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August 27, 2015
NRC-15-0087

10 CFR 2.202

U. S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, DC 20555-0001

- References:
- 1) Fermi 2
NRC Docket No. 50-341
NRC License No. NPF-43
 - 2) NRC Order EA-12-049, "Issuance of Order to Modify Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events," dated March 12, 2012 (ADAMS Accession No. ML12054A735)
 - 3) NRC Interim Staff Guidance JLD-ISG-2012-01, "Compliance with Order EA-12-049, Order Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis Events," Revision 0, dated August 29, 2012 (ADAMS Accession No. ML12229A174)
 - 4) NEI 12-06, "Diverse and Flexible Coping Strategies (FLEX) Implementation Guide," Revision 0, dated August 2012 (ADAMS Accession No. ML12242A378)
 - 5) DTE Electric Company letter, NRC-12-0061, "Detroit Edison's Initial 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)," dated October 19, 2012 (ADAMS Accession No. ML12296A041)
 - 6) DTE Electric Company letter, NRC-13-0009, "DTE Electric's Overall Integrated Plan 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)," dated February 28, 2013 (ADAMS Accession No. ML1306A262)

Subject: DTE Electric Company's Fifth 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)

On March 12, 2012, the Nuclear Regulatory Commission ("NRC" or "Commission") issued an order (Reference 2) to DTE Electric Company (DTE). Reference 2 was immediately effective and directed DTE to develop, implement, and maintain guidance and strategies to maintain or restore core cooling, containment, and spent fuel pool cooling capabilities in the event of a beyond-design-bases external event. Specific requirements are provided in Attachment 2 of Reference 2.

Reference 2 required submission of an initial status report 60 days following issuance of the final interim staff guidance (Reference 3) and an overall integrated plan pursuant to Section IV, Condition C. Reference 3 endorses industry guidance document NEI 12-06, Revision 0 (Reference 4) with clarifications and exceptions identified in Reference 3. Reference 5 provided the DTE initial status report regarding mitigation strategies. Reference 6 provided the DTE overall integrated plan.

Reference 2 requires submission of a status report at six-month intervals following submittal of the overall integrated plan. Reference 4 provides direction regarding the content of the status reports. The purpose of this letter is to provide the fifth six-month status report pursuant to Section IV, Condition C.2, of Reference 2, that delineates progress made in implementing the requirements of Reference 2. Enclosure 1 provides an update of milestone accomplishments since the last status report, including any changes to the compliance method, schedule, or need for relief and the basis, if any.

This letter contains no new regulatory commitments.

Should you have any questions or require additional information, please contact Mr. Christopher Robinson, Licensing Manager at (734) 586-5076.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on August 27, 2015



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Enclosure: DTE Electric Company's Fifth Six Month Status Report for the
Implementation of Order EA-12-049, Order Modifying Licenses with
Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis
External Events

cc: Director, Office of Nuclear Reactor Regulation
NRC Project Manager
NRC Resident Office
Reactor Projects Chief, Branch 5, Region III
Regional Administrator, Region III
Michigan Public Service Commission,
Regulated Energy Division (kindschl@michigan.gov)

**Enclosure to
NRC-15-0087**

**Fermi 2 NRC Docket No. 50-341
Operating License No. NPF-43**

**DTE Electric Company's Fifth Six Month Status Report for the
Implementation of Order EA-12-049, Order Modifying Licenses with Regard
to Requirements for Mitigation Strategies for Beyond-Design-Basis External
Events**

DTE Electric Company's Fifth Six Month Status Report for the Implementation of Order EA-12-049, Order Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events

1. Introduction

DTE Electric Company (DTE) developed an Overall Integrated Plan (OIP) (Reference 7.1), documenting the diverse and flexible strategies (FLEX), in response to Reference 7.2. This enclosure provides an update of milestone accomplishments since submittal of the last six-month update, including any changes to the compliance method, schedule, or need for relief/relaxation and the basis, if any.

2. Milestone Accomplishments

The following milestones have been accomplished since the last update and as of July 31, 2015:

- Perform Staffing Analysis
- Procure Staging Location
- Develop Training Plan

3. Milestone Schedule Status

The following provides an update to the milestone schedule to support the Overall Integrated Plan. Target completion dates provided in this section include updates from previous six-month updates. This section provides the activity status of each item, and the expected completion date. The dates are planning dates subject to change as design and implementation details are developed and are current as of July 31, 2015.

Milestone	Target Completion Date	Activity Status
Submit 60 Day Status Report	Oct 2012	Complete (Reference 7.3)
Submit Overall Integrated Plan	Feb 2013	Complete (Reference 7.1)
Submit 6 Month Updates:		
Update 1	Aug 2013	Complete (Reference 7.4)
Update 2	Feb 2014	Complete (Reference 7.5)
Update 3	Aug 2014	Complete (Reference 7.6)
Update 4	Feb 2015	Complete (Reference 7.7)
Update 5	Aug 2015	Complete This document

FLEX Strategy Evaluation		
Validation Walk-through or Demonstrations *	Nov 2015	In-progress
Perform Staffing Analysis	Apr 2015	Complete
Modifications:		
Design Engineering	Dec 2014	Complete
Implementation	Nov 2015	In-progress
Storage		
Storage Design Engineering	Dec 2014	Complete
Storage Implementation	Nov 2015	In-progress
FLEX Equipment		
Procure On-Site Equipment	Aug 2015	In-progress
Develop Strategies with RRC **	Feb 2015	Complete
Procure Staging Location	Apr 2015	Complete
Procedures:		
Create Procedures	Dec 2014	Complete
Training:		
Develop Training Plan	Jul 2015	Complete
Training Complete	Nov 2015	In-progress
FLEX Implementation	Nov 2015	In-progress
Submit Completion Report	Jan 2016	On Target

*The strategy validation activity scheduled completion date is modified from August 2016 to November 2015 to support implementation schedule.

** The Regional Response Centers (RRC) are now named National SAFER Response Centers

4. Changes to Compliance Method

Fermi 2 is permanently installing FLEX electrical distribution equipment to convey FLEX 480 VAC power between portable FLEX generators at FLEX Support Facility #1 (FSF1) and essential buses and Motor Control Centers (MCCs) in the Auxiliary Building. The new installation includes an Equipment Chase which is designed to the requirements of Seismic Category I structures. The permanent installation of pre-staged FLEX electrical distribution equipment is an alternative approach to NEI 12-06 (Reference 7.8).

The use of pre-staged permanently installed FLEX electrical distribution equipment facilitates re-energizing the critical plant electrical loads more quickly and efficiently than the use of portable cables and lengthy deployment paths from the portable FLEX Diesel Generators located in the FLEX storage building. This mitigation strategy is acceptable because the FLEX electrical distribution equipment is permanently installed in robust structures designed to adequately withstand all applicable external events and has access pathways that are expected to be clear of debris following the initiating event. The installation constitutes an acceptable alternative approach to the NRC endorsed guidance provided in NEI 12-06. A more detailed evaluation has been provided in a position paper that has been provided to the NRC staff.

5. Need for Relief/Relaxation and Basis for the Relief/Relaxation

DTE expects to comply with the order implementation date and no relief/relaxation is required at this time.

6. Open Items from Interim Staff Evaluation

The following table provides a summary of the open items documented in the Interim Staff Evaluation (ISE) (Reference 7.9) and the status of each item. An on-site audit, conducted by NRC staff the week of June 22, 2015, closed these three items.

ISE Open Item	Status
3.1.1.1.A. Each section of the Integrated Plan describing storage protection from hazards makes reference to Section 11 rather than to the specific protection requirements described in NEI 12-06 for the applicable hazard; that is Section 6.2.3.1 for floods, Section 7.3.1 for wind, etc.	As reported in Reference 7.5, the OIP has been revised to refer to the specific requirements of NEI 12-06. This item was reported as closed following the on-site audit.
3.2.2.A Until the issue of relying on blow-away panels to prevent [over] pressurization of the RB-5 is provided there is no reasonable assurance that the plan will conform with NEI 12-06, Table C-3.	As reported in Reference 7.5, means to vent RB-5 have been added to the Fermi 2 strategy and the OIP has been revised accordingly. This item was reported as closed following the on-site audit.
3.2.3.B Revision 3 to the BWROG EPG SAG is a Generic Concern because the BWROG has not addressed the potential for the revised venting strategy to increase the likelihood of detrimental effects on containment response for events in which the venting strategy is invoked. [Note: For Fermi, containment venting is a backup plan to torus feed and bleed discussed above.]	As reported in Reference 7.5, the NRC generic concerns with the revised venting strategy contained in Revision 3 to the BWROG EPG SAG have been resolved. This venting strategy is being incorporated into the Fermi 2 Emergency Operating Procedures. At Fermi 2, use of containment venting is a back-up to the primary strategy. This item was reported as closed following the on-site audit.

7. References

- 7.1 DTE Electric Company letter, NRC-13-0009, “DTE Electric’s Overall Integrated Plan 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),” dated February 28, 2013 (ADAMS Accession No. ML1306A262)

- 7.2 NRC Order Number EA-12-049, "Issuance of Order to Modify Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events," dated March 12, 2012 (ADAMS Accession No. ML12054A735)
- 7.3 DTE Electric Company letter, NRC-12-0061, "Detroit Edison's Initial 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)," dated October 19, 2012 (ADAMS Accession No. ML12296A041)
- 7.4 DTE Electric Company letter, 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)," dated August 26, 2013 (ADAMS Accession No. ML13239A121)
- 7.5 DTE Electric Company letter, NRC-14-0002, "DTE Electric Company's Second 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)," dated February 27, 2014 (ADAMS Accession No. ML14059A350)
- 7.6 DTE Electric Company letter, NRC-14-0060, "DTE Electric Company's Third 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)," dated August 28, 2014 (ADAMS Accession No. ML14241A298)
- 7.7 DTE Electric Company letter, NRC-15-0014, "DTE Electric Company's Fourth 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)," dated February 23, 2015 (ADAMS Accession No. ML15056A399)
- 7.8 NEI 12-06, "Diverse and Flexible Coping Strategies (FLEX) Implementation Guide," Revision 0, dated August 2012 (ADAMS Accession No. ML12242A378)
- 7.9 NRC Letter, "Fermi, Unit 2 – Interim Staff Evaluation Relating to Overall Integrated Plan in Response to Order EA-12-049 (Mitigation Strategies) (TAC No. MF0770), dated November 25, 2013 (ADAMS Accession No. ML13220A133)