted quarterly during the active life and semiannually during the post-closure period, except as provided for in R440(5). R440(1)(a)	Y, Cover letter
37.	Meets conditions for deletion of R452 to R454 parameters.	NA
	Parameters and breakdown products are not in leachate for not less than 2 consecutive and historic samplings. R440(4)	NA
38.	Meets conditions for alternative monitoring frequency for R450-451 parameters (at least semiannually) or for R452-454 parameters (at least annually) based on following factors: R440(5)	Y, Cover letter
	Lithology of aquifer and unsaturated zone. R440(5)a	NA
	Hydraulic conductivity of aquifer and unsaturated zone. R440(5)b	Y, Cover letter and Attachment B Section 3.1
	Groundwater flow rates. R440(5)c	Y, Cover letter and Attachment B Sections 2.2 and 3.1
	Minimum distance from the waste and the closest downgradient well screen, or presence of SCS. R440(5)d	NA
	Resource value of aquifer. R440(5)e	NA
39.	First sampling event includes 4 independent samples from each well. Subsequent events include minimum of 1 sample from each well. R440(7)	N, Attachment B Section 4
40.	In case of statistically significant increase over background:	Y, Attachment C
	Place notice in operating record within 14 days. R440(8)a	Y, Attachment C Section 4.0
	Prepare assessment monitoring plan per R441 and a response action	Y,

ITEM		Y/N/NA
	plan within 45 days. R440(8)b	Attachment C Section 4.0
41.	If statistically significant increase over background due to other source or is due to an error, has owner:	Y, Attachment C Section 4.0
	Documented a demonstration of this and placed notice in operating record within 30 days. R440(9)	Y, Attachment C Section 4.0
	If a successful demonstration is made,	Y, Attachment C Section 4.0
	Continue detection monitoring. R440(9)(a)	Y, Attachment C Section 4.0
	Determined if the unit remains monitorable R440(9)(b)	Y, Attachment C Section 4.0
	If a successful demonstration is not made, then 15 days after notification by the director, prepare an assessment monitoring plan and a response action plan. R440(10)	Y, Attachment C Section 4.0
42.	Text in the HMP indicates an assessment monitoring program will be developed if required under R441 <u>or</u> the Assessment Monitoring Program is included with the HMP. (use the assessment monitoring program checklist if the program is provided) <u>or</u> the Assessment Monitoring program has already been approved and is referenced in the HMP. R441 <u>Or</u> a schedule, approved by the department, that leads to compliance by no later than December 28, 2020 has been provided. 324.11511a(3)(f)ii	Y, Attachment C Section 4
43.	Text in the HMP indicates a response action plan will be developed if required under R442 <u>or</u> the Response Action Plan is included. (use the response action plan checklist if a plan is provided) <u>or</u> the Response Action Plan has already been approved and is referenced in the HMP. R442 <u>Or</u> a schedule, approved by the department, that leads to compliance by no later than December 28, 2020 has been provided. 324.11511a(3)(f)ii	Y, Attachment C Section 4
44.	Text in the HMP indicates that corrective measures will be assessed if required under R443 <u>or</u> the assessment of corrective measures is included in the HMP <u>or</u> the assessment of corrective measures has already been approved and is referenced in the HMP. R443 <u>Or</u> a schedule, approved by the department, that leads to compliance by no later than December 28, 2020 has been provided. 324.11511a(3)(f)ii	Y, Attachment C Section 4
45.	Text in the HMP indicates that a remedy will be selected, if required, in compliance with R444 <u>or</u> the remedy selection and remedial action plan is included with the HMP <u>or</u> the remedy selection and remedial action plan has	Y, Attachment C Section 4

ITEM	Y/N/NA
<p>already been approved and is referenced in the HMP. R444</p> <p><u>Or</u> a schedule, approved by the department, that leads to compliance by no later than December 28, 2020 has been provided. 324.11511a(3)(f)ii</p>	
<p>46. Text in the HMP indicates that a remedial action plan will be implemented, if required, in compliance with R445 <u>or</u> the remedial action plan implementation details are included with the HMP <u>or</u> the remedial action plan has already been implemented and is referenced in the HMP. R445</p> <p><u>Or</u> a schedule, approved by the department, that leads to compliance by no later than December 28, 2020 has been provided. 324.11511a(3)(f)ii</p>	Y, Attachment C Section 4
COMMENTS:	

June 30, 2020

Mr. Chris Scieszka
Environmental Management & Safety
DTE Electric Company
One Energy Plaza, 410 G.O.
Detroit, Michigan 48226

Subject: Hydrogeological Monitoring Plan for the DTE Electric Company Monroe Power Plant Bottom Ash Impoundment, 3500 East Front Street, Monroe, Michigan

Dear Mr. Scieszka:

On December 28, 2018, the State of Michigan enacted Public Act No. 640 of 2018 to amend Part 115 of the Natural Resources and Environmental Protection Act, PA 451 of 1994, as amended (Part 115). The December 2018 amendments to Part 115 were developed to provide the State of Michigan oversight of coal combustion residual (CCR) impoundments and landfills and to better align existing state solid waste management rules and statutes with the United States Environmental Protection Agency (USEPA) CCR Resource Conservation and Recovery Act (RCRA) Rule, as amended¹ (40 CFR 257 Subpart D) ("CCR Rule"). On August 5, 2016, the USEPA published the CCR Rule companion *Extension of Compliance Deadlines for Certain Inactive Surface Impoundments* to establish the compliance deadlines for CCR units that were inactive prior to April 17, 2018, which applies to the DTE Electric Company (DTE Electric) Monroe Power Plant (MONPP) Bottom Ash Impoundment (BAI) Inactive CCR unit. This alignment between the state and federal programs would ensure compliance with the federal CCR standards through a state-approved permitting program that would be deemed to be "equivalent to" or "as protective as" through an administrative application that would be reviewed and authorized by USEPA.

The DTE Electric MONPP is located in Section 16, Township 7 South, Range 9 East, at 3500 East Front Street, Monroe in Monroe County, Michigan (Figure 1). The MONPP BAI was operated from the mid-1970s through 2015 and is located within the southern portion of the MONPP parcel at latitude 41° 52' 30" North and longitude 83° 20' 70" West. DTE Electric is currently planning to close the MONPP BAI by removing all CCR material from the basin. The design for the closure by removal is ongoing.

Groundwater monitoring activities have been conducted at the MONPP BAI entirely in accordance with the CCR Rule since January 2017 when background monitoring began and has commenced and continued detection monitoring in 2019 through the present.

DTE Electric is in the process of establishing a Part 115 operating license for the MONPP BAI in order to manage closure of the site under Part 115. Revisions to Part 115 through PA 640, in particular Section 11512(a)(1), require an approved Hydrogeologic Monitoring Plan (HMP) that complies with Rules 299.4440 to 299.4445, if applicable, and Rules 299.4905 to 299.4908 of the Part 115 Rules. As part of the license requirements, on behalf of DTE Electric, TRC has prepared this HMP in place of the CCR Rule monitoring program documents to provide a means to comply with applicable monitoring

¹ United States Environmental Protection Agency (USEPA) final rule for the regulation and management of Coal Combustion Residuals (CCR) under the Resource Conservation and Recovery Act (RCRA) published April 17, 2015, as amended.

requirements described in Part 115, as amended, and the CCR Rule. It should be noted that the Michigan statute does not act in lieu of the federal standards until such a time as the USEPA authorizes Michigan's permit program in lieu of the Federal rule.

The components of this HMP have largely been developed in compliance with the CCR Rule in order to document the procedures for the collection and analysis of groundwater data used to monitor groundwater at the MONPP BAI. These existing documents will collectively serve as the updated HMP presented in this letter report with the additional modifications described herein that are necessary to comply with Part 115, as amended.

Groundwater Monitoring System

A groundwater monitoring system has been established under the CCR Rule that also meets the requirements of Part 115 Rule 299.4905(1)(a) that states that an HMP shall include a groundwater monitoring well system that complies with the provisions of Rule 299.4906. The groundwater monitoring system along with a detailed hydrogeological site characterization, geologic cross sections and well construction logs, are presented in the Monitoring Well Installation Report (WIR) prepared by AECOM in October 2017, updated in April 2020, and is included in Attachment A. The WIR also describes the methods and procedures associated with the installation of the monitoring wells, which will also be used for the construction of any future monitoring wells. Michigan Department of Environment, Great Lakes, and Energy (EGLE) approval will be requested prior to any future modifications to the monitoring well network, including installation of additional monitoring wells, replacements of existing wells, or decommissioning/removal of any wells from the monitoring program. A map of the monitoring system is provided in Figure 2.

Groundwater Sampling and Analytical Program

The Groundwater Monitoring and Quality Assurance Project Plan (QAPP) prepared by TRC in April 2020 for the MONPP BAI presents the updated groundwater monitoring program that will be implemented as part of this HMP and is included in Attachment B. The QAPP addresses collection and handling of samples at the site and laboratory analysis in conformance with Rule 299.4907 of the Part 115 Rules.

Groundwater monitoring will be conducted semiannually for the parameters listed in Section 11511a(3)(c) – Detection Monitoring Constituents. This frequency is consistent with the monitoring program established per the CCR Rule and is appropriate considering the hydrogeology of the site as described in Section 2.0 of the WIR in Attachment A and Section 1.2 of the Groundwater Statistical Evaluation Plan (AECOM 2019, updated April 2020) in Attachment C.

Data Evaluation and Reporting

Groundwater data will be evaluated for each constituent included in the groundwater monitoring program using statistical methods that comply with Rule 299.4908 and will be conducted in accordance with the "Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities – Unified Guidance" USEPA, 2009 (Unified Guidance). The Groundwater Statistical Evaluation Plan in Attachment C

describes the statistical data evaluation procedures.

In order to comply with the Part 115 amendments, background will be established for the Section 11511a(3) constituents not already included in the CCR Rule Appendix III (i.e., iron) as detailed in Section 4 of the QAPP (Attachment B) using the statistical methods in Attachment C. Background groundwater monitoring was conducted at the MONPP BAI from January 2017 through February 2019 in accordance with the 2017 Groundwater Monitoring Work Plan, pursuant to the CCR Rule, with the results documented in the Annual Groundwater Monitoring Report prepared by TRC in July 2019 for the MONPP BAI (2019 Annual Report). Data collected to-date and statistical limits established as part of the CCR Rule implementation will be used to implement this HMP.

Routine statistical evaluation will entail the following process:

1. Analytical results for routine sampling events will be compared to the statistical limits established as discussed above in order to determine if a statistically significant increase (SSI) is observed. The statistical comparisons will be performed within 30 days of the end of the calendar quarter in which sampling and analysis was conducted, as specified in Rule 908(6).
2. In the event that a SSI has been determined to occur, DTE Electric will place a notice in the operating record and notify the EGLE in accordance with Rule 299.4440(8)(a).
3. As described in the Groundwater Statistical Evaluation Plan (Attachment C), verification sampling will be performed in order to achieve the site wide false positive rates (SWFPR) recommended in the Unified Guidance. If there is an exceedance of prediction limit for one or more of the parameters, the well(s) of concern will be resampled within 30 days of the completion of the initial statistical analysis. Only constituents that initially exceed their statistical limit (i.e., have no previously recorded SSIs) will be analyzed for verification purposes. If the verification sample remains statistically significant, then statistical significance will be considered, and the 14-day notification will be made. If the verification sample is not statistically significant, then no SSI will be recorded for the monitoring event and the 14-day notice will not be necessary.
4. If a SSI is determined, a 30-day demonstration period will be initiated upon determining the increase to identify if the apparent increase was attributable to error in sampling, analysis, statistical evaluation, impact from an off-site source, or natural variability in groundwater quality in accordance with Rule 299.4440(9). If it is determined that the apparent increase resulted from any of the aforementioned sources, the report will be submitted to the EGLE and routine monitoring will be resumed.
5. If it is determined that the detected increase was not the result of error, natural variability or an off-site source, (e.g. if the results of the second analysis confirm the initial results), an assessment monitoring plan in compliance with Rule 299.4441 and a response action plan in compliance with Rule 299.4442 will be prepared and submitted within 45 days of the SSI determination.

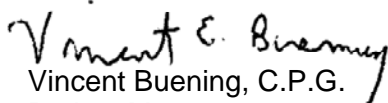
Groundwater sampling will be conducted on a semiannual frequency during the spring and fall. Analytical results and data reports as defined below will be submitted to the director no later than 30 days after the end of the calendar quarter in which the samples were obtained.

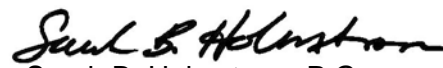
Data reports will include the following:

- Statement of adherence to the approved HMP;
- Description of the sampling event;
- Groundwater contour maps with summary of groundwater flow direction and rates;
- Tables of analytical results from the groundwater monitoring program that summarize the statistical exceedances (if any);
- Discussion of statistical data evaluation;
- Alternate source demonstration(s) (if applicable);
- Laboratory analytical results and chain of custody information;
- Field forms; and
- Signature of certified professional.

Sincerely,

TRC


Vincent Buening, C.P.G.
Project Manager


Sarah B. Holmstrom, P.G.
Project Hydrogeologist

Attachments

Figure 1 – Site Location

Figure 2 – Site Plan with Monitoring Network

Attachment A – Monitoring Well Installation Report (WIR) – AECOM, October 2017, revised June 2020

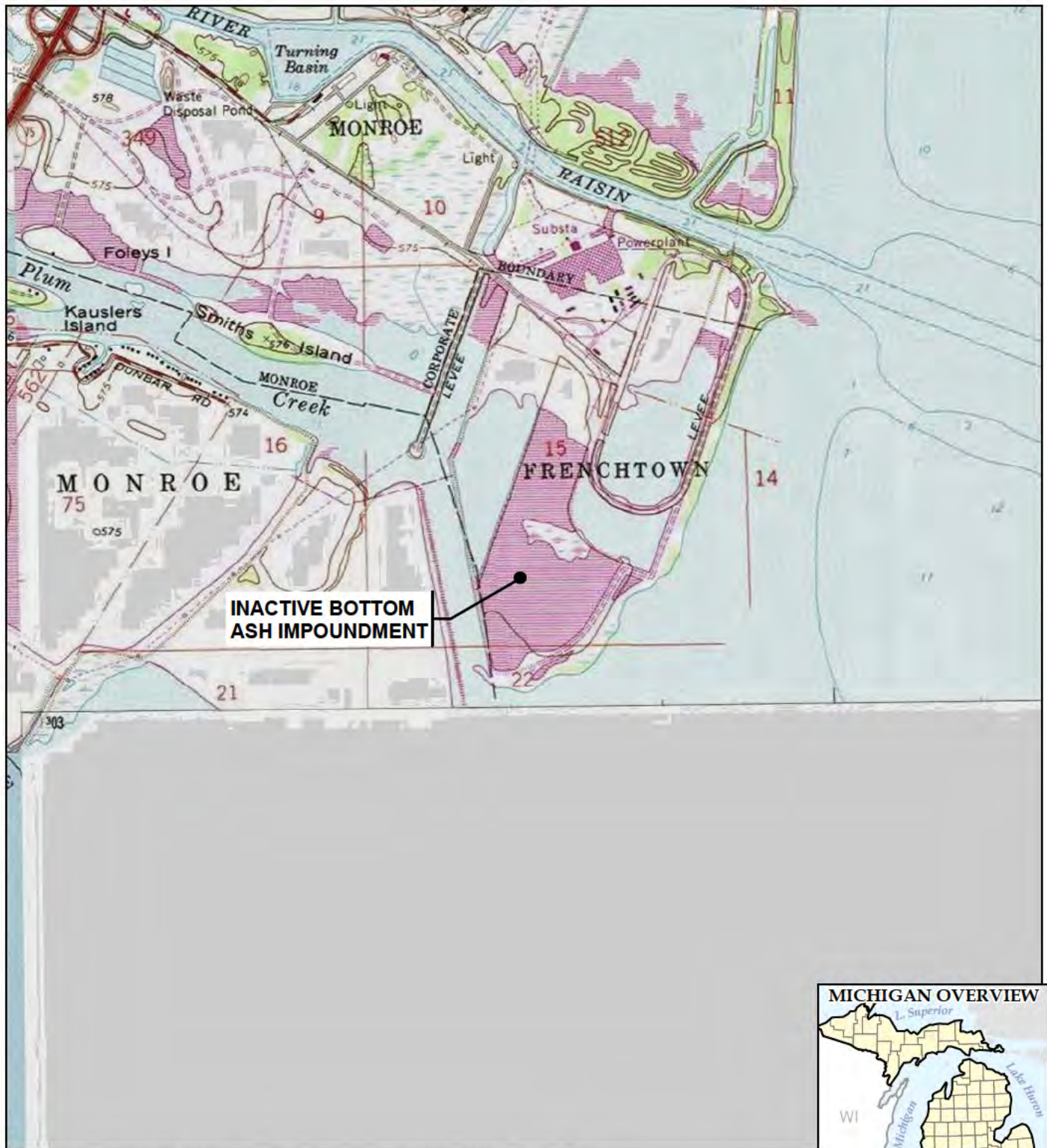
Attachment B – Groundwater Monitoring and Quality Assurance Project Plan – TRC, April 2020

Attachment C – Groundwater Statistical Evaluation Plan – AECOM, April 2019, revised April 2020

cc: Robert Lee, DTE Electric Company

Mr. Chris Scieszka
DTE Electric Company
June 30, 2020

Figures



BASE MAP FROM USGS 7.5 MINUTE TOPOGRAPHIC QUADRANGLE SERIES.



1540 Eisenhower Place
Ann Arbor, MI 48108-3284
Phone: 734.971.7080

TRC - GIS

PROJECT: **DTE ELECTRIC COMPANY
MONROE POWER PLANT BOTTOM ASH IMPOUNDMENT
3500 EAST FRONT STREET
MONROE, MI 48161**



TITLE: **SITE LOCATION MAP**



DRAWN BY:	R. SUEMNICHT
CHECKED BY:	S. HOLMSTROM
APPROVED BY:	V. BUENING
DATE:	SEPTEMBER 2019
PROJ. NO.:	320511.0006
FILE:	320511-001slm.mxd

FIGURE 1



LEGEND

-  CCR PROGRAM MONITORING WELL
 INVESTIGATION MONITORING WELL (STATIC WATER LEVELS ONLY)
 UNIT SEPARATION BERM

-  APPROXIMATE BOUNDARY OF INACTIVE BOTTOM ASH IMPOUNDMENT
 APPROXIMATE PLANT BOUNDARY

NOTES

1. BASE MAP IMAGERY FROM GOOGLE EARTH PRO & PARTNERS, APRIL 2018.



PROJECT:

**DTE ELECTRIC COMPANY
MONROE POWER PLANT
3500 EAST FRONT STREET
MONROE, MI 48161**

TITLE:

INACTIVE BOTTOM ASH IMPOUNDMENT WELL LOCATION MAP

DRAWN BY:

S MAJOR

CHECKED BY:

Kelly Cratsenburg

APPROVED BY:

Vince Buening

DATE:

APRIL 2020

PROJ. NO.:

370029.0006 0000

FILE:

370029.0006-003 mxd

FIGURE 2