



**UNITED STATES  
NUCLEAR REGULATORY COMMISSION**  
REGION III  
2443 WARRENVILLE RD. SUITE 210  
LISLE, IL 60532-4352

February 23, 2017

Mr. Paul Fessler, Senior VP  
and Chief Nuclear Officer  
DTE Energy Company  
Fermi 2 – 210 NOC  
6400 North Dixie Highway  
Newport, MI 48166

SUBJECT: FERMI POWER PLANT, UNIT 2—NRC TEMPORARY INSTRUCTION 2515/191,  
MITIGATION STRATEGIES, SPENT FUEL POOL INSTRUMENTATION AND  
EMERGENCY PREPAREDNESS INSPECTION REPORT 05000341/2017008

Dear Mr. Fessler:

On January 27, 2017, the U.S. Nuclear Regulatory Commission (NRC) completed a Temporary Instruction (TI) 2515/191, "Inspection of the Implementation of Mitigation Strategies and Spent Fuel Pool Instrumentation Orders and Emergency Preparedness Communication/Staffing/Multi-Unit Dose Assessment Plans" inspection at your Fermi Power Plant, Unit 2. On January 27, 2017 the NRC inspectors discussed the results of this inspection with Mr. K. Polson and other members of your staff. The enclosed report represents the results of this inspection.

The inspection examined activities conducted under your license as they relate to the implementation of mitigation strategies and spent fuel pool instrumentation orders (EA-12-049 and EA-12-051) and Emergency Preparedness Communication/Staffing/Multi-Unit Dose Assessment Plans, your compliance with the Commission's rules and regulations, and with the conditions of your operating license. Within these areas, the inspection involved examination of selected procedures and records, observation of activities, and interviews with station personnel.

No NRC-identified or self-revealing findings were identified during this inspection.

P. Fessler

-2-

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter, its enclosure(s), and your response, (if any), will be made available electronically for public inspection in the NRC Public Document Room or from the NRC's Agencywide Documents Access and Management System (ADAMS). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

Sincerely,

**/RA/**

Ann Marie Stone, Team Leader  
Technical Support Staff  
Division of Reactor Projects

Docket No. 50-341  
License No. NPF-43

Enclosure:  
Inspection Report 05000341/2017008

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U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Docket No: 50-341  
License No: NPF-43

Report No: 05000341/2017008

Licensee: Detroit Edison Company

Facility: Fermi Power Plant, Unit 2

Location: Newport, MI

Dates: January 23 through January 27, 2017

Inspectors: S. Sheldon, Project Engineer (Team Lead)  
B. Bartlett, Project Engineer  
A. Dunlop, Senior Reactor Inspector  
P. Smagacz, Resident Inspector

Approved by: A. Stone, Team Leader  
Technical Support Staff  
Division of Reactor Projects

Enclosure

## TABLE OF CONTENTS

SUMMARY .....	2
REPORT DETAILS .....	3
4. OTHER ACTIVITIES .....	3
4OA5 Other Activities (TI 2515/191) .....	3
4OA6 Management Meeting .....	6
SUPPLEMENTAL INFORMATION .....	1
Key Points of Contact .....	1
List of Items Opened, Closed, and Discussed .....	1
List of Documents Reviewed .....	2
List of Acronyms Used .....	7

## SUMMARY

Inspection Report 05000341/2017008; 01/23/2017 – 01/27/2017; Fermi Power Plant, Unit 2; Temporary Instruction 2515/191 Implementation of Mitigation Strategies and Spent Fuel Pool Instrumentation Orders and Emergency Preparedness Communication/Staffing/Multi-Unit Dose Assessment Plans.

This inspection was performed by three NRC regional inspectors and one resident inspector. No findings of significance or violations of NRC requirements were identified by the inspectors. The licensee identified one Green finding associated with FLEX Support Guidelines (FSG) to bypass equipment trips and since the finding did not involve a violation, no further documentation per NRC Inspection Manual Chapter 0612 Appendix B is required. The significance of inspection findings is indicated by their color (i.e., greater than Green, or Green, White, Yellow, Red) and determined using Inspection Manual Chapter (IMC) 0609, "Significance Determination Process," dated April 29, 2015. Cross-cutting aspects are determined using IMC 0310, "Aspects Within the Cross-Cutting Areas," dated December 4, 2014. All violations of NRC requirements are dispositioned in accordance with the NRC's Enforcement Policy, dated February 4, 2015. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process," Revision 6.

### NRC-Identified and Self-Revealing Findings

- None

### Licensee-Identified Violations

- None

## **REPORT DETAILS**

### **4. OTHER ACTIVITIES**

#### **4OA5 Other Activities (TI 2515/191)**

The objective of Temporary Instruction (TI) 2515/191, "Inspection of the Implementation of Mitigation Strategies and Spent Fuel Pool Instrumentation Orders and Emergency Preparedness Communication/Staffing/Multi-Unit Dose Assessment Plans," is to verify the licensee has adequately implemented the mitigation strategies as described in the licensee's Final Integrated Plan (ADAMS Accession No. ML16022A118), and the NRC's safety evaluation (ADAMS ML16258A040) and to verify the licensee installed reliable water-level measurement instrumentation in their spent fuel pool. The purpose of this TI was also to verify the licensee had implemented Emergency Preparedness (EP) enhancements as described in their site-specific submittals and NRC safety assessments, including multi-unit dose assessment capability and enhancements to ensure staffing is sufficient and communications can be maintained during such an event.

The inspection also verifies plans for complying with NRC Orders EA-12-049, Order Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events (ADAMS Accession No. ML12229A174) and EA-12-051, Order Modifying Licenses With Regard to Reliable Spent Fuel Pool Instrumentation (ADAMS Accession No. ML12056A044) are in place and are being implemented by the licensee. Additionally, the inspection verified implementation of staffing and communications information provided in response to the March 12, 2012, request for information letter and multiunit dose assessment information provided per COMSECY-13-0010, Schedule and Plans for Tier 2 Order on Emergency Preparedness for Japan Lessons Learned, dated March 27, 2013, (ADAMS Accession No. ML12339A262).

The inspectors discussed the plans and strategies with plant staff, reviewed documentation, and where appropriate, performed plant walk downs to verify the strategies could be implemented as stated in the licensee's submittals and the NRC staff prepared safety evaluation. For most strategies, this included verification that the strategy was feasible, procedures and/or guidance had been developed, training had been provided to plant staff, and required equipment had been identified and staged. Specific details of the team's inspection activities are described in the following sections.

#### **.1 Mitigation Strategies for Beyond-Design Basis External Events**

##### **a. Inspection Scope**

The inspectors examined the licensee's established guidelines and implementing procedures for the beyond-design basis mitigation strategies. The inspectors assessed how the licensee coordinated and documented the interface/transition between existing off-normal and emergency operating procedures with the newly developed mitigation strategies.

The inspectors selected a number of mitigation strategies and conducted plant walk downs with licensed operators and responsible plant staff to assess: the adequacy and completeness of the procedures; familiarity of operators with the procedure objectives and specific guidance; staging and compatibility of equipment; and the practicality of the operator actions prescribed by the procedures, consistent with the postulated scenarios.

The inspectors verified a preventive maintenance program had been established for the Diverse and Flexible Coping Strategies (FLEX) portable equipment and periodic equipment inventories were in place and being conducted. Additionally, the inspectors examined the introductory and planned periodic/refreshers training provided to the Operations staff most likely to be tasked with implementation of the FLEX mitigation strategies. The inspectors also reviewed the introductory and planned periodic training provided to the Emergency Response Organization personnel. Documents reviewed are listed in the attachment.

b. Assessment

Based on samples selected for review, the inspectors verified the licensee satisfactorily implemented appropriate elements of the FLEX strategy as described in the plant specific submittal(s) and the associated safety evaluation and determined the licensee is generally in compliance with NRC Order EA-12-049. The inspectors verified the licensee satisfactorily:

- developed and issued FSGs to implement the FLEX strategies for postulated external events;
- integrated their FSGs into their existing plant procedures such that entry into and departure from the FSGs were clear when using existing plant procedures;
- protected FLEX equipment from site-specific hazards;
- developed and implemented adequate testing and maintenance of FLEX equipment to ensure their availability and capability;
- trained their staff to assure personnel proficiency in the mitigation of beyond-design basis events; and
- developed the means to ensure the necessary off-site FLEX equipment would be available from off-site locations.

The inspectors verified non-compliances with current licensing requirements, and other issues identified during the inspection were entered into the licensee's corrective action program as appropriate.

c. Findings

No findings were identified.

## .2 Spent Fuel Pool Instrumentation

### a. Inspection Scope

The inspectors examined the licensee's newly installed spent fuel pool instrumentation. Specifically, the inspectors verified the sensors were installed as described in the plant specific submittals and the associated safety evaluation and that the cabling for the power supplies and the indications for each channel are physically and electrically separated. Additionally, environmental conditions and accessibility of the instruments were evaluated. Documents reviewed are listed in the attachment.

### b. Assessment

Based on samples selected for review, the inspectors determined the licensee satisfactorily installed and established control of the spent fuel pool (SFP) instrumentation as described in the plant specific submittal(s) and the associated safety evaluation and determined the licensee is generally in compliance with NRC Order EA-12-051. The inspectors verified the licensee satisfactorily:

- installed the SFP instrumentation sensors, cabling and power supplies to provide physical and electrical separation as described in the plant specific submittal(s) and safety evaluation;
- installed the SFP instrumentation display in the location, environmental conditions and accessibility as described in the plant specific submittal(s);
- trained their staff to assure personnel proficiency with the maintenance, testing, and use of the SFP instrumentation; and
- developed and issued procedures for maintenance, testing and use of the reliable SFP instrumentation.

The inspectors verified non-compliances with current licensing requirements, and other issues identified during the inspection were entered into the licensee's corrective action program.

### c. Findings

No findings were identified.

## .3 Staffing and Communication Request for Information

### a. Inspection Scope

Through discussions with plant staff, review of documentation and plant walk downs, the inspectors verified the licensee has implemented required changes to staffing, communications equipment and facilities to support a multi-unit extended loss of AC power (ELAP) scenario as described in the licensee's staffing assessment and the NRC safety assessment. The inspectors also verified the licensee has implemented multi-unit dose assessment (including releases from spent fuel pools) capability using the licensee's site-specific dose assessment software and approach as described in the licensee's multi-unit dose assessment submittal. Documents reviewed are listed in the attachment.

b. Assessment

The inspectors reviewed information provided in the licensee's multi-unit dose submittal and in response to the NRC's March 12, 2012, request for information letter and verified that the licensee satisfactorily implemented enhancements pertaining to Near-Term Task Force Recommendation 9.3 response to a large scale natural emergency event that results in an extended loss of all ELAP power to all site units and impedes access to the site. The inspectors verified the following:

- the licensee satisfactorily implemented required staffing changes to support a multi-unit ELAP scenario;
- EP communications equipment and facilities are sufficient for dealing with a multi-unit ELAP scenario; and
- the licensee implemented multi-unit dose assessment capabilities (including releases from spent fuel pools) using the licensee's site-specific dose assessment software and approach.

The inspectors verified non-compliances with current licensing requirements, and other issues identified during the inspection were entered into the licensee's corrective action program.

c. Findings

No findings were identified.

4OA6 Management Meeting

.1 Exit Meeting Summary

On January 27, 2017, the NRC inspectors discussed the results of this inspection with Mr. K. Polson and other members of the licensee's staff. The licensee acknowledged the issues presented. The inspectors confirmed none of the potential report input discussed was considered proprietary.

ATTACHMENT: SUPPLEMENTAL INFORMATION

## **SUPPLEMENTAL INFORMATION**

### **KEY POINTS OF CONTACT**

#### Licensee

K. Polson,	Site Vice President
E. Kokosky,	Director – Organizational Effectiveness
D. Noetzel,	Director – Nuclear Engineering
L. Bennett,	Director – Operations
S. Maglio,	Manager – Licensing
N. Avrakotos,	Manager – Radiological Emergency Response Program
A. Sabisch,	Supervisor – Nuclear Quality Assurance
K. Mann,	Supervisor – Compliance
M. Kramer,	Shift Manager – Operations
G. Lane,	Superintendent – Maintenance
S. Ward,	Senior Licensing Engineer – Licensing
K. Burke,	Contractor

### **LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED**

#### Open, Closed, and Discussed

None

## LIST OF DOCUMENTS REVIEWED

The following is a partial list of documents reviewed during the inspection. Inclusion on this list does not imply that the NRC inspector reviewed the documents in their entirety, but rather that selected sections or portions of the documents were evaluated as part of the overall inspection effort. Inclusion of a document on this list does not imply NRC acceptance of the document or any part of it, unless this is stated in the body of the inspection report.

### Condition Reports Initiated as a Result of the Inspection

- 17-20653; 2017 NRC FLEX FSF Posters Need Update to Match Revision of 29.FSG.02; 1/23/17
- 17-20665; N Generator Load Test at First Did Not Look Like it Met PST Requirements; 1/24/17
- 17-20676; NRC Inspector with Incomplete Dosimetry Paperwork Issued DLR; 1/24/17
- 17-20688; 2017 NRC FLEX: While Walking Down FLEX Procedures and Individual Contacted a Panel; 1/24/17
- 17-20706; A Return to Service Log Entry was Not Made for the FLEX N+1 Diesel Generator on 09/30/16; 01/25/16
- 17-20706; Return to Service Log Entry for FLEX N+1 Diesel Generator Not Made IAW MOP 25 Step 4.2.2; 1/25/17
- 17-20710; 2017 NRC FLEX: Evaluate Placing the TPC for FLEX in the Fermi Cable Testing Program; 1/25/17
- 17-20711; 2017 NRC FLEX: Evaluate Change Out Frequency of Fuel Hose; 1/25/17
- 17-20715; 2017 NRC FLEX: Evaluate FLEX Labeling; 1/25/17
- 17-20717; 2017 NRC FLEX: Evaluate Labeling for H11P612; 1/25/17
- 17-20720; Procedural Enhancement: FLEX Guidance for Insulating Lifted Leads; 1/25/17
- 17-20727; PM Events G463 & G464 for SFP Level Instrumentation Need to be Performed; 1/25/17
- 17-20732; 2017 NRC FLEX: Replace Headlamp Supply in Control Room FLEX File; 1/25/17
- 17-20747; 2017 NRC FLEX: DC-6540 FLEX Building Generator Fuel Consumption Not Included; 1/26/17
- 17-20748; 2017 NRC FLEX: Revise 29.FSG.17 to Add Flexibility and FL26; 1/26/17
- 17-20750; Strengthen Guidance for Maintaining DC MCC Area and Battery Charger Room Temperature; 01/26/17
- 17-20751; 2017 NRC FLEX: Enhancement to Post-ELAP Dose Assessment & RET Briefings; 1/26/17
- 17-20753; 2017 NRC FLEX: Procedural Enhancement to Notify Personnel that CW Bay is Potentially Contaminated; 1/26/17
- 17-20756; 2017 NRC FLEX: Inventory Discrepancies for the FLEX Box Truck Contents Resolution Document; 1/26/17
- 17-20764; 2017 NRC FLEX – Security CBT Training; 1/26/17
- 17-20778; 2017 NRC FLEX: NRC Concern on Required Equipment Inventory; 1/26/17
- 17-20783; 2017 NRC FLEX Inspection: Validation Enhancement; 1/26/17
- 17-20785; Design Change Procedure MES19 had Limited Scope for Review of Design Changes; 01/26/17

### Condition Reports Reviewed

- 14-26580; FLEX Pumping System Operational Concerns; 08/18/14
- 15-21366; Self-Assessment Recommendation: Nuclear Security Needs to Consider Incorporating Defined FLEX Actions into Security Programs/Processes; 2/19/15
- 15-21887; RERP/Staffing Assessment/Final DTE MAAP Analysis; 3/18/15
- 15-21984; RERP/Staffing Assessment/Clarify Operations Conduct Manual MOP03; 3/18/15

- 15-21985; RERP/Staffing Assessment/Changes to Minimum Staff; 3/18/15
- 15-21986; RERP/Staffing Assessment/Guidance to Assemble "Off Duty" Personnel; 3/18/15
- 15-21987; RERP/Staffing Assessment/Revise LP-ER-828-0001 for ERO Assemble; 3/18/15
- 15-21988; RERP/Staffing Assessment/Satellite Phones Guidance Documents; 3/18/15
- 15-21989; RERP/Staffing Assessments/Tools Required to Breach PA Fence; 3/18/15
- 15-21990; RERP/Staffing Assessment/Communication UPS "Throw Over" Switch; 3/18/15
- 15-21991; RERP/Staffing Assessment/Support for 29.FSG.14, "HPCI/RCIC Oil Cooling" ; 3/18/15
- 15-21992; RERP/Staffing Assessment/Capability to Perform Dose Assessment; 3/18/15
- 15-21993; RERP/Staffing Assessment/Chemistry FSG Task Assignment; 3/18/15
- 15-21994; RERP/Staffing Assessment/Supplemental Staff for Flooding; 3/18/15
- 15-21995; RERP/Staffing Assessment/No Alternate Power for AEOF Satellite Phones; 3/18/15
- 15-21996; RERP/Staffing Assessment/Locate 4 Satellite Phones; 3/18/15
- 15-21998; RERP/Staffing Assessment/Identify Procedure Changes to FSGs; 3/18/15
- 15-22196; Configuration Control – Change to Fuel Pool Level Signal Processor; 3/25/15
- 15-23044; Spent Fuel Pool Level Indicator Temp/Humid Documentation; 4/28/15
- 15-23045; Spent Fuel Pool Level Indicator Sola Power Supply; 4/28/15
- 15-24386; Request for Establishing a Restricted Zone Near SPFLI Instrument Racks and Probes; 6/23/15
- 15-24400; Procedure Enhancement from NRC Audit Team; 6/24/15
- 16-00376; N Dominator Engine Block Heater Failed; 04/02/16
- 16-00444; N Dominator Engine Block Heater Failed; 02/27/16
- 16-20682; FLEX Diesel Air Compressor did Not Operate Per the Instructions; 01/26/16
- 16-22442; PSF FL28 Inventory with Unsatisfactory Items; 3/20/16
- 16-22959; PST Event FL26 Discrepancies; 4/9/16
- 16-24115; FLEX Diesel Engines did Not Match Michigan DEQ Permit; 05/18/16
- 16-24423; Job Instructions for Running the B Dominator Diesel are Too Vague; 05/28/16
- 16-26907; FLEX Trailer Tires Starting to Deflate; 08/30/16
- 16-26976; FLEX Diesel Generator Load Test Procedure Issues; 09/01/16
- 16-27205; N Dominator Engine Block Heater Failed; 09/10/16
- 16-29047; A 335 ft. Long 10 Inch Diameter Hose has a Knife Cut; 11/11/16
- 16-29270; FLEX/SFPI Inspection Readiness Assessment: Inventory of FLEX Support Equipment Outside of FLEX Buildings; 11/17/16
- 17-20400; FSGs for HPCI and RCIC Defeats Were in Error and Would Have Resulted in the Pumps Not Operating; 1/12/17
- 17-20620; FLEX Implementation Timing Validation Review; 1/22/17

#### Calculations

- DC 5891; Circulating Water Reservoir Size and Volume; Rev 0
- DC-6540; FLEX Phase 2 Diesel Consumption Calculation; Rev A
- DC-6585; Loss of HVAC-Room Environment Analysis in Support of FLEX: RB/AB/TB Temperature Profile Analysis; Rev A
- DC-6586; Loss of HVAC-Room Environment Analysis in Support of FLEX: Battery Room Temperature and Hydrogen Concentration; Rev A
- DC-6587; Loss of HVAC-Room Environment Analysis in Support of FLEX: HPCI, RCIC, and RHR Room Temperature and Water Analysis; Rev A
- DC-6603; Evaluation of Liquefaction of Soil in the FLEX Deployment Path; Rev 0
- TE-K11-14-007; FLEX Phase 3 Emergency Response (SAFER), 4160 VAC Generators (2); Rev A
- TE-K11-14-015; FLEX Phase 3 Emergency Response (SAFER), 480 VAC Generator for Communications Building; Rev 0

- TE-K11-15-042; Lift-Pump Cleaning Time (FLEX); Rev A
- X11-001; Support Establishment of FLEX Coping Times; 9/22/14

#### Drawings

- 183141-2FSC-S5205; Flex Storage Facility #1 and #2 Reinforcement Details and Sections; Rev 0
- 4SD721-2513-60A; Interconnecting Diagram 480V Cab 72C-2C; Rev R
- 4SD721-2513-91; Interconnecting Diagram 480V Cab 72F-4B; Rev R
- 5I721-2600-04; One Line Diagram Reactor Building 120AC Distribution; Rev Y
- 6C721X-3103; Flex Storage Facility #1 Excavation and Backfill Plan and Sections; Rev 0
- 6I721-2231-07; Schematic Diagram RCIC Turbine Steam Inlet, Turbine Cooling Water and Steam Inlet Bypass Valves; Rev AA
- 6I721-2235-02; Schematic Diagram RCIC System Logic; Rev S
- 6M721-2707; Flow Diagram Reactor and Auxiliary Building Ventilation; Rev P
- 6SD721-2500-13; FLEX One Line Diagram; Rev BI
- 6SD721-2510-01; One Line Diagram 480V ESS; Rev AQ
- 6SD721-2530-02; One Line Diagram Instrument and Control Power Feeders; Rev AB
- C-X-3106; FLEX Trench Reinforcing Details; Rev 0
- E-2987-02; FLEX Storage Building #1 Underground Duct Bank; Rev 0
- E-2988-1; Cable Bus – Isometric Yard, Reactor & Radwaste Buildings; Rev A
- M-5276; General Service Water System Functional Operating Sketch; Rev CC
- SD-2500-01; One Line Diagram Plant 4160V & 480V System Service; Rev BI
- SD-2500-02; One Line Diagram 13.8KV; Rev AR
- SD-2500-03; One Line Diagram 4160V System Service Buses 64B, 64C; Rev S
- SD-2500-04; One Line Diagram 4160V System Service Buses 65E, 65F, 65G – Reactor Building Unit #2; Rev T
- SD-2500-09; Phasing Diagram Main Power System; Rev X
- SD-2500-13; FLEX One Line Diagram; Rev 0
- W2500; Site Fill for Circulating Water Pond and Cooling Tower Overflow Canals-Yard; Rev M

#### Miscellaneous Documents

- AREVA Information Record 51-9199717-015; National SAFER Response Center Equipment Technical Requirements; 3/10/16
- Emergency Communication; Requirements, Methods and Bases; Rev 3; October 2015
- NRC-12-0064; Detroit Edison's Response to March 12, 2012, Information Request for Assessment of Emergency Preparedness Communications; 10/29/12
- NRC-13-0013; DTE Electric Submittal of Flooding Hazard Reevaluation Report in Response to March 12, 2012, Information Request Regarding Flood Protection Evaluations; 3/8/13
- NRC-13-0044; DTE Electric Company's First Six Month Status Report in Response to March 12, 2012, Commission Order Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events (Order Number EA-12-049); 8/26/13 (ML13239A121)
- NRC-15-0040; Emergency Preparedness Phase 2 Staffing Assessment; 4/17/15 (ML15107A399)
- NRC-16-0002; Emergency Planning Communication During an Extended Loss of AC Power Report Rev; 1/20/16
- NSRC 005; SAFER Response Plan for Enrico Fermi Nuclear Generating Station; Rev 0
- RERP Work Instruction; Enhanced Communications Test and Inventory; Rev 0
- TMII-15-0003; Results of February 10 – 11 Tabletop Exercise; 04/23/15
- TMII-15-0008; Fukushima Project – FLEX Validation Process (FVP) Group B Results; 08/14/15

- TMII-15-0010; Fukushima Project – FLEX Validation Process (FVP) Review Cycle C Results; 09/29/15
- TMII-15-0011; Fukushima Project – FLEX Validation Process (FVP) Overview Rev 2; 10/29/15
- TMII-15-0012; Fukushima Project – FLEX Validation Process (FVP) Review Group D Results; 11/10/15
- TMII-15-12; Fukushima Project – FLEX Validation Process (FVP) Review Group D Results; 11/10/15

#### Modifications

- EDP-37084; FLEX – RHR System and Flex Pumps Cross-Tie; Rev B
- EDP-37088; Spent Fuel Pool Instrumentation; Rev 0
- EDP-37122; FLEX – Backup Power to Divisions 1 & 2, 480V Division 1 ESF Buses; Rev XX
- EDP-37124; FLEX – Storage Facilities for Phase 2 Equipment; Rev 0
- EDP-37129; Emergency Preparedness (EP) Communications; Rev 0
- EDP-37271; FLEX Bleed Water Path - HPCI Test Line to GSW; Rev 0
- EDP-37295; Hardened Vent Mod to Address Fukushima Event & NRC Order EA-13-109 Leak Rate Testing & External NIAS Supply (RF17); Rev B

#### Procedures

- 20.000.01; Acts of Nature; Rev 50
- 20.300.SBO; Loss of Offsite and Onsite Power; Rev 23
- 20.FSG.Plant; FLEX Plant; Rev 1
- 23.107.02; Floodup and Drain Down of Main Condenser System; Rev 34
- 23.708; Fuel Pool Cooling and Cleanup System; Rev 81
- 28.508.06; Weekly Inspection EDM Equipment; Rev 4
- 29.100.0; RPV Control; Rev 16
- 29.400 Sh 1; Flex Flowchart – 1; Rev 0
- 29.400 Sh 2; Flex Flowchart – 2; Rev 0
- 29.400.01; FLEX; Rev 0, 1
- 29.400.02; FLEX Flood; Rev 1
- 29.FSG.01; FLEX DC; Rev 1
- 29.FSG.02; FLEX Outside Equipment Setup; Rev 1
- 29.FSG.04; FLEX AC; Rev 1
- 29.FSG.05; FLEX Containment Cooling; Rev 1a
- 29.FSG.07; FLEX ARI Defeats; Rev 1
- 29.FSG.08; FLEX HPCI Defeats; Rev 2
- 29.FSG.09; FLEX RCIC Defeats; Rev 2
- 29.FSG.10; FLEX Diesel Air Compressor; Rev 1
- 29.FSG.11; FLEX RPV Injection; Rev 1
- 29.FSG.12; FLEX SFP Injection; Rev 1
- 29.FSG.13; FLEX Containment Venting; Rev 1, 2
- 29.FSG.14; FLEX HPCI RCIC OIL and Room Cooling; Rev 1
- 29.FSG.15; FLEX Phase 3 Preparations; Rev 1
- 29.FSG.16; FLEX Building Emergency Power; Rev 0
- 29.FSG.17; FLEX Fuel Management; Rev 0
- 29.FSG.19; FLEX RBHVAC Restoration; Rev 1
- 29.FSG.19; FLEX Toolbox – RBHVAC Restoration; Rev 0
- 29.FSG.20; FLEX Ventilation and Building Heating Control; Rev 1
- 29.FSG.PLANT; FLEX Plant; Rev 1
- 35.321.002; SAFER Supplied Temporary Power Generator to SST 64 Busses; Rev 0
- 35.321.003; SAFER Supplied Temporary Power Generator to SST 65 Busses; Rev 0

- 46.635.001; Spent Fuel Pool Level Indication, Primary System, Diagnostic Checks; Rev 2
- AOP 20.000.21; Reactor Scram; Rev 66
- EP-205-01; Security Force; Rev 29
- EP-530; Assembly and Accountability and Onsite Protective Actions; Rev 27A
- EP-542; Computer-Based Offsite Dose Assessment – Airborne Release; Rev 13
- LP-GN-909-10151D; Security Specific FLEX Responsibilities; Rev 0
- LP-GN-909-10155A; FLEX Overview; Rev 0
- MES19; Preparation and Control of Engineering Design Packages; Rev 47A
- MGA02; Procedures, Manual and Orders; Rev 40A
- MOP25; Beyond Design Basis Event Coping Strategies Program Document; Rev 2
- MWC13; Outage Nuclear Safety; Rev 15

#### Training Documents

- CP-ER-873; Beyond Design Basis External Event (BDBEE) Training; Rev 0
- LP-ER-873-0001; BDBEE Fermi Specific Overview; Rev 0
- LP-ER-873-0002; Fermi EP Enhanced Communications; Rev 0
- LP-ER-873-0003; SAFER Interface & Coordination; Rev 0
- LP-ER-873-0004; BDBEE Command & Control; Rev 0
- LP-ER-873-0005; ERO Logic Failure; Rev 0
- LP-ES-230-1098; Fermi 2 FLEX Overview; Rev 0
- LP-GN-909-0152A; Fermi 2 BDBEE 6 Hour Responder
- LP-GN-909-1151M; FLEX Gap Training; Rev 1
- LP-OP-202-1447; Fermi 2 FLEX Overview; Rev 2
- LP-OP-202-1551; Fermi 2 FLEX Task Training – ELAP; Rev 2
- LP-OP-202-1552; Fermi 2 FLEX Task Training – Flood; Rev 2
- LP-OP-202-1553; Fermi 2 FLEX Instrument and Logic Failures; Rev 2
- LP-OP-202-1554; Flex Electrical Lab; Rev 0
- LP-OP-202-1555; Flex I&C Lab; Rev 0

#### Work Orders

- WO 38049202; EDP-37122 Install Cable from Aux Bldg N Wall to DIV 1 Switchgear; 8/6/15
- WO 41897229; EDP-37122 Install Cable from Aux Bldg N Wall to DIV 2 Switchgear; 8/11/15
- WO 41942940; EDP-37122 Perform Phase Rotation Verification DIV 1 Switchgear; 10/4/15
- WO 42410787; EDP-37122 Perform Phase Rotation Verification DIV 2 Switchgear; 10/4/15
- WO 42562596; System Check Inspection/Cleaning of Spent Fuel Pool Level Primary Channel; 6/27/16
- WO 42613793; Pump SAT Test; 5/25/15
- WO 42883378; System Check Inspection/Cleaning of Spent Fuel Pool Level Backup Channel; 7/31/15
- WO 42986429; Perform Quarterly Enhanced Comm Test and Inventory; 10/26/16
- WO 44430701; Perform FSF-1 Building Inventory Checks; 3/13/16
- WO 44430900; Perform FSF-2 Building Inventory Checks; 4/9/16
- WO 44430902; Perform FSF-2 Building Inventory Checks; 5/7/16
- WO 44430956; Perform 550kW S001B Diesel Load Test; 9/26/16
- WO 44431069; Perform Air Compressor D002A Annual Start Test; 8/10/16
- WO 44544161; Perform 28.508.06 Weekly EDM Equipment Testing and Maintenance; 1/6/16
- WO 44590791; Perform Quarterly Testing of Train B Dominator Diesel; 9/8/16
- WO 44786314; Perform Quarterly Testing of Train B Neptune Diesel; 9/26/16
- WO 46089825; Testing of the Dominator and Neptune After Refurbishment of the Tier of Engine; 9/15/16

## LIST OF ACRONYMS USED

AC	Alternating Current
ADAMS	Agencywide Document Access Management System
CAP	Corrective Action Program
CFR	<i>Code of Federal Regulations</i>
ELAP	Extended Loss of AC Power
FLEX	Diverse and Flexible Coping Strategies
FSG	FLEX Support Guidelines
NCV	Non-Cited Violation
NRC	U.S. Nuclear Regulatory Commission
SDP	Significance Determination Process
SFP	Spent Fuel Pool
TI	Temporary Instruction
TS	Technical Specification
WO	Work Order

P. Fessler

-3-

Letter to Paul Fessler from Ann Marie Stone dated February 23, 2017

SUBJECT: FERMI POWER PLANT, UNIT 2—NRC TEMPORARY INSTRUCTION 2515/191,  
MITIGATION STRATEGIES, SPENT FUEL POOL INSTRUMENTATION AND  
EMERGENCY PREPAREDNESS INSPECTION REPORT 05000341/2017008

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