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AEP-NRC-2013-71  
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Docket Nos.: 50-315  
50-316

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

Donald C. Cook Nuclear Plant Units 1 and 2  
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)

References:

1. Letter from E. J. Leeds and M. R. Johnson, U. S. Nuclear Regulatory Commission (NRC) to All Power Reactor Licensees and Holders of Construction Permits in Active or Deferred Status, "Issuance of Order to Modify Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events," dated March 12, 2012, ML12059A735.
2. 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 External Events, Revision 0, dated August 29, 2012, ML12229A174.
3. NEI 12-06, Diverse and Flexible Coping Strategies (FLEX) Implementation Guide, Revision 0, dated August 2012, ML 12242A378.
4. Letter from J. P. Gebbie, Indiana Michigan Power Company, to NRC, "Donald C. Cook Nuclear Plant, Units 1 and 2, 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 26, 2012, ML 12312A473.
5. Letter from J. P. Gebbie, Indiana Michigan Power Company, to NRC, "Donald C. Cook Nuclear Plant, Unit 1 and Unit 2, 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 27, 2013, ML 13101A381.

AISI  
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On March 12, 2012, the Nuclear Regulatory Commission issued order EA-12-049 (Reference 1) to Indiana Michigan Power Company (I&M), the licensee for the Donald C. Cook Nuclear Plant (CNP) Units 1 and 2. Reference 1 was immediately effective and directed I&M to develop, implement, and maintain guidance and strategies to restore or maintain core cooling, containment, and spent fuel pool cooling capabilities in the event of a beyond-design-basis external event. Specific requirements were outlined in Attachment 2 of the enclosure of Reference 1.

Reference 1 required submission of an initial status report 60 days following issuance of the final interim staff guidance (Reference 2) and an overall integrated plan pursuant to Section IV, Condition C. Reference 2 endorses industry guidance document NEI 12-06, Revision 0 (Reference 3) with clarifications and exceptions identified. Reference 4 provided the CNP initial status report regarding mitigation strategies. Reference 5 provided the CNP overall integrated plan.

Reference 1 requires submission of a status report at six-month intervals following submittal of the overall integrated plan. Reference 3 provides direction regarding the content of the status reports. The purpose of this letter is to provide the first six-month status report pursuant to Section IV, Condition C.2, of Reference 1, delineating progress made in implementing the requirements of Reference 1. Enclosure 1 to this letter provides an affirmation. Enclosure 2 to this letter provides the six month update for the implementation of Order EA-12-049, Order Modifying Licenses with Regard to Requirements for Mitigation of Strategies for Beyond-Design-Basis External Events, including an update of milestone accomplishments since the initial status report, and a change to the compliance method. There is no change to the final implementation schedule, or need for relief at this time.

This letter contains no new or revised regulatory commitments. Should you have any questions, please contact Mr. Michael K. Scarpello, Regulatory Affairs Manager, at (269) 466-2649.

Sincerely,



FOR Joel P. Gebbie  
Site Vice President

DMB/kmh

Enclosures:

1. Affirmation
2. Indiana Michigan Power Company's First 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

c: J. T. King, MPSC  
J. A. Kratchman, NRR/JLD/PMB, NRC  
S. M. Krawec, AEP Ft. Wayne, w/o enclosure  
E. J. Leeds, NRR, NRC  
MDEQ – RMD/RPS  
NRC Resident Inspector  
C. D. Pederson, NRC Region III  
T. J. Wengert, NRC Washington, DC

AFFIRMATION

I, Joel P. Gebbie, being duly sworn, state that I am Site Vice President of Indiana Michigan Power Company (I&M), that I am authorized to sign and file this request with the Nuclear Regulatory Commission on behalf of I&M, and that the statements made and the matters set forth herein pertaining to I&M are true and correct to the best of my knowledge, information, and belief.

Indiana Michigan Power Company

  
FOR Joel P. Gebbie  
Site Vice President

SWORN TO AND SUBSCRIBED BEFORE ME

THIS 26 DAY OF August, 2013

  
Notary Public

My Commission Expires 04-04-2018

**DANIELLE BURGOYNE**  
Notary Public, State of Michigan  
County of Berrien  
My Commission Expires 04-04-2018  
Acting in the County of Barrien

**Enclosure 2 to AEP-NRC-2013-71**

**Indiana Michigan Power Company's First 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**

Indiana Michigan Power Company (I&M), the licensee for Donald C. Cook Nuclear Plant (CNP), developed an Overall Integrated Plan (OIP) (Reference 1 in Section 8), documenting the diverse and flexible strategies (FLEX), in response to Reference 2. This attachment provides an update of milestone accomplishments since submittal of the OIP, including a change to the compliance method. There is no change to the final implementation schedule, or need for relief/relaxation at this time.

**2. Milestone Accomplishments**

The following milestone(s) have been completed since the development of the OIP (Reference 1), and are current as of July 30, 2013.

None (no milestones were scheduled to be completed between 2/28/13 and 8/27/13).

**3. Milestone Schedule Status**

The following provides an update to Attachment 2 of the OIP. It provides the activity status of each item, and whether the expected completion date has changed. The dates are planning dates subject to change as design and implementation details are developed.

<b>Milestone</b>	<b>Target Completion Date</b>	<b>Activity Status</b>	<b>Revised Target Completion Date</b>
Submit 60 Day Status Report	October 2012	Complete	
Submit Overall Integrated Plan	February 2013	Complete	
<b>Submit 6 Month Updates:</b>			
Update 1	August 2013	Complete with this submittal	
Update 2	February 2014	Not Started	
Update 3	August 2014	Not Started	
Update 4	February 2015	Not Started	
Walk-throughs or Demonstrations	June 2015	Not Started	
Perform Staffing Analysis	June 2014	Not Started	
<b>Modifications:</b>			
Modifications Evaluation	December 2013	Started	
Unit 1 Design Engineering	June 2014	Started	
Unit 1 Implementation Outage	November 2014	Not Started	
Unit 2 Design Engineering	December 2014	Started	
Unit 2 Implementation Outage	May 2015	Not Started	

Milestone	Target Completion Date	Activity Status	Revised Target Completion Date
<b>Storage:</b>			
Storage Design Engineering	December 2013	Started	
Storage Implementation	December 2014 Unit 1 July 2015 Unit 2	Not Started	November 2014 Common Bldg.
<b>FLEX Equipment:</b>			
Procure On-Site Equipment	June 2014	Started	
Develop Strategies with Regional Response Center	May 2014	Not Started	
Install Off-Site Delivery Station (if Necessary)	November 2014	Not Started	
<b>Procedures:</b>			
PWROG issues NSSS-specific guidelines	November 2014	Started	
Create Site-Specific FLEX Support Guidelines (FSGs) – Unit 1	September 2014	Started	
Create Site-Specific FSGs – Unit 2	September 2014	Started	February 2015
Create Maintenance Procedures	August 2014	Not Started	
<b>Training:</b>			
Develop Training Plan	March 2014	Started	
Training Complete	September 2014	Not Started	
Unit 1 FLEX Implementation	November 2014	Not Started	
Unit 2 FLEX Implementation	April 2015	Not Started	
Full Site FLEX Implementation	April 2015	Not Started	
Submit Completion Report	August 2015	Not Started	

**4. Changes to Compliance Method**

There is one change to the compliance method as documented in the OIP (Reference 1). CNP will store phase 2 portable equipment in a single building qualified to withstand the postulated events for which the equipment will be needed. The initial submittal indicated by schedule that there would be a storage building for each unit.

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

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

## 6. Open Items from Overall Integrated Plan and Draft Safety Evaluation

The following tables provide a summary of the open items documented in the OIP or the Draft Safety Evaluation (SE) and the status of each item.

Pending Action	Overall Integrated Plan Open Item	Status
1	Completion of FLEX equipment storage facilities.	In Progress
2	Perform final validation of timing requirement to route alternate suction source to Turbine Driven Auxiliary Feed Water (TDAFW) pump.	Not Started
3	Implement administrative controls program for FLEX related equipment.	Not Started
4	A systematic approach to training will be used to evaluate training requirements for station personnel based upon changes to plant equipment, implementation of FLEX portable equipment, and new or revised procedures that result from implementation of the FLEX strategies.	In Progress
5	Complete detailed load shedding and battery duration analysis of Train A and Train B 250 Vdc batteries to validate final FLEX implementation strategy, including required procedure changes.	Not Started
6	Modification to TDAFW pump suction piping from Essential Service Water system to provide connection point from the discharge of the fire water pumps.	In Progress
7	Complete detailed load shedding and battery duration analysis of N-Train battery to validate final FLEX implementation strategy, including required procedure changes.	Not Started
8	Develop FSGs and associated procedure revisions to implement FLEX mitigation strategies.	In Progress
9	Modify the fire protection header inside the Turbine Building to provide an adequately sized connection to enable transfer of water to Auxiliary Feedwater pump suction.	In Progress
10	Permanent nitrogen bottle racks will be installed near each SG PORV operating station with hose and regulators to align for control to remain available in the control room.	In Progress
11	Modification to connect portable diesel generator to 600 Vac bus 11B [11D] and 21B [21D].	In Progress
12	Modification to connect portable diesel generator to CRP-3	In Progress
13	Modification to connect portable diesel generator to MCC ABD-B to provide alternate power supply to N-Train battery charger.	In Progress

<b>Pending Action</b>	<b>Overall Integrated Plan Open Item</b>	<b>Status</b>
14	Modification for hose connection of all main Feed Water line flow nozzle inspection port flanges located near B.5.b connection.	In Progress
15	4160 Vac bus T11A/D (T21A/D) will be modified to allow connection of external 4160 Vac three-phase portable diesel generator.	In Progress
16	Replace Reactor Coolant Pump seals with Westinghouse SHIELD low leakage seals.	In Progress
17	Modification adding connection point for portable electric pump to the safety-related 600 Vac buses (e.g., 11B and 11D (21B and 21D)) for the portable boron addition pump.	In Progress
18	Modify monitor tanks installing temporary hose connections.	In Progress
19	A transfer switch will be installed in the feeder cable between 600 Vac bus 11D and MCC AB-C to provide power to CVCS holdup tank recirculation pump to facilitate water transfers.	In Progress
20	Perform containment analysis to validate that containment integrity can be maintained until containment cooling can be restored during Phase 3.	In Progress
21	Modify Chemical and Volume Control System (CVCS) cross-tie to allow connection of portable boron addition pump.	In Progress
22	Modify the fire test header inside the Fire Pump House to allow for the hose connection.	In Progress
23	Modify the boric acid transfer pump suction header to add a branch connection with quick disconnect fittings.	In Progress
24	Modify the boric acid transfer pump discharge header to add a branch connection with quick disconnect fittings.	In Progress
25	Install standpipe from the 609 ft. elevation in the Auxiliary Building crane bay just inside the personnel door near the roll-up door through a stairwell to the overhead of the 587 ft. elevation to a location near the charging pump room entries.	In Progress
26	Fuel consumption will be finalized when equipment has been procured and tested.	Not Started
27	Perform calculation to verify time required to establish flow to the Reactor Coolant System in MODE 6 with the Rx Cavity filled.	Not Started
28	Modify vent connection downstream of the boron injection tanks for portable pump connection.	In Progress

<b>Draft Safety Evaluation Open Item</b>	<b>Status</b>
None	

## **7. Potential Draft Safety Evaluation Impacts**

CNP has not yet received a Draft Safety Evaluation; therefore, no potential impacts can be determined.

## **8. References**

The following references support the updates to the OIP described in this attachment.

1. I&M'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 27, 2013 (AEP-NRC-2013-13).
2. NRC Order Number EA-12-049, "Order Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events," dated March 12, 2012.