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LIC-15-0098  
August 27, 2015

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

Fort Calhoun Station, Unit No. 1  
Renewed Facility Operating License No. DPR-40  
NRC Docket No. 50-285

Subject: Omaha Public Power District'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

References: See Page 3

On March 12, 2012, the Nuclear Regulatory Commission (NRC) issued an Order (Reference 1) to all power reactor licensees and holders of construction permits in active or deferred status. The Order was effective immediately and required the Omaha Public Power District (OPPD) 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-basis external event (BDBEE). Specific requirements are described in Attachment 2 of the Order.

Pursuant to Section IV, Condition C.2 of the Order, licensees are to provide a status report at six-month intervals following submittal of the Overall Integrated Plan (OIP), which OPPD submitted on February 28, 2013 (Reference 4). In February 2015, OPPD provided the fourth six-month status report (Reference 8) describing progress made in implementing the requirements of the Order; this letter provides the fifth six-month status report.

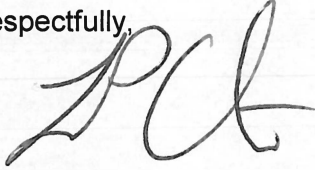
The OIP (Reference 4) and subsequent six-month status reports (i.e., References 5 through 8) were prepared utilizing NEI guidance (Reference 2) as endorsed with exceptions and clarifications by the NRC in Reference 3.

There are no regulatory commitments contained in this submittal.

If you should have any questions regarding this submittal, please contact Mr. Bill R. Hansher at (402) 533-6894.

I declare under penalty of perjury that the foregoing is true and correct. Executed on August 27, 2015.

Respectfully,

A handwritten signature in black ink, appearing to read 'LPC', written over a horizontal line.

Louis P. Cortopassi  
Site Vice President and CNO

LPC/JKG/mle

Enclosure: Fifth Six-Month Status Report for the Implementation of Order EA-12-049

- c: B. W. Sheron, Director of Office of Nuclear Reactor Regulation
- M. L. Dapas, NRC Regional Administrator, Region IV
- C. F. Lyon, NRC Senior Project Manager
- M. A. Brown, NRC Project Manager
- S. M. Schneider, NRC Senior Resident Inspector

### References

1. 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 (ML12054A736) (NRC-12-0020)
2. Nuclear Energy Institute (NEI) 12-06, "Diverse and Flexible Coping Strategies (FLEX) Implementation Guide," Revision 0, dated August 2012 (ML12242A378)
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 External Events," Revision 0, dated August 29, 2012 (ML12229A174)
4. Letter from OPPD (L. P. Cortopassi) to NRC (Document Control Desk), "Omaha Public Power District'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 (ML13064A298) (LIC-13-0019)
5. Letter from OPPD (L. P. Cortopassi) to NRC (Document Control Desk), "Omaha Public Power District'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," dated August 28, 2013 (ML 13268A075) (LIC-13-0123)
6. Letter from OPPD (L. P. Cortopassi) to NRC (Document Control Desk), "Omaha Public Power District's Second 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," dated February 24, 2014 (ML14055A412) (LIC-14-0021)
7. Letter from OPPD (E. D. Dean) to NRC (Document Control Desk), "Omaha Public Power District's Third 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," dated August 27, 2014 (ML14239A679) (LIC-14-0108)
8. Letter from OPPD (E. D. Dean) to NRC (Document Control Desk), "Omaha Public Power District's Fourth 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," dated February 27, 2015 (ML15058A679) (LIC-15-0032)

## **Fort Calhoun Station, Unit No. 1**

### **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**

The Omaha Public Power District (OPPD) developed an Overall Integrated Plan (Reference 1)<sup>1</sup> documenting the diverse and flexible strategies (FLEX), in response to Reference 2. This enclosure and its attachments provide an update of milestone accomplishments since submittal of the Overall Integrated Plan, including any changes to the compliance method, schedule, or need for relief/relaxation and the basis, if any.

#### **2 Milestone Accomplishments**

- Control Room Heatup Calculation and Water Quality Evaluations are complete.
- FLEX Support Guideline Basis Documents and Executive volume have been issued.
- Draft Lower Mode FLEX Support Guidelines have been issued.
- Beyond-Design-Basis (BDB) Flooding Strategy has been established for all potential flooding elevations.

#### **3 Milestone Schedule Status**

Attachment 1 contains an update to the Milestone Schedule (Reference 1, Enclosure, Attachment 2) provided with the Overall Integrated Plan. The status of each milestone is shown, as are revised completion dates. The dates are planning dates subject to change as design and implementation details are developed. Attachment 1 is formatted to align with the table provided in the Nuclear Energy Institute's (NEI) Six-Month Status Report Template and supersedes the Milestone Schedule provided by Reference 1.

The evaluation of FLEX modifications is complete. All modification design packages are now scheduled for completion prior to January 31, 2016, except for the design of the water supply well, which has been deferred (see section 4 for details on this decision). Development of the SAFER Response Plan is in progress, but completion is not expected until late 2015, as National SAFER Response Center (NSRC) resources are currently being directed towards plants implementing in the fall of 2015. The revised completion dates do not impact the implementation date of the Order.

#### **4 Changes to Compliance Method**

There are no changes to the overall compliance method as documented in the Fort Calhoun Station Overall Integrated Plan (Reference 1). The results of the control room heatup calculation (see Overall Integrated Plan Open Item #2 in Section 6, below) show that control room cooling will not be required for a significantly longer period of time than was assumed in the Overall Integrated Plan timeline. OPPD is evaluating the method that will be used to

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<sup>1</sup> Documents referenced in this enclosure are listed in Section 8.

establish cooling to the control room and will provide an update to the strategy in a future 6-month update.

As discussed in previous 6-month updates, OPPD has developed an interim strategy to address BDB flooding. This strategy is similar to that described in Reference 1, Enclosure, Appendix B, Action 24, but involves a slightly different portable equipment configuration to accommodate issues not yet addressed by FLEX modifications. The interim equipment and strategies will be incorporated into the FLEX Overall Integrated Plan. Certain modifications are being developed to improve protection and deployment of the flood mitigation equipment. Once those modifications are approved, OPPD will describe the integration of the interim flood strategy into the Overall Integrated Plan in a future six-month update.

In previous 6-month updates, OPPD stated that a well would be installed as a source of makeup water redundant to the ultimate heat sink (UHS). It has been determined that since the primary purpose of installing a well is to provide a reliable source of makeup water following a BDB flood, installation will be evaluated as part of the Mitigating Strategies Assessment scheduled for December 2016 as outlined in Enclosure 1 to COMSECY-15-0019. To address the removal of the well pump as a redundant means of providing makeup water, an additional portable pump would be procured to provide "N+1" components for providing makeup water from the UHS. This potential change in makeup strategy is reflected in Attachment 2 of this enclosure.

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

OPPD expects to comply with the Order's 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 Overall Integrated Plan (Reference 1) or the Draft Safety Evaluation (SE) and the status of each item.

Overall Integrated Plan Open Item	Status
1. Communicate exceptions related to Site Security Plan or Other License requirements	Not Started
2. Complete Control Room Heatup Calculation	Complete
3. Complete Reactor Coolant System (RCS) Makeup Evaluation with Reactor Coolant Pump (RCP) Controlled Bleed-off (CBO) Modification	Started
4. Develop Playbook	Started
5. Complete Water Chemistry Impact Analysis and review impact on the strategies	Complete
6. Complete Core Uncovery Time Evaluation with RCP CBO Isolation. (This is subtask of Open Item #3.)	Started
7. Evaluate Auxiliary Building Ventilation Requirements with Spent Fuel Pool (SFP) Evaporation	Started

8. Evaluate Environmental Conditions after Extended Loss of AC Power (ELAP) in critical FLEX deployment areas	Started
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<b>Draft Safety Evaluation Open Item</b>	<b>Status</b>
Interim Staff Evaluation (ISE) received on February 27, 2014 (Reference 3).	Attachment 2 of this enclosure describes the status of the Open Items and Confirmatory Items from the ISE.

## 7 Potential Draft Safety Evaluation Impacts

There are no potential impacts to the Draft Safety Evaluation identified at this time.

## 8 References

The following references support the updates to the Overall Integrated Plan described in this enclosure.

1. Letter from OPPD (L. P. Cortopassi) to NRC (Document Control Desk), "Omaha Public Power District'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 (ML13064A298), (LIC-13-0019)
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 (ML12054A736), (NRC-12-0020)
3. Letter from NRC (J. S. Bowen) to L. P. Cortopassi (OPPD), "Fort Calhoun Station, Unit 1 - Interim Staff Evaluation Relating to Overall Integrated Plan in Response to Order EA-12-049 (Mitigation Strategies) (TAC NO. MF0969)," dated February 27, 2014 (ML14007A693) (NRC-14-0014)
4. Letter from OPPD (L. P. Cortopassi) to NRC (Document Control Desk), "Response to Request for Information Regarding Flooding Aspects of Recommendation 2.1 of the Near-Term Task Force Review of Insights from the Fukushima Dai-ichi Accident- Fort Calhoun Station Flood Hazard Reevaluation Report," dated February 4, 2015 (LIC-15-0015)

- Attachments: 1. FLEX Overall Integrated Implementation Plan Milestone Schedule, Revision 5  
2. Status of Interim Staff Evaluation Open Item / Confirmatory Items

**Fort Calhoun Station EA-12-049 (FLEX) Overall Integrated Implementation Plan**

**Milestone Schedule  
 Revision 5**

The following milestone schedule is provided. The dates are planning dates subject to change as design and implementation details are developed. Any changes to the following target dates will be reflected in subsequent 6-month status reports.

<b>Milestone</b>	<b>Target Completion Date</b>	<b>Activity Status</b>	<b>Revised Target Completion Date</b>
Submit 60-Day Status Report	Oct. 2012	Complete	
Submit Overall Integrated Plan	Feb. 2013	Complete	
<b>Submit 6-Month Updates:</b>			
Update 1	Aug. 2013	Complete	
Update 2	Feb. 2014	Complete	
Update 3	Aug. 2014	Complete	
Update 4	Feb. 2015	Complete	
Update 5	Aug. 2015	Complete	
Update 6	Feb. 2016	Not Started	
Update 7	Aug. 2016	Not Started	
FLEX Strategy Evaluation	Apr. 2015	Complete	
Walk-throughs or Demonstrations	Nov. 2016	Not Started	
Perform Staffing Analysis	Sep. 2015	Not Started	Mar. 2016
<b>Modifications:</b>			
Modifications Evaluation	Apr. 2015	Complete	
Design Engineering	Aug 2015	Started	
Implementation Outage	Oct. 2016	Not Started	
<b>Storage:</b>			
Storage Design Engineering	Oct. 2015	Started	
Storage Implementation	Apr. 2016	Not Started	
<b>FLEX Equipment:</b>			
Procure On-Site Equipment	Mar. 2016	Started	
Develop Strategies with RRC	Mar. 2015	Started	Nov. 2015
Install Off-Site Delivery Station (if Necessary)	Not planned at this time	Not planned at this time	
<b>Procedures:</b>			
PWROG issues NSSS-specific guidelines	Jun. 2014	Complete	
Create Site-Specific FSGs	Dec. 2015	Started	
Create Maintenance Procedures	Jun. 2016	Started	
<b>Training:</b>			
Develop Training Plan	Apr. 2015	Complete	
Training Complete	Sep. 2016	Started	
Full Site FLEX Implementation	Oct. 2016	Started	
Submit Completion Report	Dec. 2016	Not Started	

**Status of Interim Staff Evaluation Open Item / Confirmatory Items**

**OPEN ITEMS**

<b>Item #</b>	<b>NRC Ref. #</b>	<b>Description</b>	<b>Status August 2015 Update</b>
1	3.2.1.6.B	Sequence of Events (SOE) - Confirm whether the CENTS code ELAP reanalysis reflecting the CBO isolation modification affected the SOE timeline, and if so, that the SOE timeline has been updated and the overall FLEX mitigation strategies reflect these results.	IN PROGRESS Plant specific Nuclear Steam Supply System (NSSS) and Containment ELAP evaluations have been performed, reflecting the CBO isolation modification. The results support the predictions on the SOE timeline stated in the OIP. The evaluations also provide documentation to support several ISE confirmatory items. These evaluations are currently in the owner's review and approval cycle. When the evaluations are approved, the SOE will be updated to support the FCS FLEX mitigation strategy timing. Answers to the associated Confirmatory Items discussed in this attachment will be updated in a subsequent 6-month update.



**Status of Interim Staff Evaluation Open Item / Confirmatory Items**

**CONFIRMATORY ITEMS**

<b>Item #</b>	<b>NRC Ref. #</b>	<b>Description</b>	<b>Status August 2015 Update</b>
1	3.1.1.1.A	Protection of FLEX equipment (seismic hazard) - Confirm that all FLEX equipment stored in the auxiliary building and the new FLEX Support Building (FSB) are seismically restrained to ensure equipment is not damaged during a seismic event and that the FLEX equipment is not damaged by non-seismically robust equipment due to seismic interactions.	IN PROGRESS Expect completion of design documentation by February 2016 update. Expect completion of building and placement of FLEX equipment by August 2016 update.
2	3.1.1.2.A	Deployment of FLEX equipment (seismic hazard) - Confirm that deployment pathways for the FLEX portable equipment are not susceptible to soil liquefaction.	IN PROGRESS Expect completion of design documentation by February 2016 update. Expect completion of building and placement of FLEX equipment by August 2016 update.
3	3.1.1.3.A	Procedural Interfaces (seismic) - Confirm the licensee develops (1) methods and locations for alternate monitoring of key parameters; (2) guidance on critical actions to perform until alternate indications can be obtained; and (3) guidance on control of critical equipment without control power.	IN PROGRESS A facility modification is being developed to support alternate monitoring locations for critical parameters. The design is expected to be complete by October 1, 2015, and drafts of the associated guidance documentation will be complete by December 2015. These actions will be documented in the February 2016 update. The modification will be installed during the 2016 refueling outage and associated guidance documents will be validated as part of the modification installation process.

**Status of Interim Staff Evaluation Open Item / Confirmatory Items**

<b>Item #</b>	<b>NRC Ref. #</b>	<b>Description</b>	<b>Status August 2015 Update</b>
4	3.1.1.4.A	Off-site Resources - Confirm the location of the off-site staging area(s) and acceptability of the access routes considering the seismic, flooding, high wind, snow, ice and extreme cold hazard.	IN PROGRESS Expect completion of the "SAFER Response Plan" by February 2016 update.
5	3.1.2.2.A	Deployment (flood) - Confirm the method of accessing the ultimate heat sink (UHS), the Missouri River, using FLEX equipment during high river levels or after flood waters inundate the site up to the current design basis flood elevation of 1014 foot elevation is addressed. The plan does not identify the deployed location of the fire truck or river drafting pump nor how they are accessed and monitored by plant operators, considering the site's flooded condition.	IN PROGRESS Previously, OPPD had specified that a well would be relied upon to provide makeup water in all flood scenarios, both within and beyond-design basis. OPPD is now considering the option of using a well only for BDB flooding scenarios. If that option is exercised a strategy will be developed to pre-stage pumping equipment within the plant, either behind flood barriers or at a high enough elevation to protect them from flood waters (adequate time exists in design basis flooding scenarios to pre-stage equipment). Submersible pumps may also be used. Final determination of the makeup water pumping configuration will be provided in the February 2016 update.
6	3.1.3.1.A	Protection of FLEX Equipment (high wind hazard) - Confirm the design code used for the FSB for the high wind hazard and the method of protection of the N+1 FLEX equipment from tornado borne missiles is acceptable.	IN PROGRESS Expect completion of design documentation by February 2016 update. Expect completion of building by August 2016 update.

**Status of Interim Staff Evaluation Open Item / Confirmatory Items**

<b>Item #</b>	<b>NRC Ref. #</b>	<b>Description</b>	<b>Status</b> <b>August 2015 Update</b>
7	3.2.1.1.A	CENTS - Confirm that the use of CENTS in the ELAP analysis for FCS is limited to the flow conditions before reflux boiling initiates. This includes providing a justification for how the initiation of reflux boiling is defined. Confirm that the reanalysis for the case with the CBO isolated conforms to the above limitations.	IN PROGRESS Documentation of application of CENTS limitations regarding reflux boiling is specifically addressed in the NSSS timing analysis performed to address Open Item #1.
8	3.2.1.2.B	RCP Seal Leakage Rates - Confirm the selection and justification for the seal leakage rates assumed in the ELAP analysis from the initiation of the ELAP event to the time frame when subcooling in the RCS cold legs decreases to less than 50 degrees F. Confirm the calculated maximum temperature and pressure, and minimum subcooling in the RCS cold legs during the ELAP before isolation of the CBO. Confirm the seal leakage rates per RCP before and after isolation of the CBO used in the ELAP reanalysis for determination of the SOE and associated time limes.	IN PROGRESS Documentation of the effects of isolation of CBO on RCS leak rates is specifically addressed in the NSSS timing analysis performed to address Open Item #1.
9	3.2.1.3.A	Decay Heat - Confirm the key physics parameters used for each of the decay heat evaluation scenarios to ensure that the FCS ELAP response is conservative relative to the ANS standard.	IN PROGRESS Documentation of the validity of the design inputs is provided in the NSSS timing analysis performed to address Open Item #1.
10	3.2.1.4.A	Initial Values for Key Plant Parameters and Assumptions - Confirm which inputs and assumptions are appropriate relative to being plant specific or derived from WCAP-17601-P.	IN PROGRESS Documentation of the validity of the design inputs and assumptions is provided in the NSSS timing analysis performed to address Open Item #1.

**Status of Interim Staff Evaluation Open Item / Confirmatory Items**

<b>Item #</b>	<b>NRC Ref. #</b>	<b>Description</b>	<b>Status August 2015 Update</b>
11	3.2.1.5.A	Monitoring Instrumentation and Controls - Confirm suitability of emergency feedwater storage tank (EFWST) level monitoring instrumentation considering the environmental conditions in the auxiliary building following an ELAP event.	IN PROGRESS  The ability to monitor EFWST level locally will be addressed as part of the alternate monitoring locations conceptual design discussed in Confirmatory Item #3.
12	3.2.1.5.B	Monitoring Instrumentation and Controls - Confirm suitability of existing or replacement safety injection tank (SIT) level instrumentation considering the environmental conditions in the containment following an ELAP event.	IN PROGRESS  Environmental conditions inside containment following an ELAP event have been established as part of the NSSS analysis conducted to address Open Item #1. The evaluation shows that the current instrumentation will continue to operate in the predicted environment (ELAP containment response does not exceed design conditions for over 30 days). Further, the NSSS analysis shows that SIT level indication is not necessary to determine when closure of the SIT isolation valves is necessary.

**Status of Interim Staff Evaluation Open Item / Confirmatory Items**

<b>Item #</b>	<b>NRC Ref. #</b>	<b>Description</b>	<b>Status August 2015 Update</b>
13	3.2.1.8.A	Core Sub-Criticality - Confirm that the reanalysis discussed in Confirmatory Item 3.2.1.1.A continues to align with the generic resolution for boron mixing under natural circulation conditions potentially involving two-phase flow, in accordance with the Pressurized-Water Reactor Owners Group position paper, dated August 15, 2013 (ADAMS Accession No. ML 13235A135 (nonpublic for proprietary reasons)), and subject to the conditions provided in the NRC endorsement letter dated January 8, 2014 (ADAMS Accession No. ML 13276A183) following SOE and FLEX mitigation strategy impacting changes.	IN PROGRESS Documentation of the validity of the boron-mixing model during natural circulation conditions is provided in the NSSS timing analysis performed to address Open Item #1.
14	3.2.4.1.A	Equipment Cooling (Water) - Confirm installed charging pumps can operate during an ELAP considering the loss of support equipment.	IN PROGRESS Expect completion to be documented in February 2016 update.
15	3.2.4.2.A	Equipment Cooling (Ventilation) - Confirm that the licensee addresses environmental conditions in the vicinity of and access to all deployed FLEX equipment in the auxiliary building, to ensure continuous equipment operation and acceptable human performance.	IN PROGRESS A GOTHIC analysis of post-ELAP conditions in the auxiliary building (all FLEX equipment is currently being performed. Expect completion to be documented in February 2016 update.

**Status of Interim Staff Evaluation Open Item / Confirmatory Items**

<b>Item #</b>	<b>NRC Ref. #</b>	<b>Description</b>	<b>Status August 2015 Update</b>
16	3.2.4.2.B	Equipment Cooling (Ventilation) - Confirm that the licensee addresses environmental conditions in the main control room (CR) and the need for ventilation prior to re-establishing power to the CR ventilation fans using the FLEX DG at approximately 9 hours after the ELAP as indicated on the SOE timeline.	<p>IN PROGRESS</p> <p>A control Room Heatup GOTHIC calculation has been completed that shows CR cooling is not required until 46 hours post-ELAP. The plant modification for re-powering the 480VAC electrical buses (EC 60820) includes the strategy for re-powering a CR air conditioning unit within that timeframe. The CR cooling units meet the robustness requirements for installed plant equipment. Expect completion of the modification design to re-power 480VAC electrical buses to be completed by November 2015.</p>
17	3.2.4.2.C	Equipment Cooling (Ventilation) - Confirm the acceptability of the battery room temperatures (extreme hot or extreme cold) on battery performance.	<p>IN PROGRESS</p> <p>A GOTHIC analysis of post-ELAP conditions in the auxiliary building (all FLEX equipment is deployed in the Auxiliary Building) is currently being performed. Expect completion to be documented in February 2016 update.</p>
18	3.2.4.2.D	Equipment Cooling (Ventilation) - Confirm the acceptability of the hydrogen buildup in the battery room during charging.	<p>IN PROGRESS</p> <p>The plant modification for re-powering the 480VAC electrical buses (EC 60820) includes the strategy to re-power a battery room exhaust fan prior to re-charging the battery. Expect completion of the modification design to re-power 480VAC electrical buses to be completed by November 2015.</p>

**Status of Interim Staff Evaluation Open Item / Confirmatory Items**

<b>Item #</b>	<b>NRC Ref. #</b>	<b>Description</b>	<b>Status August 2015 Update</b>
19	3.2.4.4.A	Lighting - Confirm the lighting provisions for all areas within the auxiliary building where FLEX equipment is deployed as well as the outdoor areas where FLEX equipment is deployed.	IN PROGRESS Expect completion to be documented in February 2016 update.
20	3.2.4.4.B	Communications - Confirm that upgrades to the site's communications systems have been completed.	IN PROGRESS Expect completion to be documented in February 2016 update.
21	3.2.4.5.A	Protected and Internal Locked Area Access - Confirm how the provisions for access to protected areas and internally locked areas are incorporated into the FLEX mitigation strategies.	IN PROGRESS Expect completion to be documented in February 2016 update.
22	3.2.4.7.A	Water Sources - Confirm that the licensee addresses the impacts of water chemistry from the various onsite sources for potential use in FLEX strategy installed and portable equipment.	COMPLETE A water chemistry evaluation (SL-011688, "Evaluation of Alternate Cooling Water Sources for Use in Mitigating a Beyond Design Basis External Event") was conducted to determine the viability of existing water sources to support FLEX makeup needs regarding maintenance of heat transfer and corrosion resistance. FLEX strategies use insights from this report to prioritize water sources and determine when and how to utilize Regional Response Center equipment.

**Status of Interim Staff Evaluation Open Item / Confirmatory Items**

<b>Item #</b>	<b>NRC Ref. #</b>	<b>Description</b>	<b>Status August 2015 Update</b>
23	3.2.4.8.A	Electrical Power Sources - Confirm the technical basis for the selection and size of the FLEX generators to be used in support of the coping strategies and the planned approach for fault protection and electrical separation between existing power sources and the FLEX power sources.	IN PROGRESS  The plant modification for re-powering the 480VAC electrical buses (EC 60820) includes evaluation of necessary loads, supporting the selection and size of the FLEX generators to be used in support of the coping strategies. The planned approach for fault protection and electrical separation between existing power sources and the FLEX power sources is also included in this modification. Expect completion of the modification design to re-power 480VAC electrical buses to be completed by November 2015.
24	3.2.4.9.A	Portable Equipment Fuel - Confirm the total fuel consumption needs when FLEX equipment designs are finalized.	IN PROGRESS  Expect completion to be documented in February 2016 update.



**Status of Interim Staff Evaluation Open Item / Confirmatory Items**

<b>Item #</b>	<b>NRC Ref. #</b>	<b>Description</b>	<b>Status August 2015 Update</b>
25	3.2.4.10.A	Load Reduction to Conserve DC Power - Confirm if the non-1E battery modification becomes a plan revision to extend the battery life of the existing Class 1 E batteries and that any changes to the FLEX mitigation strategies have been incorporated.	ON HOLD  OPPD has evaluated the ELAP capabilities of current class 1E DC batteries, along with other applications requiring portable generators to support FLEX strategies and has concluded that restoration of power to a battery charger prior to depletion of the current batteries provides more benefits than adding a non-1E battery to increase the depletion time on the 1E batteries. OPPD has placed this modification on hold pending the completion of the design for EC 60820, "2016 RFO Electrical Connections – FLEX." Once the successful design of the FLEX electrical distribution strategy is assured, OPPD will cancel the non-1E battery modification and this item will be marked as "CLOSED."
26	3.3.1.A	Use of Portable Pumps - Confirm that the number of FLEX pumping equipment for accessing the UHS during the Phase 2 coping strategies meets the spare (N+1) capability. One fire truck and two river drafting pumps are provided to access the UHS. Confirm whether the river drafting pumps alone can achieve the mitigation strategy objectives (without the use of the fire truck) during both the flooded and non-flooded site conditions. Alternately, confirm implementation of a qualified well as a diverse alternate source of a long term water supply.	IN PROGRESS  Previously, OPPD had specified that a well would be available as a diverse means of supplying makeup water in all scenarios, including beyond-design basis. OPPD is now considering the option of using a well only for BDB flooding scenarios. If the option is exercised, additional pumping units will be added as necessary to assure N+1 is achieved for pumping of makeup water from the UHS. Final determination of the makeup water-pumping configuration will be provided in the February 2016 update.

**Status of Interim Staff Evaluation Open Item / Confirmatory Items**

<b>Item #</b>	<b>NRC Ref. #</b>	<b>Description</b>	<b>Status August 2015 Update</b>
27	3.4.A	Off-Site Resources - Confirm how conformance with NEI 12-06, Section 12.2 guidelines 2 through 10 will be met.	IN PROGRESS Expect completion of the SAFER Response Plan by February 2016 update.