



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**

REGION III
2443 WARRENVILLE ROAD, SUITE 210
LISLE, ILLINOIS 60532-4352

August 07, 2020

Mr. Peter Dietrich
Senior VP and Chief Nuclear Officer
DTE Electric Company
Fermi 2 - 260 TAC
6400 N. Dixie Hwy
Newport, MI 48166

SUBJECT: FERMI POWER PLANT, UNIT 2 – TRIENNIAL FIRE PROTECTION
INSPECTION REPORT 05000341/2020011

Dear Mr. Dietrich:

On July 23, 2020, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at Fermi Power Plant, Unit 2 and discussed the results of this inspection with you and other members of your staff. The results of this inspection are documented in the enclosed report.

No findings or violations of more than minor significance were identified during this inspection.

This letter, its enclosure, and your response (if any) will be made available for public inspection and copying at <http://www.nrc.gov/reading-rm/adams.html> and at the NRC Public Document Room in accordance with Title 10 of the *Code of Federal Regulations* 2.390, "Public Inspections, Exemptions, Requests for Withholding."

Sincerely,

/RA/

Richard A. Skokowski, Chief
Engineering Branch 3
Division of Reactor Safety

Docket No. 05000341
License No. NPF-43

Enclosure:
As stated

cc w/ encl: Distribution via LISTSERV®

Letter to Peter Dietrich from Richard A. Skokowski dated August 07, 2020.

SUBJECT: FERMIL POWER PLANT, UNIT 2 – TRIENNIAL FIRE PROTECTION
INSPECTION REPORT 05000341/2020011

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**U.S. NUCLEAR REGULATORY COMMISSION
Inspection Report**

Docket Number: 05000341

License Number: NPF-43

Report Number: 05000341/2020011

Enterprise Identifier: I-2020-011-0040

Licensee: DTE Electric Company

Facility: Fermi Power Plant, Unit 2

Location: Newport, MI

Inspection Dates: June 29, 2020 to July 23, 2020

Inspectors: J. Benjamin, Senior Reactor Inspector
I. Hafeez, Reactor Inspector
A. Shaikh, Senior Reactor Inspector

Approved By: Richard A. Skokowski, Chief
Engineering Branch 3
Division of Reactor Safety

Enclosure

SUMMARY

The U.S. Nuclear Regulatory Commission (NRC) continued monitoring the licensee's performance by conducting a triennial fire protection inspection at Fermi Power Plant, Unit 2, in accordance with the Reactor Oversight Process. The Reactor Oversight Process is the NRC's program for overseeing the safe operation of commercial nuclear power reactors. Refer to <https://www.nrc.gov/reactors/operating/oversight.html> for more information.

List of Findings and Violations

No findings or violations of more than minor significance were identified.

Additional Tracking Items

None.

INSPECTION SCOPES

Inspections were conducted using the appropriate portions of the inspection procedures (IPs) in effect at the beginning of the inspection unless otherwise noted. Currently approved IPs with their attached revision histories are located on the public website at <http://www.nrc.gov/reading-rm/doc-collections/insp-manual/inspection-procedure/index.html>. Samples were declared complete when the IP requirements most appropriate to the inspection activity were met consistent with Inspection Manual Chapter (IMC) 2515, "Light-Water Reactor Inspection Program - Operations Phase." The inspectors reviewed selected procedures and records, observed activities, and interviewed personnel to assess licensee performance and compliance with Commission rules and regulations, license conditions, site procedures, and standards.

Starting on March 20, 2020, in response to the National Emergency declared by the President of the United States on the public health risks of the coronavirus (COVID-19), regional inspectors were directed to begin telework. The inspection documented below was determined that the objectives and requirements stated in the IP could be performed remotely.

REACTOR SAFETY

71111.21N.05 - Fire Protection Team Inspection (FPTI)

Structures, Systems and Components Credited for Fire Prevention, Detection, Suppression, or Post-Fire Safe Shutdown (SSD) Review (IP Section 03.01) (4 Samples)

The inspectors verified that components and/or systems will function as required to support the credited functions stated for each sample.

- (1)
 - High Pressure Core Injection (HPCI) Pumps
- (2)
 - Electric Fire Pump
- (3)
 - Alternate Diesel Fire Pump
- (4)
 - Halon Suppression System for Cable Spreading Room and Relay Room

Fire Protection Program Administrative Controls (IP Section 03.02) (1 Sample)

The inspectors verified that the selected control or process is implemented in accordance with the licensee's current licensing basis that the licensee's Fire Protection Program (FPP) contains adequate procedures to implement the selected administrative control.

- (1)
 - Combustible Control Program

Fire Protection Program Changes/Modifications (IP Section 03.03) (2 Samples)

For the selected change/modifications, the inspectors verified the following:

- a. Changes to the approved FPP do not constitute an adverse effect on the ability to safely shutdown.
- b. The adequacy of the design modification, if applicable.
- c. Assumptions and performance capability stated in the safe shutdown analysis (SSA) have not been degraded through changes or modifications.

- d. The FPP documents, such as the Updated Final Safety Analysis Report, fire protection report, fire hazards analysis (FHA) or SSA were updated consistent with the FPP or design change.
- e. Post-fire SSD operating procedures, such as abnormal operating procedures, affected by the modification were updated.

- (1)
 - Lack of Fire-Stopping in Diesel Fire Pump Room
- (2)
 - Evaluation of Temporary Removal of Penetration Seal I-8822

INSPECTION RESULTS

No findings were identified.

EXIT MEETINGS AND DEBRIEFS

The inspectors verified no proprietary information was retained or documented in this report.

- On July 23, 2020, the inspectors presented the triennial fire protection inspection results to Mr. P. Dietrich, Senior VP and Chief Nuclear Officer and other members of the licensee staff.

DOCUMENTS REVIEWED

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
71111.21N.05	Calculations	DC 5713 Volume I	Hydraulic Evaluation of the Upgraded Fire Distribution Loop	F
		EDP-31880	Base Design Calculation DC-5702 Vol.1	0
	Corrective Action Documents	10-26551	CR Computer Room Above Main Halon Discharged to CR Computer Room	07/30/2010
		12-23394	Fire Protection Issue	04/17/2012
		17-25804	55 Gallon Oil Drum Found Stored on Pallet	07/05/2017
		18-22470	Used Oil Tanks Found in New Position and Top Cap Unsecured	03/23/2018
		18-25017	DC-5702 VOL I "Fire Loading Calculation" Does Not Include PVC Components for Condenser Water Box Down System	06/28/2018
		20-23610	Tools and Power Cord in Transient Combustible Exclusion Area	04/01/2020
		20-23880	Halon Auto Function Failed to Initiate	04/05/2020
	Corrective Action Documents Resulting from Inspection	20-28178	2020 NRC Triennial Fire Protection Inspection - 28.503.05 Damper Location Needs to be Revised	
	Drawings	1121-0300-LD-8	Fire Detection Panel P82-P430 Logic Diagram for Auxiliary Building	2
		1121-0300-PA	Fire Detection Panel P82-P430 Logic Diagram for Auxiliary Building	06/08/1982
		51721-3044-004	Instrument Loop Diagram Halon Fire Protection System Relay Room Auxiliary Building Zone 8	05/13/2013
		51721-3044-001	Instrument Loop Diagram Halon Fire Protection System Relay Room Auxiliary Building Zone 8	A
		61721-3044-018	Instrument Loop Diagram CO2 Fire Protection System MCC/SWGR RM 3RD FLR Zone 14	09/30/2005
		6A721-2401	Fire Protection Evaluation Reactor Building Subbasement Plan EI 540'-0"	L
		61721-2221-06	Schematic Diagram HPCI SYS-Test Return Line to	Z

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
			Condensate Storage Valves F008 & F011	
		6M721-2035	High Pressure Coolant Injection System	BO
		6M721-2043	High Pressure Coolant Injection Sys Barometric Cndr	AJ
		6M721-4548	Fire Protection Diagrams CO2, Halon & FM - 200 Systems	S
		6M721-5708-1	High Pressure Coolant Injection System Functional Operating Sketch	AR
		6M721-5721-1	Condensate Storage and Transfer System Functional Operating Sketch	AE
		6M721-5733-3	CO2, Halon & FM-200 Fire Detection Sys Functional Operating Sketch	N
	Engineering Evaluations	DC-4921 Vol 1	Appendix R Calculations	1
		FPEE 13-0001	Lack of Fire Stopping in Diesel Fire Pump Room	02/08/2013
		FPEE 18-0001	Evaluation of Temporary Removal of Penetration Seal I-8822	01/18/2018
		FPEE 19-0002	Evaluation of TM-19-0014 Rev. 0 Temporary Diesel Fire Pump	09/17/2019
		FPEE 19-0003	TR LCO 3.0.3 Evaluation for Non-Functional Diesel Fire Pump TRM Section TR 3.12.2	09/11/2019
		FPEE 19-0004	TR LCO 3.0.3 Evaluation for Continued Operation with One Fire Pump TRM Section 3.12.2	11/28/2019
		FPEE 19-0018	Winterization of Temporary Alternate Diesel Fire Pump	11/26/2019
		FPEE 20-0006	Evaluation of CARD 10-26551, Procedure Change for Halon Test	0
	Fire Plans	FP-AB-2-8	Relay Room, Zone 8, El. 613'6"	7
		FP-RB-B-4d	Reactor Building Basement Southeast Corner Room Zone 4, El. 562'0"	4
		FP-RB-B-5c	Reactor Building Basement Corridors Zone 5, El. 562'0" and El. 564'0"	4
		FP-RB-SB-4a	High Pressure Coolant Injection Pump and Turbine Room, Zone 4	5
	Miscellaneous	ANSI/ASTM D 975 - 78	Standard Specification for Diesel Fuel Oils	1978
		ASTM D975-07b	Standard Specifications for Diel Fuel Oils	07/15/2007
		Catalog Number	Pyrotronics Switch Model SM-30	04/01/1979

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
		3162		
		Lab Number C5034084	SGS Fermi 2 DFP FO Storage Tank Fuel Oil Sample Results	04/14/2020
		NFPA 12A	Halogenated Fire Extinguishing Agent Systems	2009
		NFPA 72D	Watchman, Fire Alarm and Supervisory Service	1975
		NFPA 12A	Halogenated Fire Extinguishing Agent Systems	1977
		NFPA 72E	Automatic Fire Detectors	1974
		VMB11-21	Chemetron Vendor Manual 1301 Halon Fire Protection Systems	0
	Procedures	20.000.13	Shutdown from Outside the Control Room	43
		20.000.18	Control of the Plant from the Dedicated Shutdown Panel	56
		20.000.18	Control of The Plant From The Dedicated Shutdown Panel	56
		20.000.22	Plant Fires	48
		20.000.22	Plant Fires	48
		23.501.01	Fire Water Suppression System	63
		27.000.09	Time Critical Actions Validation and Verification	5
		28.501.02	Fire Suppression Water System and Spray/Sprinkler Systems Valve Lineup Verification	16
		28.501.13	Sprinkler System Simulated Automatic Actuation Test	24A
		28.501.14	Sprinkler System Integrity Inspection	9
		28.503.01	Halon Valve Lineup Verifications	7
		28.503.04	Halon Fire Suppression System Functional Test Zone 8 - Relay Room	19
		28.505.04	Fire Detection Zone 4 Operability Test RB Bmt and Sbmt SE	11
		28.505.08	Fire Detection Zone 8 Operability Test AB 2nd FI Relay Room - BOP	13
		29.100.01	Emergency Operating Procedure RPV Control	17
		77.000.67	Particulate Contamination in Fuel Oil	14
		ARP 16D27	Fire Alarm	12
		ARP 7D10	Alarm Response Procedure Electric Fire Pump Auto Start	10
		ARP 7D6	Alarm Response Procedure Diesel Fire Pump Auto Start	13
		MES35	Fire Protection Program	11

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
		MMA26	Fermi 2 Maintenance Conduct Manual Troubleshooting	7A
		MOP01	Operations Conduct Manual	40
		ODE-20	Operations Department Expectations (Protected Equipment)	25
		TMTRM	Fermi 2 Technical Requirements Manual	122
	Work Orders	26821051	Perform 28.503.04 Zone 8 Relay Room Halon Fire Suppression Functional Test	08/05/2009
		31553104	28.503.04 Zone 8 Pre-discharge	08/16/2010
		31653104	PMT 28.503.04 Zone 8 Pre-discharge Horns	08/16/2010
		36956069	27.000.09 Time Critical Actions	08/09/2012
		42305928	Perform Fire Suppression Water System Functional Flow Test	12/12/2018
		46491209	Perform Fire Suppression Water System Simulated Auto Actuation Test (Electric Fire Pump)	11/22/2019
		48331571	Perform 28.507.01 Fire Barrier Inspection (Mode 1,2,3)	01/02/2019
		48782869	Perform 28.501.04 Fire Suppression and Sprinkler System Valve Operability Test	04/29/2019
		49336625	Perform 28.503.06 Zone 13 Control Room Halon Fire Suppression Functional Test	05/09/2019
		50274935	Perform 28.501.13 Sprinkler Simulated Auto Test HPCI, RCIC, Torus, Bsmnt	01/24/2020
		50675328	Perform 28.505.04 Zone 4 RBB & RSB-SE Fire Detection Operability & Functional	10/10/2019
		51651909	Perform 28.501.14 Sprinkler System Integrity Verification Test	01/24/2020
		52280814	Perform 28.503.05 Zone 11 Cable Spreading Rm Halon Functional Test	04/12/2020
52295498	Perform 28.503.04 Zone 8 Relay Room Halon Fire Suppression Functional Test	05/28/2020		
53639048	Perform 28.501.04 Fire Suppression and Sprinkler System Valve Operability Test	08/08/2019		