

CENG

a joint venture of



August 27, 2013

U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

ATTENTION: Document Control Desk

SUBJECT: Calvert Cliffs Nuclear Power Plant, Units 1 and 2
Renewed Facility Operating License Nos. DPR-53 and DPR-69
Docket Nos. 50-317 and 50-318
R.E. Ginna Nuclear Power Plant
Renewed Facility Operating License No. DPR-18
Docket No. 50-244
Nine Mile Point Nuclear Station, Units 1 and 2
Renewed Facility Operating License Nos. DPR-63 and NPF-69
Docket Nos. 50-220 and 50-410

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)

- REFERENCE:**
- (a) 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 (ML12054A735)
 - (b) Letter from M. G. Korsnick (CENG) to Document Control Desk (NRC), Overall Integrated Plan for Mitigation Strategies for Beyond-Design-Basis External Events, dated February 28, 2013 (ML13066A171)
 - (c) Letter from M. G. Korsnick (CENG) to Document Control Desk (NRC), Supplement to Overall Integrated Plan for Mitigation Strategies for Beyond-Design-Basis External Events, dated March 8, 2013 (ML13074A056)
 - (d) NEI 12-06, Diverse and Flexible Coping Strategies (FLEX) Implementation Guide, Revision 0, dated August 2012 (ML12242A378)
 - (e) 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)
 - (f) Letter from M.G. Korsnick (CENG) to Document Control Desk (NRC), Response to NRC Letter on Technical Issues for Resolution Regarding Communications Submittals Associated with Near Term Task Force Recommendation 9.3, dated February 22, 2013

A151
NRR

On March 12, 2012, the Nuclear Regulatory Commission (NRC) issued Order EA-12-049 (Reference a) to Constellation Energy Nuclear Group, LLC (CENG) for Calvert Cliffs Nuclear Power Plant, LLC (CCNPP), R.E. Ginna Nuclear Power Plant, LLC (Ginna), and Nine Mile Point Nuclear Station, LLC, (NMPNS) Units 1 (NMP1) and 2 (NMP2). Reference (a) was immediately effective and directed CCNPP, Ginna, and NMPNS to develop, implement, and maintain guidance and strategies to maintain or restore core cooling, containment, and spent fuel cooling capabilities in the event of a beyond-design-basis external event. Specific requirements are outlined in Attachment 2 of Reference (a).

Reference (a) required submission of an overall integrated plan (OIP) pursuant to Section IV, Condition C.1.a. Reference (b) provided the CCNPP, Ginna, and NMPNS OIPs. Reference (c) provided a supplement to the CCNPP, Ginna, and NMPNS OIPs, and superseded Reference (b).

Reference (a) requires submission of a status report at six-month intervals following submittal of the overall integrated plan. Reference (d) provides direction regarding the content of the status reports, and was endorsed by the NRC in Reference (e). Reference (f) includes a commitment from CENG to provide status of the implementing actions identified in Section 4.12 of each communications assessment as part of the six month status reports required by Section IV.C.2 of Reference (a). The purpose of this letter is to provide the first six-month status report pursuant to Section IV, Condition C.2, of Reference (a) that delineates progress made in implementing the requirements of Reference (a). Attachments (1) through (4) provide the 6-Month Status Reports for CCNPP, Ginna, NMP1, and NMP2, respectively. These reports update the milestone accomplishments since the submittal of the overall integrated plans, including any changes to the compliance method, schedule, or need for relief and the basis, if any.

This letter contains no new regulatory commitments.

If there are any questions concerning this letter, please contact Everett (Chip) Perkins at everett.perkins@cengllc.com or 410-470-3928.

I declare under penalty of perjury that the foregoing is true and correct. Executed on August 27, 2013.

Sincerely,



EDD/STD

- Attachments:
- (1) CCNPP 6-Month Status Report for Mitigation Strategies for Beyond-Design-Basis External Events
 - (2) Ginna 6-Month Status Report for Mitigation Strategies for Beyond-Design-Basis External Events
 - (3) NMP1 6-Month Status Report for Mitigation Strategies for Beyond-Design-Basis External Events
 - (4) NMP2 6-Month Status Report for Mitigation Strategies for Beyond-Design-Basis External Events

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NRC Project Manager, Ginna
NRC Project Manager, Nine Mile Point
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CCNPP File 36.11
CCNPP Electronic Docket File
NMP1L2832
Fleet Licensing Letter 13-038

REGULATORY COMMITMENTS IDENTIFIED IN THIS CORRESPONDENCE:
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None

Posting Requirements for Responses -- NOV/Order **No**

ATTACHMENT (1)

**CCNPP 6-MONTH STATUS REPORT FOR MITIGATION STRATEGIES
FOR BEYOND-DESIGN-BASIS EXTERNAL EVENTS**

ATTACHMENT (1)
CCNPP 6-MONTH STATUS REPORT
FOR MITIGATION STRATEGIES FOR BEYOND-DESIGN-BASIS EXTERNAL EVENTS

1 Introduction

The Calvert Cliffs Nuclear Power Plant, LLC (CCNPP) Overall Integrated Plan (OIP) was submitted to the Nuclear Regulatory Commission (NRC) in February 2013 (Reference 1), documenting the diverse and flexible strategies (FLEX), in response to Reference 2. Subsequently, a supplement to the CCNPP OIP for FLEX was submitted to the NRC in March 2013 (Reference 3). This attachment provides an update of milestone accomplishments since submittal of the OIP, including any changes to the compliance method, schedule, or need for relief/relaxation and associated basis (if applicable).

CCNPP developed an Interim Action Implementation Schedule, as part of an Assessment of Communications during an Extended Loss of AC Power (ELAP) (Reference 4). A commitment was made in Reference 4 to include the status of the implementing actions identified in Section 4.12 of CCNPP's communications assessment as part of the six-month status reports prepared pursuant to Section IV.C.2 of NRC Order EA-12-049. The updated status of the communications assessment interim actions is provided in Section 8.

2 Milestone Accomplishments

The following milestones have been completed since the development of the OIP (References 1 and 3):

- Performed exploratory fluid system walk downs in support of pending modifications for FLEX strategies during spring 2013 Refueling Outage (RFO).
- Performed exploratory electrical system walk downs in support of pending modifications for FLEX strategies during spring 2013 RFO.
- Performed preliminary site walk downs in support of FLEX equipment deployment and storage strategies.

The status information is current as of July 15, 2013.

3 Milestone Schedule Status

Table 1 provides an update to Attachment 2 of the OIP (References 1 and 3). 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. Any changes to the following target dates will be reflected in the subsequent 6-month status reports.

The revised milestone target completion dates do not impact the order implementation date.

Walk-throughs or demonstrations encompassing all FLEX equipment points of connection/tie-ins for Phase 2 and Phase 3 strategies will be performed as presented in Table 1. A detailed schedule, including target dates, has not been developed.

ATTACHMENT (1)
CCNPP 6-MONTH STATUS REPORT
FOR MITIGATION STRATEGIES FOR BEYOND-DESIGN-BASIS EXTERNAL EVENTS

Table 1
Status of CCNPP FLEX OIP Milestones

Milestone	Target Completion Date	Activity Status	Revised Target Completion Date
Submit 60 Day Status Report	October 2012	Complete	
Submit Overall Integrated Implementation Plan	February 2013	Complete	
Commence Engineering and Design	November 2013	Started	
Commence Procurement of Equipment	June 2015	Started	U-2: January 2015 U-1: January 2016
Commence Installation of Equipment	March 2016	Started	
Submit 6-Month Status Report	August 2013	Complete	
Develop Modifications	October 2013	Not Started	June 2014
Develop Strategies/Contract with the Regional Response Center (RRC)	November 2013	Not Started	
Perform Staffing Analysis	January 2014	Not Started	October 2014
Submit 6-Month Status Report	February 2014	Not Started	
Complete Engineering and Design	March 2014	Not Started	
Create Maintenance and Testing Procedures	June 2014	Not Started	
Submit 6-Month Status Report	August 2014	Not Started	
Procedure Changes Training Material Complete	September 2014	Not Started	
Develop Training Plan	November 2014	Started	February 2014
Submit 6-Month Status Report	February 2015	Not Started	
Issue FLEX Support Guidelines (FSG)	March 2015	Not Started	

**ATTACHMENT (1)
CCNPP 6-MONTH STATUS REPORT
FOR MITIGATION STRATEGIES FOR BEYOND-DESIGN-BASIS EXTERNAL EVENTS**

**Table 1
Status of CCNPP FLEX OIP Milestones**

Milestone	Target Completion Date	Activity Status	Revised Target Completion Date
Unit 2 Modification Implementation Outage *	April 2015	Not Started	March 2015
Walk-throughs or Demonstrations	Unit 2: March 2015 Unit 1: March 2016	Not Started	
Implement Training	June 2015	Not Started	U-2: February 2015 U-1: February 2016
Submit 6-Month Status Report	August 2015	Not Started	
Complete Procurement of Equipment	August 2015	Not Started	January 2016
Submit 6-Month Status Report	February 2016	Not Started	
Unit 1 Modification Implementation Outage*	April 2016	Not Started	March 2016
Submit 6-Month Status Report	August 2016	Not Started	
Full compliance with EA-12-049 is achieved	November 2016	Not Started	
Submit Completion Report	December 2016	Not Started	

*(Full compliance after second listed refueling outage)

4 Changes to Compliance Method

Changes were made to the information provided in the OIP that do not change the compliance method with Nuclear Energy Institute (NEI) 12-06 (Reference 5).

The following is a list of the open items that have been deleted or completed, and of coping strategies that have been changed from the OIP with an explanation of the modifications:

ATTACHMENT (1)
CCNPP 6-MONTH STATUS REPORT
FOR MITIGATION STRATEGIES FOR BEYOND-DESIGN-BASIS EXTERNAL EVENTS

1. General Integrated Plan Elements Pressurized Water Reactor (PWR)

Open Item: Determine schedule for when Regional Response Centers will be fully operational

This open item is complete. The RRC will be fully operational for CCNPP on September 17, 2014.

2. Maintaining Core Cooling, PWR Installed Equipment Phase 1

Open Item: Evaluate the feasibility of the WCAP-17601-P recommendation to install a remotely operated Reactor Coolant Pump (RCP) Controlled Bleedoff (CBO) return line isolation valve.

This evaluation is no longer needed; thus, the open has been deleted. CCNPP employs Sulzer RCR875B-3V RCP seals. Per EOP-7 Technical Basis and the RCP seal manufacturer (Sulzer), bleedoff flow is desired to maintain seal integrity. If bleedoff flow is completely isolated, the vapor seal is subjected to full RCS pressure. Though this seal is designed to withstand system pressure for a limited time, it remains a severe operating condition. If the vapor seal fails, excessive RCS leakage would result.

3. Maintaining Core Cooling, PWR Installed Equipment Phase 1

Open Item: Implement a design change to install new leak-tight SIT vent SVs that will allow the vent line pipe caps to remain off.

New safety injection tank (SIT) vent valves were desired due to expected unavailability of power to operate the SIT motor operated valves (MOV) during extended loss of AC power (ELAP) conditions. However, three FLEX 480VAC Diesel Generator (DG) sets will be used to repower the buses providing power to the SIT MOVs, restoring functionality, and thus negating the need to add new SIT vent valves. This enhanced solution was developed after the OIP was submitted; thus, the open item has been deleted.

4. Maintaining Core Cooling, PWR Portable Equipment Phase 1

Open Item: Implement design changes to install “plug and play” protected hose connections for the portable alternate Auxiliary Feedwater (AFW) pump to AFW on the exterior of the Auxiliary Building west wall with piping run to the 27 ft. East Penetration Rooms to connect to the AFW to S/G headers.

This modification is being refined to utilize flexible hose for portions of the hard piping that was initially expected to connect on the exterior of the Auxiliary Building. CCNPP Units 1 and 2 each have two installed Turbine-Driven Auxiliary Feedwater (TDAFW) pumps. If the in-service pump fails during ELAP, the standby TDAFW pump can readily be placed in service. This feature of the AFW system affords additional time to connect the portable alternate AFW pump such that “plug and play” connections on the exterior west side of the Auxiliary Building are not needed. Personnel will have sufficient time to deploy hoses to newly installed, dedicated hose connections located on the east side of the 45 ft. elevation of the Auxiliary Building (with piping run to the 27 ft. East Penetration Rooms to connect to the AFW to S/G headers).

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The new wording of the open item is as follows:

Utilize flexible hose for portions of the hard piping that was initially expected to connect on the exterior of the Auxiliary Building, to connect hoses to newly installed, dedicated hose connections located on the east side of the 45 ft. elevation of the Auxiliary Building (with piping run to the 27 ft. East Penetration Rooms to connect to the AFW to S/G headers).

5. Maintaining Core Cooling, PWR Portable Equipment Phase 2

Open Item: Install a design change to replace the 2-1/2 inch hose connections with 4 inch hose connections at 11 and 21 Condensate Storage Tanks (CSTs), 11 Demineralized Water Storage Tank (DWST), and 11 and 12 Pretreated Water Storage Tanks (PWSTs).

This open item has been deleted. A trailer-mounted hose manifold will be utilized instead to ensure the FLEX portable pumps have an adequate suction supply. The purpose for the manifold is to allow multiple tanks to be connected to the pump.

6. Maintaining Core Cooling, PWR Portable Equipment Phase 2

Open Item: Perform an analysis to determine the seismic survivability of the wells as a long-term source of make-up water. Analysis should include any modifications needed to improve the survivability of the associated Well Water System piping and to provide 480 VAC power to the well pumps.

This analysis is no longer needed; thus, the open item has been deleted. The Ultimate Heat Sink (UHS) (i.e., Chesapeake Bay) can be used as a limitless source of cooling water. One of the portable FLEX pumps can be setup adjacent to the Circulating Water discharge structure with suction hose, placed into openings in the discharge structure (B.5.b pump setup location). The Circulating Water discharge structure is located at the (+) 10 ft. elevation just north of the Sewage Treatment Building. The FLEX pump will provide water to 12 CST via hoses run up to the 45 ft. elevation and to hose connections that will be installed on the CST.

7. Maintaining Core Cooling, PWR Portable Equipment Phase 2

Open Item: Implement a design change to install connection points, conduit, cabling, and transfer switches locally at the reactor Motor Controlled Centers (MCCs) to provide for direct connection from the FLEX 480 VAC DGs.

This open item has been deleted. This design change is no longer needed due to the proposed use of a modified breaker for the portable DG cable connections vice a modification to the MCC bus work.

8. Maintaining Core Cooling, PWR Portable Equipment Phase 2

Open Item: Perform an analysis to determine the long-term effect on the S/Gs from use of water from the UHS as a cooling medium.

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The evaluation is not needed. The Ultimate Heat Sink (UHS) will be used for cooling only after preferred sources of treated water are unavailable. FSGs will provide guidance on available water sources and direct usage of the UHS as a final source of cooling fluids.

9. Maintaining Core Cooling, PWR Portable Equipment Phase 2

Open Item: Implement a design change to install connection points, conduit, cabling, and transfer switches locally at battery chargers to provide for direct connection from the FLEX 480 VAC DGs.

This open item has been deleted. This design change is no longer needed due change to strategy to power vital 120VAC instrument bus via an inverter backup bus power from the vital reactor MCC.

10. Maintain Containment, PWR Installed Equipment Phase 1

Open Item: Perform an analysis to determine containment temperature and pressure response over a period of 72 hours. Perform analysis with and without RCS cooldown and with and without restoration of containment air cooling.

This open item is complete. An analysis of the Containment response during the ELAP (Analysis of Containment Response to ELAP Engineering Evaluation) event indicated that the Containment would not require additional cooling. The containment response analysis for an ELAP while RCS is being cooled by TDAFW indicates that the Containment Buildings of CCNPP Units 1 and 2 are passive/safe in an ELAP and do not require active cooling of Containment Air Cooling (CAC) or Containment Spray (CS). Therefore in an ELAP:

- Containment integrity is maintained (i.e., peak pressure under expected conditions reaches approximately 4 pounds per square inch gage (psig), which is well below the Technical Specification limit of 50 psig).
- Peak pressure occurs in about 2.5 hours from the time all AC power supplies are lost.
- Peak Containment temperature remains below 170°F. Thus the temperature on the surface of the Containment shell remains well below the limit of 276°F.
- The equipment qualification envelope is maintained with ample margin.

11. Maintain Containment, PWR Installed Equipment Phase 2

Open Item: Implement a design change to install a hose connection on the A-Train and B-Train CS headers in the Auxiliary Building.

The modification to inject fluid through the CS system to cool the containment building is no longer needed. Based on the guidance in Section 3.2.2 and Table 3-2 of NEI 12-06, an alternate Containment heat removal method is not necessary. The existing method to connect a FLEX portable pump via a CS pump discharge check valve special bonnet will be used instead.

12. Maintain Containment, PWR Installed Equipment Phase 3

Open Item: Perform an analysis to determine the feasibility of providing Containment cooling with CAC Units using an alternate cooling water strategy.

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This open item has been deleted. This analysis was determined not to be needed based on the analysis of the Containment response during the ELAP (Analysis of Containment Response to ELAP Engineering Evaluation) event which indicated that the Containment would not require additional cooling. The containment response analysis for an ELAP while RCS is being cooled by TDAFW indicates that the Containment buildings of CCNPP Units 1 and 2 are passive/safe in an ELAP and do not require active cooling of CAC or CS. Therefore in an ELAP:

- Containment integrity is maintained (i.e., peak pressure under expected conditions reaches approximately 4 pounds per square inch gage (psig), which is well below the Technical Specification limit of 50 psig).
- Peak pressure occurs in about 2.5 hours from the time all AC power supplies are lost.
- Peak Containment temperature remains below 170°F. Thus the temperature on the surface of the Containment shell remains well below the limit of 276°F.
- The equipment qualification envelope is maintained with ample margin.

13. Safety Function Support, PWR Installed Equipment Phase 1

Open Item: Perform an analysis to confirm that TDAFW Pump room air temperature remains below 130°F over 72 hours of pump operation.

This open item is complete. Engineering Calculation CA04467, "AFW Pump Room Transient Temperature Analysis under App. R/Non-LOOP, LOCA/LOOP, Appendix R Fire/LOOP and SBO Scenarios, Using Gothic Code," determined the expected TDAFW pump room temperature over a 72-hr period does not challenge long-term operation of the TDAFW pumps.

14. Safety Function Support, PWR Installed Equipment Phase 1

Open Item: Perform an analysis to confirm the Probable Maximum Precipitation (PMP) event maximum flood height will not impact the operation of TDAFW or preclude access to the room.

This open item is complete. Bechtel calculation 25794-000-KOC-0000-00005, CCNPP Units 1&2 Flooding Reevaluation, was completed as part of the 2.1 Flooding submittal. This calculation concludes that flooding from the PMP event will not cause inoperability of any safety related equipment, even with Turbine building doors left open during the duration of the event.

15. Safety Function Support, PWR Installed Equipment Phase 1

Open Item: Implement a design change to modify the 800 Megahertz (MHz) Radio System to provide protection from external hazards, transmitter and antennas protected from seismic, wind, and wind-driven missiles, including back-up power supply capable of 24 hours operation for the system and repeaters, or install an alternative communication system in lieu of modifying the 800 MHz Radio System.

This approach will be modified to include installing an alternative communications system in lieu of modifying the 800 MHz Radio System.

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16. Safety Function Support, PWR Installed Equipment Phase 1

Open Item: Develop primary and alternate strategies for ventilating the TDAFW Pump Room.

This open item is complete. The TDAFW Pump Room Habitability primary and alternative strategies are as follows:

Primary Strategy

The primary Phase 2 strategy will be to restore power to one of the two 480 VAC MCCs on each unit via a FLEX 480 VAC DG connected to the MCC's associated vital 480 VAC Load Center. This will allow operation of one of the two TDAFW Pump Room emergency ventilation fans.

Alternative Strategy

The alternate Phase 2 strategy will be to setup a portable air circulation fan powered by a small portable AC generator to ventilate the TDAFW Pump Room.

17. Safety Function Support, PWR Installed Equipment Phase 1

Open Item: Purchase the portable equipment needed to outfit CCNPP Fire Engine 171 for debris removal.

This open item is complete. Purchase of this additional portable debris removal equipment for the fire engine 171 is no longer being pursued in favor of purchasing larger debris removal vehicles.

18. Safety Function Support, PWR Installed Equipment Phase 3, Emergency Core Cooling System (ECCS) Room Habitability

As part of Phase 3 strategies, a Low Pressure Safety Injection (LPSI) or CS Pump is placed into service in order to establish Shutdown Cooling (SDC). This will result in heat-up of the associated ECCS Pump Room due to the heat generated by the 4KV motors, as well as, heat dissipated from the associated piping and Residual Heat Removal (RHR) heat exchanger. Placing SDC in service will require the Service Water (SW) system to be in service which is the cooling medium for the ECCS Pump Room Air Coolers. When the vital 480 VAC reactor MCCs are re-energized then power will be available to operate the ECCS Pump Room Air Cooler fans.

This strategy is being deleted as it describes a recovery strategy vice a coping strategy.

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

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

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CCNPP 6-MONTH STATUS REPORT
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6 Open Items from Overall Integrated Plan and Draft Safety Evaluation

Table 2 provides a summary of the open items documented in the OIP and the status of each item. Explanations for deleted and completed items are provided in Section 4.

**Table 2
Status of CCNPP FLEX OIP Open Items**

CCNPP OIP Open Items	Status
1. Add margin to design FLEX components and hard connection points to address future requirements as re-evaluation warrants. Portable FLEX components will be procured commercially	Not Started
2. Implement a design change to install permanent protected FLEX equipment connection points	Not Started
3. Evaluate deployment strategies and deployment routes to ensure they are assessed for and address applicable hazards impact.	Not Started
4. Develop a process for implementation of exceptions for the site security plan or other (license/site specific – 10CFR50.54X) requirements of a nature requiring NRC approval will be communicated in a future 6 month update following identification.)	Not Started
5. Define implementation routes upon finalizing a location or locations for FLEX equipment storage location(s).	Started
6. Evaluate requirements, options, and develop strategies to provide reasonably protected storage on site for the FLEX portable equipment.	Started
7. Design and build a protected storage location or locations for the FLEX equipment. Ensure the design meets the requirements of NEI 12-06.	Started
8. Identify analysis needed to develop or support mitigating strategies.	Started
9. Provide an administrative program governing the FLEX deployment strategy, marking of setup locations, including primary and alternate pathways, maintaining the pathways clear, and clearing the pathways.	Not Started
10. Determine the location of the CCNPP local staging area, primary and alternate delivery routes, and delivery methods to the proposed onsite laydown areas.	Started
11. Determine schedule for when RRCs will be fully operational.	Complete See Section 4 for explanation or basis
12. Define criteria for the local staging area by June 2013.	Started
13. Establish a suitable local staging area for portable FLEX equipment to be delivered from the RRC to the site.	Not Started
14. Develop site specific playbook for delivery of portable FLEX equipment from the RRC to the site.	Not Started
15. Implement a design change to replace the 1 ft. diameter wheel with a 3 ft. wheel on each Atmospheric Dump Valve (ADV) chain operator.	Not Started
16. Evaluate the feasibility of the WCAP-17601-P recommendation to install a remotely operated RCP CBO return line isolation valve.	Deleted See Section 4 for explanation or basis

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**Table 2
Status of CCNPP FLEX OIP Open Items**

CCNPP OIP Open Items	Status
17. Develop a procedure or FSG to perform an early cooldown and depressurization as recommended by WCAP-17601-P.	Started
18. Perform engineering analyses to confirm that CCNPP maintains an adequate level of Shutdown Margin (SDM) for an RCS cooldown to 350°F, to cover a period of at least 72 hours.	Started
19. Implement a design change to re-power the SIT level and pressure indicators from a vital 120 VAC instrument bus.	Not Started
20. Implement a design change to install new leak-tight SIT vent Solenoid Valves (SV) that will allow the vent line pipe caps to remain off.	Deleted See Section 4 for explanation or basis
21. <u>Original open item text:</u> Implement design changes to install “plug and play” protected hose connections for the portable alternate AFW pump to AFW on the exterior of the Auxiliary Building west wall with piping run to the 27 ft. East Penetration Rooms to connect to the AFW to S/G headers. <u>Modified open item text:</u> Utilize flexible hose for portions of the hard piping that was initially expected to connect on the exterior of the Auxiliary Building, to connect hoses to newly installed, dedicated hose connections located on the east side of the 45 ft. elevation of the Auxiliary Building (with piping run to the 27 ft. East Penetration Rooms to connect to the AFW to S/G headers).	Not Started See Section 4 for explanation or basis for open item wording change
22. Implement a design change to install reliable local level indicators on all of the water storage tanks located in the on 11, 12 and 21 CSTs, 11 DWST, and 11 and 12 PWSTs.	Not Started
23. Perform an analysis to determine the necessary scope of the DC load shedding strategy.	Not Started
24. Implement a design change to clearly identify the set of DC load breakers that will either be left energized or load shed by identifying the selected breakers by their unique numbers and load title.	Not Started
25. Implement a procedure or FSG to perform the DC load shedding.	Started
26. Complete a time-motion study to validate that DC load shedding can be accomplished on each unit in one (1) hour.	Not Started
27. Implement a design change to install a 24 hour Uninterruptible Power Supply (UPS) on the Mansell RCS Level Monitoring System.	Not Started
28. Perform engineering analyses and develop strategies for providing RCS make-up and core cooling while in Modes 5 and 6, for all possible RCS conditions, following an ELAP. The analysis should determine the FLEX pump capacity needed to provide adequate flow in all RCS conditions.	Not Started
29. Perform an analysis to determine that there is sufficient decay heat generated for TDAFW operation 36 hours after shutdown.	Started
30. Implement a design change to provide dedicated hose connections and piping to the Safety Injection System.	Not Started

ATTACHMENT (1)
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Table 2
Status of CCNPP FLEX OIP Open Items

CCNPP OIP Open Items	Status
31. Develop a procedure or FSG to mimic the AFW makeup strategy described in ERPIP-611, Attachment 1.	Started
32. Install a design change to add makeup and pump suction hose connections for FLEX pump connection to 12 CST.	Not Started
33. Install a design change to replace the 2-½ inch hose connections with 4 inch hose connections at 11 and 21 CSTs, 11 DWST, and 11 and 12 PWSTs.	Deleted See Section 4 for explanation or basis
34. Install a design change to add hose connections at 12 CST and 11 and 21 Refueling Water Storage Tanks (RWT) for makeup and suction for the FLEX pumps.	Not Started
35. Install design change to add 4" hose connections to the Reactor Coolant Waste Receiver Tanks (RCWRTs) and Reactor Coolant Waste Monitor Tanks (RCWMTs).	Not Started
36. Perform an analysis to determine the seismic survivability of the wells as a long-term source of make-up water. Analysis should include any modifications needed to improve the survivability of the associated Well Water System piping and to provide 480 VAC power to the well pumps.	Deleted See Section 4 for explanation or basis
37. Perform an analysis to determine the long-term effect on the S/Gs from use of water from the UHS as a cooling medium.	Deleted See Section 4 for explanation or basis
38. Perform an analysis to determine station battery coping time with DC load shedding. Analysis should consider battery age, battery performance without battery room ventilation, and load and load duration prior to completion of DC load shedding.	Not Started
39. Track the completion of ECP-11-000293 and -000294, the Reserve Battery distribution system modification that is currently in progress.	Started
40. Develop and implement procedures to supply power to critical instrumentation using primary and alternate methods.	Started
41. Perform an analysis to determine that the assumed load capacity of the FLEX 480 VAC DG is sufficient to provide power to the selected loads.	Not Started
42. Implement a design change to install connection points, conduit, and cabling from the 45 ft. and 27 ft. Switchgear Rooms to the west side of the 45 ft Auxiliary Building to connect FLEX 480 VAC DGs to any of the A-Train or B-Train vital 480 VAC Load Centers to provide power to the battery chargers and critical AC components.	Not Started
43. Implement a design change to install connection points, conduit, cabling, and transfer switches locally at the reactor MCCs to provide for direct connection from the FLEX 480 VAC DGs.	Deleted See Section 4 for explanation or basis
44. Implement a design change to install connection points, conduit, cabling, and transfer switches locally at battery chargers to provide for direct connection from the FLEX 480 VAC DGs.	Deleted See Section 4 for explanation or basis
45. Perform an analysis to determine the feasibility of the S/G "batch" feeding strategy.	Not Started

ATTACHMENT (1)
CCNPP 6-MONTH STATUS REPORT
FOR MITIGATION STRATEGIES FOR BEYOND-DESIGN-BASIS EXTERNAL EVENTS

Table 2
Status of CCNPP FLEX OIP Open Items

CCNPP OIP Open Items	Status
46. Implement a design change to install modifications for connection of a 4160 VAC RRC DG to either the A or B Train 1E 4160 VAC bus on each unit.	Not Started
47. Develop procedures or FSGs for repower vital 4160 VAC Class 1E buses from RRC FLEX 4KV DGs.	Not Started
48. Provide modified 4160 VAC breakers for direct RRC DG connection for use in place of the normal 4160 VAC breakers in service for LPSI Pump and SW Pump power supplies.	Not Started
49. Implement a design change to power containment dome and reactor cavity temperatures instrumentation from a vital 120 VAC instrument bus.	Not Started
50. Perform an analysis to determine containment temperature and pressure response over a period of 72 hours. Perform analysis with and without RCS cooldown and with and without restoration of containment air cooling.	Complete See Section 4 for explanation or basis
51. Implement a design change to install a hose connection on the A-Train and B-Train CS headers in the Auxiliary Building.	Deleted See Section 4 for explanation or basis
52. Purchase additional special check valve bonnets and store them inside each ECCS Pump Room.	Not Started
53. Perform an analysis to determine the feasibility of providing Containment cooling with CAC Units using an alternate cooling water strategy.	Deleted See Section 4 for explanation or basis
54. Install hose connections on the Service Water (SRW) supply and return lines to the CAC for connection to a RRC portable heat exchanger.	Not Started
55. Implement a design change to install reliable wide range spent fuel pool (SFP) level instrumentation in accordance with NRC Order EA-12-051.	Started
56. Implement a design change to provide a 6" hose connection to each RWT.	Not Started
57. Implement a design change to provide dedicated hose connections to the SFP Cooling system.	Not Started
58. Develop and implement procedures or FSGs that include the SFP Cooling FLEX makeup flow path.	Started
59. Develop procedures or FSGs that mimic the ERPIP-612 sections for SFP makeup and SFP spray.	Started
60. Implement a design change to install reliable wide range SFP fuel pool level instrumentation in accordance with NRC Order EA-12-05.1	Started
61. Perform an analysis to determine the Control Room temperature response over a period of 72 hours.	Not Started
62. Perform an analysis to confirm that TDAFW Pump room air temperature remains below 130°F over 72 hours of pump operation.	Complete See Section 4 for explanation or basis
63. Develop primary and alternate strategies for ventilating the TDAFW Pump Room.	Complete See Section 4 for explanation or basis
64. Perform an analysis to confirm the PMP event maximum flood height will not impact the operation of TDAFW or preclude access to the room.	Complete See Section 4 for explanation or basis

**ATTACHMENT (1)
CCNPP 6-MONTH STATUS REPORT
FOR MITIGATION STRATEGIES FOR BEYOND-DESIGN-BASIS EXTERNAL EVENTS**

**Table 2
Status of CCNPP FLEX OIP Open Items**

CCNPP OIP Open Items	Status
65. Perform an analysis to determine the possible effects of BDB external events on the Turbine Building structure and the potential effect on access to the TDAFW Pump Room.	Not Started
66. Develop an alternate access strategy for access into the TDAFW Pump Room.	Started
67. Perform an analysis to determine the temperature profile over 72 hours in the area around ADV enclosures.	Not Started
68. Perform an analysis to determine the Cable Spreading Room temperature response over a period of 72 hours.	Not Started
69. Investigate changing Appendix R lighting batteries to a longer life battery or new battery technology to lengthen the duration of lighting available in vital areas of the plant.	Not Started
70. Procure battery operated hardhat mounted lights ("miners" lights) for on-shift and Emergency Response Organization (ERO) personnel.	Not Started
71. Procure a sufficient quantity of hand-held battery operated lanterns for on-shift and ERO personnel.	Not Started
72. Procure six (6) portable diesel generator powered exterior lighting units with 30 ft. masts and a minimum 400,000 lumens.	Not Started
73. Change Appendix R lighting from incandescent to LED to lengthen the duration of lighting available in vital areas of the plant.	Not Started
74. Implement a design change to install a protected, backup power supply capable of 24 hours of operation, for the Plant Public Address system. This includes backup power for the individual building speaker network amplifiers.	Not Started
75. Implement a design change to modify the 800 MHz Radio System to provide protection from external hazards, transmitter and antennas protected from seismic, wind, and wind-driven missiles, including back-up power supply capable of 24 hours operation for the system and repeaters, or install an alternative communication system in lieu of the 800 MHz Radio system.	Not Started
76. Implement a design change to modify the Fixed Dedicated Satellite Phone System to provide protection from external hazards, and transmitter and antennas protected from seismic, wind, and wind-driven missiles, including back-up power supply capable of 24 hours operation for the system.	Not Started
77. Purchase one wheeled and one tracked vehicle with bucket/blade and grapple of sufficient size and load handling capacity to remove debris.	Not Started
78. Purchase the portable equipment needed to outfit CCNPP Fire Engine 171 for debris removal.	Deleted See Section 4 for explanation or basis
79. Implement a design change to install a protected alternate means of accessing the UHS for all BDBEs, including installing necessary modifications to meet required deployment times. The strategy must also address how debris in the UHS will be filtered / strained and how the resulting debris will effect core cooling.	Not Started
80. Develop strategies for use of the Control Room and Cable Spreading Room Appendix R Ventilation System during an ELAP.	Not Started

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CCNPP 6-MONTH STATUS REPORT
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**Table 2
Status of CCNPP FLEX OIP Open Items**

CCNPP OIP Open Items	Status
81. Perform an analysis to evaluate hydrogen buildup in the battery rooms during charging and the long term room temperature profiles.	Not Started
82. Perform an analysis to determine the Switchgear Room temperature response under the above scenario and assuming various 480 VAC load center and 4160 VAC bus loadings over a period of 72 hours.	Not Started
83. Perform an analysis to verify the above strategy will provide sufficient air flow to vent steam from the SFP Area.	Not Started
84. Evaluate the cost of draining 21 Fuel Oil Storage Tank (FOST) and 1A DG FOST and refilling with low sulfur diesel fuel oil.	Not Started
85. Implement a design change to install dedicated FLEX hose connections on 21 FOST, 1A DG FOST, and the 1B, 2A, and 2B DG fuel oil Y-strainers.	Not Started
86. Provide a permanent, fully protected diesel FOST for refueling the FLEX diesel-driven equipment.	Not Started
87. Perform an analysis of the fuel consumption rate for all of the FLEX equipment that could be in operation during an ELAP for a period of 72 hours to determine a conservative refueling interval.	Not Started
88. Develop strategies to reduce the transport time for fuel oil loading and delivery.	Started
89. Purchase the consumables that should be stocked to support at least 24 hours of site operation independent of offsite support.	Not Started
90. Provide a procedure governing the maintenance and distribution of the consumables that will be stocked to support at least 24 hours of site operation independent of offsite support.	Not Started
91. Develop a strategy to protect onsite consumables for use after a BDBEE.	Not Started
92. Develop equipment operating procedures or FSGs, considering vendor technical manual operating procedures, for each of the pieces of portable FLEX equipment that will be procured.	Not Started
93. Install connection points on Class 1E 4KV Buses for the RRC 4KV portable DG.	Not Started
94. Develop procedures or FSG for each of the RRC based strategies and for operation of the equipment provided by the RRC.	Not Started

Draft Safety Evaluation Open Item	Status
None.	

7 Potential Draft Safety Evaluation Impacts

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

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CCNPP 6-MONTH STATUS REPORT
FOR MITIGATION STRATEGIES FOR BEYOND-DESIGN-BASIS EXTERNAL EVENTS**

8 Communications Assessment Interim Actions Status

Table 3 provides a listing of the implementing actions documented in the Assessment of Communications during an ELAP (Reference 4). It provides the status of each action, and whether the expected completion date has changed. The dates are planning dates subject to change as design and implementation details are developed.

**Table 3
Status of CCNPP Communications Assessment Interim Actions**

Communications Assessment Implementing Actions	Target Completion Date	Status	Revised Target Completion Date *
Fixed Satellite Phone System and Antennas			
1. Determine the status of existing fixed satellite phone system and antennas in terms of suitability of being "reasonably protected".	12/31/2013	Started	
2. Install additional antennas as necessary to support the use of fixed satellite phones at all locations.	8/31/2014	Not Started	
North Service Building and Switchyard House			
1. Determine whether or not the North Service Building (NSB) and Switchyard House are "reasonably protected."	12/31/2013	Started	
Portable Satellite Phones			
1. Stage satellite phones		Complete Portable satellite phones have been placed in the Control Room, Technical Support Center (TSC), Operational Support Center (OSC), and Emergency Operations Facility (EOF) in preparation for use.	
2. Stage batteries and chargers in the applicable ERO Facilities.	10/31/2013	Started	

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CCNPP 6-MONTH STATUS REPORT
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**Table 3
Status of CCNPP Communications Assessment Interim Actions**

Communications Assessment Implementing Actions	Target Completion Date	Status	Revised Target Completion Date *
3. Update work instructions for portable satellite phone inventory.	10/31/2013	Not Started	
4. Develop/update preventive maintenance and testing procedures for portable satellite phones, batteries and chargers.	12/31/2013	Not Started	
5. Include information on portable satellite phone locations and usage in procedures.	12/31/2013	Started	
6. Procure and install a high power UPS or similar modification providing backup power for the battery chargers for portable satellite phones.	12/31/2014	Not Started	
Fixed Satellite Phones			
1. Procure and install fixed satellite phones, additional antennas and uninterruptable power supplies for the TSC/OSC, EOF, and Joint Information Center (JIC).	12/31/2014	Started	
2. Update work instructions for fixed satellite phone inventory		Complete Applicable Emergency Preparedness procedures have been updated to include Fixed Satellite phone inventory	
3. Develop/update preventive maintenance and testing procedures for fixed satellite phones.		Complete Applicable Emergency Preparedness procedures have been updated to include preventive maintenance and testing procedures for Fixed Satellite phones.	

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**Table 3
Status of CCNPP Communications Assessment Interim Actions**

Communications Assessment Implementing Actions	Target Completion Date	Status	Revised Target Completion Date *
4. Include information on fixed satellite phone locations and usage in procedures.		Complete Applicable Emergency Preparedness procedures have been updated to include use instructions for Fixed Satellite phones.	
5. Determine the acceptability of the backup UPS in its present location. Relocate higher, if necessary.	8/31/2014	Not Started	
6. Provide instructions for use at every fixed satellite phone location.		Complete Use instruction cards to supplement Emergency Preparedness procedures have been placed at all Fixed Satellite phone locations.	
Communication with ORO Facilities			
1. Provide each Offsite Response Organization (ORO) identified in Section 4.0 of the Communications Assessment with instructions for proper storage and rotation of satellite phone batteries.	10/31/2013	Not Started	
Portable Generators			
1. Develop portable generator fueling plan to ensure ability to provide power for a minimum of 24 hours.	8/31/2015	Not Started	
2. Develop procedures to maintain and test the portable generators.	12/31/2013	Not Started	

ATTACHMENT (1)
CCNPP 6-MONTH STATUS REPORT
FOR MITIGATION STRATEGIES FOR BEYOND-DESIGN-BASIS EXTERNAL EVENTS

Table 3
Status of CCNPP Communications Assessment Interim Actions

Communications Assessment Implementing Actions	Target Completion Date	Status	Revised Target Completion Date *
3. Update work instructions to inventory portable generators and ensure adequate volume of fuel.	12/31/2013	Not Started	
4. Develop preventive maintenance procedure for portable generators fuel supply.	12/31/2013	Not Started	
5. Procure additional generators as required to support FLEX and communications strategies.	6/30/2014	Not Started	
6. Determine a process for relocating portable generators to the appropriate locations to power the necessary equipment.	Startup 2015 RFO Unit 2	Not Started	
Plant Paging (Announcement) System			
1. Provide a battery backed power source for the Tellabs Peripheral Equipment and the Power Block Amplicenters or otherwise modify the paging system to attain battery backed operation in the event of a loss of all AC power at the site.	Startup 2015 RFO Unit 2	Not Started	
2. Revise ERPIP 3.0, Immediate Actions, to provide guidance to the Shift Manager on how to implement back-up site announcements if the Site Paging system is not functional.	12/31/2013	Not Started	
3. Revise ERPIP 750, Security, to provide specific guidance on how to execute the public address announcements if the plant paging system is not functional.	12/31/2013	Not Started	
4. Revise ERPIP-B.1, Equipment Checklist, to add necessary bull horns to support back-up method for site announcements.	12/31/2013	Started	
Training			
1. Evaluate training needs specific to the use of, portable and fixed satellite phones, radios and implementation of back-up methods for site announcements during an extended loss of AC power event.	11/30/2014	Not Started	

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CCNPP 6-MONTH STATUS REPORT
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**Table 3
Status of CCNPP Communications Assessment Interim Actions**

Communications Assessment Implementing Actions	Target Completion Date	Status	Revised Target Completion Date *
2. Develop and implement training on the use of portable generators.	Startup 2015 RFO Unit 2	Not Started	
Portable Radios			
1. Procure and install a high power UPS or similar modification providing backup power for the radio system repeaters	Startup 2015 RFO Unit 2	Not Started	
2. Complete estimates of portable radio battery life and purchase additional batteries as necessary based on an estimate of minimum talk time to ensure 24 hours of operation.	10/31/2013	Started	
Note: * There are no changes to target completion dates. However, the column labeled Revised Target Completion Date is reserved for future use.			

9 References

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

1. Letter from M. G. Korsnick (CENG) to Document Control Desk (NRC), Overall Integrated Plan for Mitigation Strategies for Beyond-Design-Basis External Events, dated February 28, 2013.
2. NRC Order Number EA-12-049, Order to Modify Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events, dated March 12, 2012.
3. Letter from M.G. Korsnick (CENG) to Document Control Desk (NRC), Supplement to Overall Integrated Plan for Mitigation Strategies for Beyond-Design-Basis External Events, dated March 8, 2013.
4. Letter from M.G. Korsnick (CENG) to Document Control Desk (NRC), Response to NRC Letter on Technical Issues for Resolution Regarding Communication Submittals Associated with Near-Term Task Force Recommendation 9.3, dated February 22, 2013.
5. NEI 12-06, Diverse and Flexible Coping Strategies (FLEX) Implementation Guide, dated August 2012.

ATTACHMENT (2)

**GINNA 6-MONTH STATUS REPORT FOR MITIGATION STRATEGIES
FOR BEYOND-DESIGN-BASIS EXTERNAL EVENTS**

ATTACHMENT (2)
GINNA 6-MONTH STATUS REPORT
FOR MITIGATION STRATEGIES FOR BEYOND-DESIGN-BASIS EXTERNAL EVENTS

1 Introduction

The R.E. Ginna Nuclear Power Plant, LLC (Ginna) Overall Integrated Plan (OIP) was submitted to the Nuclear Regulatory Commission (NRC) in February 2013 (Reference 1), documenting the diverse and flexible strategies (FLEX), in response to Reference 2. Subsequently, a supplement to the Ginna OIP for FLEX was submitted to the NRC in March 2013 (Reference 3). This enclosure provides an update of milestone accomplishments since submittal of the OIP, including any changes to the compliance method, schedule, or need for relief/relaxation and associated basis (if applicable).

Ginna developed an Interim Action Implementation Schedule, as part of an Assessment of Communications during an Extended Loss of AC Power (ELAP) (Reference 4). A commitment was made in Reference 4 to include the status of the implementing actions identified in Section 4.12 of Ginna's communications assessment as part of the six-month status reports prepared pursuant to Section IV.C.2 of NRC Order EA-12-049. The updated status of the communications assessment interim actions is provided in Section 8.

2 Milestone Accomplishments

No milestones other than updates were due to be completed since the development of the OIP (References 1 and 3). The status information is current as of July 15, 2013.

3 Milestone Schedule Status

Table 1 provides an update to Attachment 2 of the OIP (References 1 and 3). 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. Any changes to the following target completion dates will be reflected in the subsequent 6-month status reports.

Walk-throughs or demonstrations encompassing all FLEX equipment points of connection/tie-ins for Phase 2 and Phase 3 strategies will be performed as presented in Table 1. A detailed schedule, including target dates, has not been developed.

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GINNA 6-MONTH STATUS REPORT
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Table 1
Status of Ginna FLEX OIP Milestones

Milestone	Target Completion Date	Activity Status	Revised Target Completion Date
Commence Engineering and Design	Started	Started	
Commence Procurement of Equipment	Started	Started	
Commence Installation of Equipment	Started	Started	
Submit 6-Month Status Report	August 2013	Complete	
Develop Strategies/Contract with the Regional Response Center (RRC)	November 2013	Started	
Submit 6-Month Status Report	February, 2014	Not Started	
Complete Engineering and Design	1 st Qtr 2014	Started	2 nd Qtr 2014
Create Maintenance and Testing Procedures	June 2014	Started	
Submit 6-Month Status Report	August, 2014	Not Started	
Procedure Changes Training Material Complete	September, 2014	Not Started	
Develop Training Plan	November 2014	Not Started	
Submit 6-Month Status Report	February 2015	Not Started	
Issue FLEX Support Guidelines	April, 2015	Not Started	
Perform Walk-throughs or Demonstrations	May 2015	Not Started	
Provide onsite and augmented staffing assessment considering functions related to Near-Term Task Force (NTTF) Recommendation 4.2.	May 2015	Not Started	
Implement Training	June 2015	Not Started	
Submit 6-Month Status Report	August, 2015	Not Started	
Complete Procurement of Equipment	3 rd Qtr 2015	Not Started	
Full compliance with EA-12-049 is achieved*	Fall 2015	Not Started	
Submit Completion Report	4 th Qtr 2015	Not Started	

* (Full compliance after second refueling outage)

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4 Changes to Compliance Method

Changes were made to the information provided in the OIP that do not change the compliance method with Nuclear Energy Institute (NEI) 12-06 (Reference 5).

The open item to implement a design change to install connections for a portable air compressor to be connected to the instrument air system at a location/configuration to support Atmospheric Relief Valve (ARV) operation was determined to be unnecessary. The same operational benefit can be obtained by implementing a strategy to remove the instrument air connection to the ARV and by installing a pre-staged/configured adapter to supply air to the ARV. This open item is revised to implement a strategy to connect a portable air compressor at a location/ configuration to support ARV operation.” Regardless of whether air is available to operate the ARVs, local operation of at least one Steam Generator (S/G) ARV will be available following a Beyond-Design-Basis-External Event (BDBEE).

The conceptual strategy to maintain core cooling and heat removal (S/Gs not available) (Modes 5 and 6) has been revised to include the capability to supply lake water to the Component Cooling Water (CCW) side of the Residual Heat Removal (RHR) Heat Exchanger via a high capacity diesel driven portable pump. This is based on our conclusion that the ability to cope with a BDBEE will be enhanced with indefinite RHR cooling availability, and will minimize the potential for containment challenges from heat addition. This strategy will provide flow from Lake Ontario to the CCW side of the RHR Heat Exchanger via a portable pump, thereby providing indefinite capability for RHR cooling of the reactor core.

The open item to implement a design change to qualify containment pressure instrumentation for a Tornado Missile event is revised to implement a strategy to determine containment pressure after a Tornado Missile event. All six of the containment pressure channels have transmitter or cable Tornado Missile survivability concerns. However, two of the six containment pressure transmitters are located in an area protected from the external events applicable to Ginna. A strategy will be developed to obtain containment pressure readings at these locations.

The following is a list of the Open Items that have been deleted or coping strategies that have been changed from the OIP, with an explanation provided:

- 1. Maintain Core Cooling & Heat Removal (S/Gs Available; Modes 1 – 4 and Mode 5 with Loops Filled), PWR Installed Equipment Phase 2**

Open Item 21: Implement a design change to install connections for a portable air compressor to be connected to the instrument air system at a location/configuration to support ARV operation.

This item is revised to state “Implement a strategy to connect a portable air compressor at a location/ configuration to support ARV operation.” Local operation of at least one S/G ARV will be available following a BDBEE. A strategy will be developed to allow ARV operation by establishing an air connection to the ARV if remote operation by air is desired. A modification is not necessary for this strategy.

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GINNA 6-MONTH STATUS REPORT
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2. Maintain Core Cooling & Heat Removal (S/Gs Not Available) (Modes 5 & 6), PWR Portable Equipment Phase

Open Item 73: Implement a strategy to provide cooling water to the RHR Heat Exchangers using a portable diesel driven pump.

This item was added to provide additional capabilities to respond to a BDBEE.

3. Maintain Containment, PWR Installed Equipment Phase 1

Open Item 51: Implement a design change to qualify containment pressure instrumentation for a Tornado Missile event.

This item is revised to state "Implement a strategy to determine containment pressure after a Tornado Missile event." Two of the six containment pressure transmitters are located in an area protected from BDBEEs. A strategy will be developed to obtain containment pressure readings at these locations.

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

Ginna 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

Table 2 provides a summary of the open items documented in the OIP and the status of each item.

ATTACHMENT (2)
GINNA 6-MONTH STATUS REPORT
FOR MITIGATION STRATEGIES FOR BEYOND-DESIGN-BASIS EXTERNAL EVENTS

Table 2
Status of Ginna FLEX OIP Open Items

Ginna OIP Open Items	Status
1. Implement a design change to install permanent protected FLEX equipment connection points. (also see OI 23)	Started.
2. Provide for onsite storage of Phase 2 FLEX components that is protected against external events by design or location. Implement a design change to provide a protected storage location for transportation (equipment and fuel) and debris removal equipment. Evaluate deployment strategies and deployment routes for hazards impact. Evaluate requirements and options and develop strategies related to the storage onsite of the FLEX portable equipment. Establish deployment routes from FLEX equipment storage locations to connection points. Develop a strategy and purchase equipment to respond to events that may require debris removal such as following a flood, tornado, or snow storm. Develop a strategy to move FLEX equipment, including providing reasonable protection from a BDBEE.	Not Started
3. Exceptions for the site security plan or other (license/site specific – 10 CFR 50.54x) requirements of a nature requiring NRC approval will be communicated in a future 6-month update following identification.	Not Started
4. Develop and implement procedures to commence feeding the steam generators (S/Gs) from Standby Auxiliary Feedwater (SAFW) powered by the new SAFW Diesel Generator (D/G) and taking suction from the new Condensate Storage Tank (CST) prior to reaching 5 ft in the existing CST.	Not Started
5. Develop and implement a FLEX method / procedure to refill the new SAFW CST prior to losing suction.	Not Started
6. Develop and implement a program and/or procedure to keep FLEX equipment deployment pathways clear or with identified actions to clear the pathways.	Not Started
7. Determine schedule for when RRCs will be fully operational.	Complete The current scheduled date is June 11, 2015.
8. Define criteria for the local RRC staging area by June 2013.	Started

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GINNA 6-MONTH STATUS REPORT
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Table 2
Status of Ginna FLEX OIP Open Items

Ginna OIP Open Items	Status
9. Establish a suitable local staging area for portable FLEX equipment to be delivered from the RRC to the site.	Not Started
10. Develop site specific playbook for delivery of portable FLEX equipment from the RRC to the site.	Started
11. Perform an analysis to determine the diesel driven portable high pressure pump upper and lower head requirements to provide for a minimum of 215 gpm to a S/G without causing Reactor Coolant System (RCS) pressure to decrease to the point where nitrogen will be injected from the SI Accumulators, assuming suction is directly from the Ultimate Heat Sink (UHS).	Not Started
12. Develop and implement procedures to close Safety Injection (SI) Accumulator injection valves or vent the SI Accumulators prior to nitrogen injection into the RCS.	Not Started
13. Perform an analysis to determine the time to restore feed to a S/G if only one S/G was able to be supplied with feedwater after a trip and then feed is lost to that one S/G. This is to account for the reduction in water available for heat removal. (Note: the 13 designator was deleted with deleting the open item.)	Not Started.
14. Implement the design change to install the 1 MW SAFW D/G, 160,000 gallon Condensate Storage Tank (CST), and enclosure meeting the reasonable protection requirements of NEI 12-06.	Started
15. Develop and implement procedures to feed S/Gs using a SAFW Pump powered by the new SAFW D/G and taking suction on the new 160,000 CST. Revise procedures to direct Operators to manually establish makeup to the S/Gs via this flow path if the Turbine Auxiliary Feedwater (TDAFW) Pump fails to deliver water to the S/Gs.	Not Started
16. Implement a design change to protect a S/G ARV from Tornado Missiles to address reactor core cooling and heat removal using a high capacity portable diesel driven pump.	Not Started
17. Perform an analysis to demonstrate adequate manpower, communications capability, and habitability for local operation of the S/G ARVs. If this cannot be demonstrated, implement a design change to provide for ARV control from the Control Room for seismic and tornado missile events.	Started
18. Develop and implement procedures/administrative controls to ensure that the new CST maintains a minimum usable volume at all times.	Not Started

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Table 2
Status of Ginna FLEX OIP Open Items

Ginna OIP Open Items	Status
19. Perform an analysis or implement a design change to qualify S/G Pressure instrumentation for a Tornado Missile event.	Not Started
20. Identify instrumentation and develop procedures to take field readings of necessary parameters, including (Pressure Indicator) PI-430 and (Level Indicator) LI-427.	Started
21. Implement a strategy to connect a portable air compressor at a location/configuration to support ARV operation.	Not Started
22. Develop and implement procedures to refill the new CST from an alternate water source prior depleting the usable volume (approximately 24 hours after the event).	Not Started
23. Implement a design change as part of the installation of the new CST to install a mechanical connection that will allow the tank to be refilled from a portable diesel driven pump.	Started
24. Perform an analysis to establish plant conditions in Phase 1 that will allow diesel driven high capacity portable pump to be utilized as soon as plant resources are available to provide defense in depth for maintaining an adequate heat sink should SAFW fail.	Not Started
25. Implement a design change to install a new isolation valve upstream of the FLEX connection to S/G B in case a tornado missile impacts a section of unprotected piping between the SAFW Building and the connection point.	Not Started
26. Implement a design change to provide a sustainable source of nitrogen and/or air to the Power Operated Relief Valves (PORVs) to protect RCS Integrity during a BDBEE while in Mode 4 or Mode 5, loops filled.	Not Started
27. Develop and implement procedures to provide guidance for water solid S/G cooldown using FLEX equipment.	Not Started
28. Ensure RRC can supply D/Gs capable of powering vital bus loads.	Not Started
29. Implement a design change to provide connections to 480 Volt vital busses to be able to connect to RRC supplied D/Gs.	Not Started
30. Ensure RRC can supply a water processing unit.	Started
31. Implement a design change to install low leakage Reactor Coolant Pump (RCP) seals. The new seals need to be able to withstand T_{hot} for an extended period of time.	Not Started

ATTACHMENT (2)
GINNA 6-MONTH STATUS REPORT
FOR MITIGATION STRATEGIES FOR BEYOND-DESIGN-BASIS EXTERNAL EVENTS

Table 2
Status of Ginna FLEX OIP Open Items

Ginna OIP Open Items	Status
32. Perform an analysis to validate that a FLEX Boric Acid Storage Tank (FBAST) with a boron concentration of at least 2750 parts per million (ppm) and no more than 3050 ppm, and containing a minimum usable volume of 7000 gallons, is sufficient to maintain the reactor subcritical at Beginning of Life (BOL) or End of Life (EOL) conditions with T_{ave} at or near no-load T_{ave} , and at EOL conditions with a cooldown to 350°F. (Analysis must be bounding for current and future cycles.)	Not Started
33. Implement a design change to convert the existing SAFW Test Tank to the FBAST with a permanent connection to the new pre-staged high pressure pump and connection(s) for a portable diesel driven pump.	Not Started
34. Design and implement the capability to inject blended borated water into the RCS using an inline blender, at the required flow rate with margin, once an analysis determines the RCS makeup requirement for Mode 5, loops not filled and pressurizer manway not removed. (also see OI 39)	Not Started
35. Implement a design change to install a pump capable of pumping 22 gallons per minute (gpm) of borated water into the RCS at 2235 pounds per square inch gage (psig), or 70 gpm at 1500 psig, from the new FBAST with discharge piping connected to the Charging header.	Started
36. Develop and implement procedures to initiate RCS boration prior to commencing RCS cooldown to provide margin to prevent re-criticality.	Not Started
37. Implement a design change to connect a portable diesel engine driven high pressure pump to the FBAST and the Charging line, which is capable of pumping 20 gpm of borated water from the FBAST to the RCS at 2235 psig.	Not Started
38. Ensure the RRC will supply boric acid for use with the inline blender.	Not Started
39. Perform an analysis to determine minimum RCS makeup flow sufficient for simultaneous core heat removal and boron flushing for Mode 5, loops not filled and pressurizer manway not removed. (also see OI 34)	Not Started
40. Perform an analysis to determine the transition point from gravity fill of the refueling cavity to when forced makeup is required.	Not Started

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GINNA 6-MONTH STATUS REPORT
FOR MITIGATION STRATEGIES FOR BEYOND-DESIGN-BASIS EXTERNAL EVENTS

Table 2
Status of Ginna FLEX OIP Open Items

Ginna OIP Open Items	Status
<p>41. For Mode 5, Loops Not Filled, and Pressurizer Manway Not Removed, RCS Heat Removal will be by RCS Bleed and Feed. Items under consideration are:</p> <ul style="list-style-type: none"> • Establish RCS feed path using low pressure pump capable of [To Be Determined] gpm at > 50 psig and a maximum discharge pressure of 410 psig to the RCS. • Establish sufficient RCS bleed path (PORVs, Reactor Head Vents) • Implement a design change to install permanent connection point for Instrument Air to Containment (OI 53) • Establish feed to available S/Gs Partial strategy for consideration - Fill available S/Gs to provide limited heat sink function and additional time before boiling of the coolant occurs. Existing procedural guidance for Water Solid S/G Cooldown provides guidance that can be modified for use with a high flow portable diesel driven pump to maintain the limited heat sink function. • If Water Solid S/G Cooldown is effective to maintain core cooling and heat removal, secure RCS Bleed and Feed and maintain Pressurizer Level. 	Not Started
42. Perform an analysis to determine RCS vent path requirements for Mode 5 with PORV vent path.	Not Started
43. Develop and implement procedures to makeup to the refueling cavity from the new CST, UHS, or FBAST to maintain refueling cavity level and boron concentration.	Not Started
44. Perform a boron mixing analysis for the effects on RCS boron concentration by providing unborated water to the refueling cavity via the transfer canal from the Auxiliary Building to Containment.	Not Started
45. Evaluate the viability of feed and bleed for available S/Gs to provide a limited heat sink function and additional time before boiling of the coolant occurs as a parallel mitigating strategy during Modes 5 & 6. This analysis must address reflux condensation and its potential effects on reactor shutdown margin.	Not Started
46. Implement a design change to establish provisions for refilling the FBAST with borated water.	Not Started
47. Implement a design change to install permanent connection point for Instrument Air to Containment.	Not Started
48. Perform an evaluation to determine a method for recirculation cooling of the RCS if the Auxiliary Building Sub-basement is flooded by Tornado Missiles damaging non-protected tanks on the Auxiliary Building Operating Floor.	Not Started

ATTACHMENT (2)
GINNA 6-MONTH STATUS REPORT
FOR MITIGATION STRATEGIES FOR BEYOND-DESIGN-BASIS EXTERNAL EVENTS

Table 2
Status of Ginna FLEX OIP Open Items

Ginna OIP Open Items	Status
49. Perform an analysis to determine the containment pressure profile during an ELAP / Loss of Ultimate Heat Sink (LUHS) event, after the low leakage RCP seal technology is chosen, and determine the mitigating strategies necessary to ensure the instrumentation and controls in containment which are relied upon by the Operators are sufficient to perform their intended function.	Not Started
50. Perform an analysis of the containment function to determine the mitigating strategy acceptance criteria for an ELAP / LUHS event.	Not Started
51. Implement a strategy to determine containment pressure after a Tornado Missile event.	Not Started
52. Develop the Phase 3 strategy after the containment pressure analysis is completed as described in Maintain Containment, PWR Portable Equipment Phase 2.	Not Started
53. Ensure the RRC will provide additional portable pumps and equipment to spray water into containment or supply water to the Containment Recirculation Fans / Coolers.	Not Started
54. Implement a design change to install a protected makeup connection to the Spent Fuel Pool (SFP) cooling piping to provide makeup to the SFP that exceeds SFP boil-off and provide a means to supply SFP makeup without accessing the SFP walkway.	Not Started
55. Provide the necessary connecting hoses and/or equipment to work with existing pumps and water sources for filling the SFP.	Not Started
56. Revise ER-SFP.2 to provide multiple strategies for establishing a diverse means of SFP makeup for at least 30 hours without offsite supplies.	Not Started
57. Perform an analysis to determine if a vent pathway from the SFP is needed for steam and condensate to minimize the potential for steam to cause access and equipment problems in the Auxiliary Building. (also see OI 62)	Not Started
58. SFP Water Level instrument numbers will be provided upon detailed design completion.	Not Started
59. Ensure the RRC will provide additional portable pumps and equipment to: <ul style="list-style-type: none"> • provide water from the UHS to the Standby SFP Heat Exchanger to remove heat from the SFP cooling system with the Standby SFP Recirculation Pump; or • provide water to SFP Heat Exchanger A to remove heat from the SFP Cooling System with the Standby SFP Recirculation Pump or SFP Pump A, or • provide a heat exchanger and equipment to provide cooling for the SFP. 	Started

ATTACHMENT (2)
GINNA 6-MONTH STATUS REPORT
FOR MITIGATION STRATEGIES FOR BEYOND-DESIGN-BASIS EXTERNAL EVENTS

Table 2
Status of Ginna FLEX OIP Open Items

Ginna OIP Open Items	Status
60. Implement a design change to install connection points needed to supply the battery chargers from the 1 MW D/G.	Not Started
61. Implement a design change to install connection points needed to supply the battery chargers from a 100 kW D/G.	Not Started
62. Perform GOTHIC calculations consistent with NUMARC 87-00, <i>Guidelines and Technical Bases for NUMARC Initiatives Addressing Station Blackout at Light Water Reactors</i> , to determine the effects of a loss of HVAC during an ELAP for the following areas: <ul style="list-style-type: none"> • Intermediate Building, TDAFW Pump and ARV/ Safety Valve (SV) areas • Auxiliary Building, Refueling Water Storage Tank (RWST) area • Battery Rooms, Relay Room, and Control Room • Standby Auxiliary Feedwater Building 	Started
63. Perform an analysis to evaluate the Battery Room low temperature for an ELAP event, assuming -16°F air temperature to determine if, and when, Battery Room heating is required.	Not Started
64. Implement a design change to install a protected primary and secondary means of accessing the UHS for all BDBEEs, and install necessary modifications to meet required deployment times. This must also address how debris in the UHS or other raw water sources will be filtered / strained and how the resulting debris will effect core cooling.	Not Started
65. Implement a design change to provide for transferring diesel fuel from the D/G A and D/G B Fuel Oil Storage Tanks (FOSTs) to a fuel transfer vehicle.	Not Started
66. Perform an analysis to provide a basis that the Offsite D/G FOSTs are reasonably protected from BDBEEs.	Not Started
67. Develop the strategy to transfer fuel from protected fuel storage locations to FLEX equipment.	Not Started
68. Develop strategies to provide for emergency lighting to support Operator actions after a BDBEE.	Not Started
OI 69: Develop a strategy to protect onsite consumables for use after a BDBEE.	Not Started
70. Develop and implement procedures to establish battery room ventilation within 72 hours of the event to prevent exceeding the unacceptable hydrogen concentration limit of 2%, once the GOTHIC analysis has been completed as discussed in Phase 2.	Not Started

**ATTACHMENT (2)
GINNA 6-MONTH STATUS REPORT
FOR MITIGATION STRATEGIES FOR BEYOND-DESIGN-BASIS EXTERNAL EVENTS**

**Table 2
Status of Ginna FLEX OIP Open Items**

Ginna OIP Open Items	Status
71. Table 3 lists Phase 3 Response Equipment / Commodities that are being considered for pre-staging at an offsite location. These include: <ul style="list-style-type: none"> • Radiation Protection Equipment • Commodities – Food, Potable Water • Diesel Fuel • Heavy Equipment – Transportation, Debris Removal • Boric Acid • Portable Lighting • Portable Toilets 	Not Started
72. Install wide range SFP level instrumentation in accordance with NRC Order EA-12-051.	Started
73. Implement a strategy to provide cooling water to the RHR Heat Exchangers using a portable diesel driven pump.	Not Started

Draft Safety Evaluation Open Item	Status
None	

7 Potential Draft Safety Evaluation Impacts

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

8 Communications Assessment Interim Actions Status

Table 3 provides a listing of the implementing actions documented in the Assessment of Communications during an ELAP (Reference 4). It provides the status of each action, and whether the expected completion date has changed. The dates are planning dates subject to change as design and implementation details are developed.

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GINNA 6-MONTH STATUS REPORT
FOR MITIGATION STRATEGIES FOR BEYOND-DESIGN-BASIS EXTERNAL EVENTS

Table 3
Status of Ginna Communications Assessment Interim Actions

Communications Assessment Implementing Actions	Target Completion Date	Status	Revised Target Completion Date *
Fixed Satellite Phone System and Antennas			
1. Determine the status of existing fixed satellite phone system and antennas in terms of suitability of being "Reasonably protected"	12/31/2013	<p>Complete.</p> <p>AI-2013-000685-008</p> <p>The fixed satellite phone system in the Control Room is reasonably protected.</p> <p>The fixed satellite phone system in the Technical Support Center (TSC) is reasonably protected from Floods and Tornados. A structural model has been developed with an analysis pending for Seismic events.</p> <p>The "fixed satellite phone antennas" on the Control Building and TSC are not reasonably protected from Seismic or Tornado events.</p>	
2. Install additional antennas as necessary to support the use of additional fixed satellite phones at all onsite locations (Control Room, Technical Support Center (TSC), and Operational Support Center (OSC)).	8/31/2014	Not Started	

ATTACHMENT (2)
GINNA 6-MONTH STATUS REPORT
FOR MITIGATION STRATEGIES FOR BEYOND-DESIGN-BASIS EXTERNAL EVENTS

Table 3
Status of Ginna Communications Assessment Interim Actions

Communications Assessment Implementing Actions	Target Completion Date	Status	Revised Target Completion Date *
NAB, TSC and Service Buildings			
1. Determine whether or not the Nuclear Assurance Building (NAB), TSC and Service Building are "reasonably protected."	12/31/2013	Started	
Portable Satellite Phones			
1. Stage portable satellite phones	Complete	Complete	
2. Stage portable satellite phone batteries and chargers in the applicable Emergency Response Organization (ERO) Facilities.	10/31/2013	Started	
3. Update work instructions for portable satellite phone inventory.	10/31/2013	Started	
4. Develop/update preventive maintenance and testing procedures for portable satellite phones, batteries and chargers.	12/31/2013	Started	
5. Include information on portable satellite phone locations and usage in procedures.	12/31/2013	Started	
6. Stage off-site portable satellite phones.	12/31/2013	Started	
7. Procure and install a high power UPS or similar modification providing backup power for the battery chargers for portable satellite phones.	12/31/2014	Not Started	

ATTACHMENT (2)
GINNA 6-MONTH STATUS REPORT
FOR MITIGATION STRATEGIES FOR BEYOND-DESIGN-BASIS EXTERNAL EVENTS

Table 3
Status of Ginna Communications Assessment Interim Actions

Communications Assessment Implementing Actions	Target Completion Date	Status	Revised Target Completion Date *
Fixed Satellite Phones			
1. Procure and install fixed satellite phones, additional antennas, and uninterruptable power supplies for the TSC/OSC, Control Room, Emergency Operations Facility (EOF), Joint Information Center (JIC), and Wayne and Monroe Counties Emergency Operations Centers (EOCs) and Warning Points (WPs). Include the capability to power the portable satellite phone battery chargers.	12/31/2014	Not Started	
2. Develop/update preventative maintenance and testing procedures for fixed satellite phones.	8/31/2014	Not Started	
3. Include information on fixed satellite phone locations and usage in procedures.	12/13/2013	Not Started	
4. Provide instructions for use of fixed satellite phones at each location.	12/31/2014	Not Started	
Communication with ORO Facilities			
1. Provide each Offsite Response Organization (ORO) identified in Section 4.3 of the Communications Assessment with instructions for proper storage and rotation of satellite phone batteries.	8/31/2013	Started	
Portable Generators			
1. Develop portable generator fueling plan to ensure ability to provide power for a minimum of 24 hours.	12/31/2013	Started	
2. Develop procedures to maintain and test the portable generators.	12/31/2013	Started	

ATTACHMENT (2)
GINNA 6-MONTH STATUS REPORT
FOR MITIGATION STRATEGIES FOR BEYOND-DESIGN-BASIS EXTERNAL EVENTS

Table 3
Status of Ginna Communications Assessment Interim Actions

Communications Assessment Implementing Actions	Target Completion Date	Status	Revised Target Completion Date *
3. Update work instructions to inventory portable generators and ensure adequate volume of fuel.	12/31/2013	Started	
4. Develop preventive maintenance procedure for portable generators fuel supply.	12/31/2013	Started	
5. Determine a process for relocating portable generators to the appropriate locations to power the necessary equipment.	12/31/2013	Started	
Training			
1. Evaluate training needs specific to the use of portable and fixed satellite phones, and radios during an ELAP event.	10/31/2015	Not Started	
2. Develop and implement training on the use of backup generators.	10/31/2015	Not Started	
3. Revise EPIP-1-18 as described in Section 4.11 of Reference 4 Brief appropriate personnel on the contents of this procedure.	10/31/2013	Not Started	
APC Back-UPS ES 750			
1. Determine whether APC Back-UPS ES 750 is high enough above ground elevation in the On-Site Telephone Building to be protected from flooding.	12/31/2013	Not Started	
Portable Radios			
1. Procure and install a high power UPS or similar modification providing backup power for the radio system repeaters.	10/31/2015	Not Started	

**ATTACHMENT (2)
GINNA 6-MONTH STATUS REPORT
FOR MITIGATION STRATEGIES FOR BEYOND-DESIGN-BASIS EXTERNAL EVENTS**

**Table 3
Status of Ginna Communications Assessment Interim Actions**

Communications Assessment Implementing Actions	Target Completion Date	Status	Revised Target Completion Date *
2. Complete estimates of portable radio battery life and procure additional batteries as necessary based on an estimate of minimum talk time to ensure 24 hours of operation.	10/31/2013	Started	
Note: * There are no changes to target completion dates. However, the column labeled Revised Target Completion Date is reserved for future use.			

9 References

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

1. Letter from M. G. Korsnick (CENG) to Document Control Desk (NRC), Overall Integrated Plan for Mitigation Strategies for Beyond-Design-Basis External Events, dated February 28, 2013.
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.
3. Letter from M.G. Korsnick (CENG) to Document Control Desk (NRC), Supplement to Overall Integrated Plan for Mitigation Strategies for Beyond-Design-Basis External Events, dated March 8, 2013.
4. Letter from M.G. Korsnick (CENG) to Document Control Desk (NRC), Response to NRC Letter on Technical Issues for Resolution Regarding Communication Submittals Associated with Near-Term Task Force Recommendation 9.3, dated February 22, 2013.
5. NEI 12-06, Diverse and Flexible Coping Strategies (FLEX) Implementation Guide, dated August 2012.

ATTACHMENT (3)

**NMP1 6-MONTH STATUS REPORT FOR MITIGATION STRATEGIES
FOR BEYOND-DESIGN-BASIS EXTERNAL EVENTS**

ATTACHMENT (3)
NMP1 6-MONTH STATUS REPORT
FOR MITIGATION STRATEGIES FOR BEYOND-DESIGN-BASIS EXTERNAL EVENTS

1 Introduction

The Nine Mile Point Unit 1 (NMP1) Overall Integrated Plan (OIP) was submitted to the Nuclear Regulatory Commission (NRC) in February 2013 (Reference 1), documenting the diverse and flexible strategies (FLEX), in response to Reference 2. Subsequently, a supplement to the NMP1 OIP for FLEX was submitted to the NRC in March 2013 (Reference 3). This attachment provides an update of milestone accomplishments since submittal of the OIP, including any changes to the compliance method, schedule, or need for relief/relaxation and associated basis (if applicable).

NMP1 developed an Interim Action Implementation Schedule, as part of an Assessment of Communications during an Extended Loss of AC Power (ELAP) (Reference 4). A commitment was made in Reference 4 to include the status of the implementing actions identified in Section 4.12 of the NMP1 communications assessment as part of the six-month status reports prepared pursuant to Section IV.C.2 of NRC Order EA-12-049. The updated status of the communications assessment interim actions is provided in Section 8.

2 Milestone Accomplishments

The following milestone(s) have been completed since the development of the OIP (References 1 and 3):

- Refueling Outage (RFO) including walk downs in support of pending modifications for installation for FLEX strategies.

The status information is current as of July 15, 2013.

3 Milestone Schedule Status

Table 1 provides an update to Attachment 2 of the OIP (References 1 and 3). 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. Any changes to the following target completion dates will be reflected in subsequent 6-month status reports.

The revised milestone target dates do not impact the order implementation dates.

Walk-throughs or demonstrations encompassing all FLEX equipment points of connection/tie-ins for Phase 2 and Phase 3 strategies will be performed as presented in Table 1. A detailed schedule, including target dates, has not been developed.

ATTACHMENT (3)
NMPI 6-MONTH STATUS REPORT
FOR MITIGATION STRATEGIES FOR BEYOND-DESIGN-BASIS EXTERNAL EVENTS

Table 1
Status of NMPI FLEX OIP Milestones

Milestone	Target Completion Date	Activity Status	Revised Target Completion Date
Submit 60 Day Status Report	October 2012	Complete	
Submit Overall Integrated Implementation Plan	February 2013	Complete	
Refueling Outage	Spring 2013	Complete	
6 Month Integrated Plan Progress Report	August 2013	Complete	
Engineering and Design Completion – Equipment Storage Facility	January 2014	Started	March 2014
6 Month Integrated Plan Progress Report	February 2014	Not Started	
Engineering and Design Completion – Portable Equipment Connections	February 2014	Started	August 2014
6 Month Integrated Plan Progress Report	August 2014	Not Started	
6 Month Integrated Plan Progress Report	February 2015	Not Started	
Non-outage Installation – Portable Equipment Connection	March 2015	Not Started	
(Walk-throughs or Demonstrations) Validation walk downs complete	March 2015	Not Started	
Portable Equipment Procedures Changes	March 2015	Not Started	
FLEX Training	April 2015	Not Started	
Outage Installation – Portable Equipment Connections	May 2015 ¹	Not Started	
Equipment Storage Facility Installation	May 2015 ¹	Not Started	
Final Implementation Notification to USNRC	July 2015	Not Started	

Note¹: This is when full implementation is expected to be complete. The subsequent report will only document and notify the NRC as required.

**ATTACHMENT (3)
NMP1 6-MONTH STATUS REPORT
FOR MITIGATION STRATEGIES FOR BEYOND-DESIGN-BASIS EXTERNAL EVENTS**

4 Changes to Compliance Method

Changes were made to the information provided in the OIP that do not change the compliance method with Nuclear Energy Institute NEI 12-06 (Reference 5).

The following is a list of the open items that have been deleted or completed, and of coping strategies that have been changed from the OIP with an explanation of the modifications:

1. General Integrated Plan Elements Boiling Water Reactor (BWR)

Open Item 5: Determine schedule for when Regional Response Centers (RRCs) will be fully operational

This open item is complete. The RRC in Memphis, Tennessee is currently planned to be operational for NMP1 on November 12, 2014.

2. Maintain Spent Fuel Pool Cooling, BWR Portable Equipment Phase 3

Open Item 41: Perform an analysis of Spent Fuel Pool (SFP) cooling system capability for restoration activities. This will be performed considering that the SFP temperatures will be elevated.

This open item is deleted. It is no longer necessary based on the revision in Phase 3 strategies in that Spent Fuel cooling established in Phase 2 provides indefinite coping with injection and re-starting the SFP cooling system is 'recovery' versus 'coping'.

3. Safety Functions Support, BWR Installed Equipment Phase 1

Open Item 43: Perform an analysis to evaluate long term temperature profiles in NMP1 Main Control Room (MCR) under ELAP conditions.

This open item is deleted. It has been concluded that long term temperature profiles in the NMP1 MCR are expected to remain below habitability or equipment design maximum levels as determined through an extrapolation of Station Blackout (SBO) calculations.

4. Safety Functions Support, BWR Portable Equipment Phase 2

Open Item 44: Evaluate requirements and options and develop strategies to maintain MCR habitability after the long-term MCR temperature profile is developed.

This open item is deleted. Based on the conclusions associated with Open Item 43 above, the strategies are no longer necessary. Temperature profiles in the MCR are expected to remain at or below acceptable levels.

ATTACHMENT (3)
NMP1 6-MONTH STATUS REPORT
FOR MITIGATION STRATEGIES FOR BEYOND-DESIGN-BASIS EXTERNAL EVENTS

5. Safety Functions Support, BWR Installed Equipment Phase 1

Open Item 45: Perform an analysis to validate the mild environment in NMP1 Emergency Condenser (EC) Makeup Tank Area during an ELAP (Turbine Building).

This open item is deleted. The NMP1 Emergency Condenser (EC) Makeup Tank Area was previously evaluated as a mild environment for SBO. No conditions are expected during a Beyond-Design-Basis-External Event (BDBEE) that would alter this previous evaluation.

6. Maintain Core Cooling, BWR Installed Equipment Phase 1

Open Item 48: Implement a design change to install a permanent FLEX 600 VAC Diesel Generator (DG) connection point to the 600 VAC power board (PB16B) and an alternative connection for the opposite 600 VAC power board (PB17B)

This open item is deleted. Electrical power strategy has been revised to provide portable DG for DC power directly to the battery bus. This strategy change is explained in more detail below.

7. Maintain Core Cooling, BWR Portable Equipment Phase 2

Open Item 51: Design and implement a modification that will provide a makeup connection to enable a portable pump to refill the Condensate Storage Tanks (CSTs)

This open item is deleted. The strategy for the key safety function of core cooling has been revised such that injection to the Reactor Pressure Vessel (RPV) is via a diesel driven portable pump into the Control Rod Drive (CRD) return line to the RPV. This strategy change is explained in more detail below.

After considerable analysis and evaluation of the original concept to provide electrical power and reactor injection utilizing a DG to a 600 VAC power board and restarting a CRD pump for core cooling in Phase 2, NMP1 determined that this strategy was not feasible to be performed in a timely fashion. The conceptual strategy for providing make up to the reactor by energizing power board 16 or 17 and using a portable DG to restart a CRD pump and the installed station battery charger to maintain DC power has been changed. The new strategy utilizes a diesel driven portable pump to supply water from Lake Ontario to the return line to the vessel in the CRD system (new Open Item 58 added). Electrical power capability for monitoring critical parameters and operating critical DC loads (such as EC isolation valves) will be satisfied via a portable DG to Battery Board 11 (alternate is Battery Board 12) (new Open Item 59 added). Modifications will be implemented to provide these connections to the existing systems. DG sizing, significant barriers regarding the ability to appropriately store and deploy the diesel, and several current design limitations and considerations resulted in the strategy change.

The conceptual FLEX strategies have been revised to include the capability to provide makeup water to the ECs via a diesel driven portable pump during Phase 2 (new Open Item 27 added). This is based on the conclusion that the ability to cope with an event will be significantly enhanced with indefinite EC availability and will maximize the ability to satisfy the key safety function for core cooling and minimize the potential challenges to the key safety function for containment cooling from heat addition. A modification will be installed to provide make up water from Lake Ontario to the EC system via a portable pump thereby providing indefinite capability of the ECs to cool the reactor core. This

**ATTACHMENT (3)
NMP1 6-MONTH STATUS REPORT
FOR MITIGATION STRATEGIES FOR BEYOND-DESIGN-BASIS EXTERNAL EVENTS**

modification will not impact or replace the primary and alternate strategies for core cooling that are independent of EC availability and depend upon portable diesel driven pump injection to the RPV through CRD (primary) and through a Feedwater system connection (Alternate). The capability to add water to the ECs and to maintain EC operation indefinitely abdicates the dependence on the ability to vent the containment. The impact of the new NRC Order EA-13-109 '*Issuance of Order to Modify Licenses with Regard to Reliable Hardened Containment Vents Capable of Operation Under Severe Accident Conditions*' has not been fully evaluated for NMP1. Preliminary conclusions indicate that the vent installation may be delayed and aligned to the required implementation dates in the new Order without impacting FLEX strategies and implementation.

In Phase 3, a modification to remove water from the torus using RRC supplied equipment will be evaluated and implemented as required. This evaluation has been added as new Open Item 61.

In Phase 2 for Spent Fuel cooling, the strategy is to provide for a connection to makeup water to the SFP utilizing a portable diesel driven pump with suction from the intake structure (Lake Ontario) thereby providing indefinite coping capability. In Phase 3, the OIP identified that the restoration of installed plant equipment associated with Spent Fuel cooling (the SFP Cooling System) would be pursued using electrical power (4160 VAC) provided by reenergizing a switchgear with a DG from the RRC. This Phase 3 strategy was categorized as a recovery action versus a coping strategy. Thus, it has been deleted in lieu of continuing the indefinite coping capabilities employed in Phase 2.

The remaining design specifications and requirements of the above modifications and strategy revisions will be determined upon completion of the final design.

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

NMP1 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

Table 2 provides a summary of the open items documented in the OIP or the Draft Safety Evaluation and the status of each item.

**Table 2
Status of NMP1 FLEX OIP Open Items**

Description	Current Status
1. Define criteria for the local (25 mile) staging area.	Started
2. Evaluate deployment strategies and deployment routes for hazard impact.	Not started

**ATTACHMENT (3)
NMP1 6-MONTH STATUS REPORT
FOR MITIGATION STRATEGIES FOR BEYOND-DESIGN-BASIS EXTERNAL EVENTS**

**Table 2
Status of NMP1 FLEX OIP Open Items**

Description	Current Status
3. Evaluate requirements and options and develop strategies related to the storage on site of the FLEX portable equipment (including lighting tools such as flashlights and batteries) in accordance with the requirements of NEI 12-06.	Started
4. Exceptions for the site security plan or other (license/site specific – 10 CFR 50.54x) requirements of a nature requiring NRC approval will be communicated in a future 6-month update following identification.	Started
5. Determine schedule for when RRCs will be fully operational	Complete Memphis RRC is planned to be fully operational for NMP1 on November 12, 2014.
6. Perform an analysis to validate the FLEX equipment ability to deliver sufficient flow under all expected conditions. Flow requirements from the dry hydrants will consider Phase 2 requirements.	Not Started
7. Perform an analysis to validate the FLEX equipment ability to deliver sufficient flow under all expected conditions. Flow requirements from the dry hydrants will consider Phase 3 requirements.	Started
8. Perform calculations and validate assumptions of fuel consumption and replenishment rate to ascertain the time before off-site replenishment is required.	Started
9. Perform an evaluation of the Uninterruptible Power Supply (UPS) strategy and design and implement as required or formalize the use of the small portable gas generators (communication strategies).	Not Started
10. Perform an evaluation of the redundant power strategy for radio repeaters and design and implement modifications or programmatic changes as required.	Not Started
11. Verify plans for the FLEX storage facilities in accordance with NEI 12-06 requirements also accommodate the storage and availability of fuel for the small gas generators.	Started
12. Perform an analysis for feasibility of utilizing the sound powered communications for onsite communications for FLEX strategies.	Not Started

**ATTACHMENT (3)
NMP1 6-MONTH STATUS REPORT
FOR MITIGATION STRATEGIES FOR BEYOND-DESIGN-BASIS EXTERNAL EVENTS**

**Table 2
Status of NMP1 FLEX OIP Open Items**

Description	Current Status
13. Evaluate required consumables and options for storage and availability during an ELAP and implement programmatic controls to ensure required inventory is maintained.	Not Started
14. Establish deployment routes from FLEX equipment storage location to connection points (including hazards impacts).	Not Started
15. Establish a suitable local staging area for portable FLEX equipment to be delivered from the RRC to the site. SAFER Staging Area "C"	Started
16. Establish a suitable local staging area for Phase 3 portable FLEX equipment to be deployed on site. SAFER Staging Area "B"	Started
17. Provide the necessary storage facilities in order to provide fuel to the transfer pumps during an ELAP event.	Not Started
18. Develop site specific playbook for delivery of portable FLEX equipment from the RRC to the site.	Started
19. Develop and implement a program and/or procedures to keep FLEX equipment deployment pathways clear or identify actions to clear the pathways.	Not Started
20. Develop preventive maintenance and testing procedures with frequencies based on Original Equipment Manufacturer (OEM) recommendation and Electric Power Research Institute (EPRI) guidelines for FLEX equipment.	Started
21. Evaluate and implement procedures that direct immediate deployment of Phase 2 equipment during Refueling conditions.	Not Started
22. Purchase and maintain the required equipment to ensure debris removal capability to re-establish deployment routes and transport FLEX portable equipment during all modes of operation.	Not Started
23. Develop procedures/guidelines to address the criteria in NEI 12-06 to support existing symptom based strategies in the Emergency Operating Procedures (EOPs).	Not Started
24. Evaluate potential soil liquefaction for Nine Mile Point site considering final storage location of FLEX portable equipment and deployment routes established for this equipment.	Started

**ATTACHMENT (3)
NMP1 6-MONTH STATUS REPORT
FOR MITIGATION STRATEGIES FOR BEYOND-DESIGN-BASIS EXTERNAL EVENTS**

**Table 2
Status of NMP1 FLEX OIP Open Items**

Description	Current Status
25. Evaluate requirements and options and develop strategies related to the storage and transport of the on-site FLEX portable equipment.	Not Started
26. Evaluate NMP1 containment integrity for Phases 1 through 3 and provide analysis in a future required six-month status report. (New Open Item added since original OIP as a result of further considerations of necessary analysis to support FLEX strategies)	Not Started
27. Implement a design change to install a permanent connection point for a portable pump to provide makeup to the ECs. (New Open Item added as a result of strategy changes described in Section 4)	Not Started
28. Perform an evaluation to ensure that the recirculation pump seal operating conditions are consistent with the referenced vendor test report.	Not Started
29. Perform an analysis of the portable DG to determine it will be capable of supplying all expected battery loads.	Not Started
30. Perform an analysis to determine the flow/capacity needed for the portable pump from the RRC to adequately supply the Emergency Service Water (ESW) system.	Not Started
31. Evaluate the connection point for the RRC portable pump to ESW and implement a design change to ensure that the pump can be connected.	Not Started
32. Evaluate implementation of makeup capability for the Reactor Building Closed Loop Cooling (RBCLC) system expansion tank to support restarting the system in Phase 3.	Not Started
33. Perform an analysis to determine the containment pressure profile during an ELAP / Loss of Ultimate Heat Sink (LUHS) event and verify the instrumentation and controls in containment which are relied upon by the operators are sufficient to perform their intended function.	Not Started
34. Perform a site specific analysis to confirm that the containment parameters (temperature, pressure and level) stay below their design limits during Phase 1 following an ELAP.	Not Started
35. Perform analysis to identify the heat load expected during ELAP conditions and the time required to open vents to maintain containment parameters.	Not Started
36. Perform an analysis to determine when ambient heat losses will be enough to cool the containment with Shutdown Cooling (SDC) in Phase 3.	Not Started
37. Evaluate a strategy to provide a pathway for steam and condensate or justify why it is not needed (for the refuel floor).	Not Started

**ATTACHMENT (3)
NMP1 6-MONTH STATUS REPORT
FOR MITIGATION STRATEGIES FOR BEYOND-DESIGN-BASIS EXTERNAL EVENTS**

**Table 2
Status of NMP1 FLEX OIP Open Items**

Description	Current Status
38. Perform an evaluation to determine the effects and required actions for Spent Fuel Pool temperatures expected above design of 140°F during an ELAP.	Not Started
39. Perform analysis to verify SFP temperature and level after an ELAP event and adequate level for maintaining radiological access to the refuel floor.	Not Started
40. Perform an analysis of Refuel Floor/SFP area for long term environmental conditions.	Not Started
41. Perform an analysis of SFP cooling system capability for restoration activities, considering that the SFP temperatures will be elevated	Deleted See Section 4 for explanation or basis
42. Evaluate the ELAP/FLEX strategy to cope with the potential pressurization of the refueling floor and to prevent buildup of steam and condensation if required.	Not Started
43. Perform an analysis to evaluate long term temperature profiles in NMP1 MCR under ELAP conditions.	Deleted See Section 4 for explanation or basis
44. Evaluate requirements and options and develop strategies to maintain MCR habitability after the long-term MCR temperature profile is developed.	Deleted See Section 4 for explanation or basis
45. Perform an analysis to validate the mild environment in NMP1 Emergency Condenser (EC) Makeup Tank Area during an ELAP (Turbine Building).	Deleted See Section 4 for explanation or basis
46. Perform an analysis for long term environmental conditions in NMP1 Battery Rooms during an ELAP and evaluate any actions to mitigate the impact of hydrogen production as required.	Not Started
47. Perform an analysis of the need for dewatering based on leak rates and flood response capabilities and implement dewatering portable equipment and strategies based on this analysis.	Not Started
48. Implement a design change to install a permanent FLEX 600 VAC DG connection point to the 600 VAC power board (PB16B) and an alternative connection for the opposite 600 VAC power board (PB17B)	Deleted See Section 4 for explanation or basis
49. Implement a design change to install a permanent connection point for FLEX portable pump injection through feed water.	Started

**ATTACHMENT (3)
NMP1 6-MONTH STATUS REPORT
FOR MITIGATION STRATEGIES FOR BEYOND-DESIGN-BASIS EXTERNAL EVENTS**

**Table 2
Status of NMP1 FLEX OIP Open Items**

Description	Current Status
50. Implement a design change to install permanent dry hydrants in the intake structure for FLEX portable pump suction.	Not Started
51. Design and implement a modification that will provide a makeup connection to enable a portable pump to refill the CSTs	Deleted See Section 4 for explanation or basis
52. Evaluate and implement a design change to install permanent generator connection points for 4160 VAC.	Not Started
53. Design and implement a modification that provides for connection of a FLEX portable pump to makeup to the SFP through the return line of the SFP cooling system.	Not Started
54. Develop procedures to implement the connection of a FLEX portable pump to makeup water to the SFP during an ELAP event to include both primary and alternate strategies.	Not Started
55. Revise SBO procedures and ELAP procedures, when written, to direct that both ECs are immediately manually placed in service and to manually close MSIVs (to conserve RPV inventory).	Not Started
56. Implement necessary administrative controls to ensure that appropriate Meter and Test (M&T) temperature equipment is maintained in the MCR for use.	Not Started
57. Perform time validation of the core cooling injection capabilities when detailed design is complete, implementation procedures are drafted and final storage facility locations are determined for the portable equipment.	Not Started
58. Implement a modification to provide a connection into the CRD return line for a portable diesel pump connection. (New Open Item based on strategy change described in Section 4)	Not Started
59. Implement a modification to connect a portable DG and portable battery charger to Battery Board 11 and Battery Board 12. (New Open Item based on strategy change described in Section 4)	Not Started
60. Perform an evaluation in order to identify and implement the capability to provide motive power to restore the SDC system. (New Open Item added after original OIP)	Not started
61. In Phase 3, a modification to remove water from the torus using RRC supplied equipment will be evaluated and implemented as required. (New Open Item based on strategy change described in Section 4)	Not started

**ATTACHMENT (3)
NMP1 6-MONTH STATUS REPORT
FOR MITIGATION STRATEGIES FOR BEYOND-DESIGN-BASIS EXTERNAL EVENTS**

Draft Safety Evaluation Open Item	Status
None	

7 Potential Draft Safety Evaluation Impacts

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

8 Communications Assessment Interim Action Implementation Status

Table 3 provides a listing of the implementing actions documented in the Assessment of Communications during an ELAP (Reference 4). It provides the status of each action, and whether the expected completion date has changed. The dates are planning dates subject to change as design and implementation details are developed.

**Table 3
Status of NMP1 Communications Assessment Interim Actions**

Communications Assessment Implementing Actions	Target Completion Date	Status	Revised Target Completion Date *
Fixed Satellite Phones			
1. Determine the status of existing fixed satellite phone system and antennas in terms of suitability of being "Reasonably Protected."	12/31/2013	Not Started	
2. Install additional antennas as necessary to support the use of fixed satellite phones at all locations. (Emergency Operations Center (EOF) / Joint Information Center (JIC)).	8/31/2014	Not Started	
3. Procure and install fixed satellite phones, additional antennas and uninterruptable power supplies for the Technical Support Center (TSC) / Operational Support Center (OSC), Emergency Operations Facility (EOF), and JIC.	12/31/2014	Not Started	

ATTACHMENT (3)
NMP1 6-MONTH STATUS REPORT
FOR MITIGATION STRATEGIES FOR BEYOND-DESIGN-BASIS EXTERNAL EVENTS

Table 3
Status of NMP1 Communications Assessment Interim Actions

Communications Assessment Implementing Actions	Target Completion Date	Status	Revised Target Completion Date *
<p>4. Develop Standing Order for Interim actions.</p> <p>Standing Order will contain:</p> <ul style="list-style-type: none"> • Description of the communications equipment purchased for enhancement. • Interim storage location of the equipment until final permanent storage is determined. • Conditions describing when equipment will be used. • Instructions for use of the equipment. 	8/31/2013	Started	
5. Determine whether APC UPS 750 is high enough above ground elevation in the On-Site Telephone Building to be protected from flooding.	12/31/2013	Not Started	
6. Relocate two (2) phones from each Control Room to the TSC/OSC and EOF.	8/31/2014	Not Started	
7. Develop/update preventative maintenance and testing procedures for fixed satellite phones.	8/31/2014	Not Started	
8. Provide instructions for use of fixed satellite phones at each location.	12/31/2014	Not Started	
9. Include information on fixed satellite phone locations and usage in procedures.	12/31/2013	Not Started	
Portable Satellite Phones			
1. Stage batteries and chargers in the applicable Emergency Response Organization (ERO) Facilities.	10/31/2013	Started	
2. Update work instructions for portable satellite phone inventory.	10/31/2013	Not Started	

**ATTACHMENT (3)
NMP1 6-MONTH STATUS REPORT
FOR MITIGATION STRATEGIES FOR BEYOND-DESIGN-BASIS EXTERNAL EVENTS**

**Table 3
Status of NMP1 Communications Assessment Interim Actions**

Communications Assessment Implementing Actions	Target Completion Date	Status	Revised Target Completion Date *
3. Develop/update preventive maintenance and testing procedures for portable satellite phones, batteries and chargers.	12/31/2013	Not Started	
4. Include information on portable satellite phone locations and usage in procedures.	12/31/2013	Not Started	
5. Procure and install a high power UPS or similar modification providing backup power for the battery chargers for portable satellite phones	12/31/2014	Not Started	
Communications with Offsite Response Organizations			
1. Provide Oswego County Emergency Operations Center (EOC) and Oswego County Warning Point (WP) instructions for proper storage and rotation of satellite phone batteries.	10/31/2013	Not Started	
Portable Generators			
1. Develop portable generator fueling plan to ensure ability to provide power for a minimum of 24 hours.	12/31/2013	Started	
2. Develop procedures to maintain and test the portable generators.	12/31/2013	Not Started	
3. Update work instructions to inventory portable generators and ensure adequate volume of fuel.	12/31/2013	Not Started	
4. Develop preventive maintenance procedure for portable generators fuel supply.	12/31/2013	Not Started	

**ATTACHMENT (3)
NMP1 6-MONTH STATUS REPORT
FOR MITIGATION STRATEGIES FOR BEYOND-DESIGN-BASIS EXTERNAL EVENTS**

**Table 3
Status of NMP1 Communications Assessment Interim Actions**

Communications Assessment Implementing Actions	Target Completion Date	Status	Revised Target Completion Date *
5. Determine a process for relocating portable generators to the appropriate locations to power the necessary equipment.	Prior to Startup (S/U) NMP1 RFO 2015	Not Started	
Site Radio System			
1. Procure and install a high power UPS or similar modification providing backup power for the radio system repeaters	Prior to S/U NMP1 RFO 2015	Not Started	
2. Complete estimates of portable radio battery life and procure additional batteries as necessary based on an estimate of minimum talk time to ensure 24 hours of operation.	10/31/2013	Started	
Training			
1. Evaluate training needs specific to the use of portable and fixed satellite phones, and radios during an ELAP event.	Prior to S/U NMP1 RFO 2015	Not Started	
2. Develop and implement training on the use of backup generators.	Prior to S/U NMP1 RFO 2015	Not Started	
Note:			
* There are no changes to target completion dates. However, the column labeled Revised Target Completion Date is reserved for future use.			

ATTACHMENT (3)
NMP1 6-MONTH STATUS REPORT
FOR MITIGATION STRATEGIES FOR BEYOND-DESIGN-BASIS EXTERNAL EVENTS

9 References

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

1. Letter from M. G. Korsnick (CENG) to Document Control Desk (NRC), Overall Integrated Plan for Mitigation Strategies for Beyond-Design-Basis External Events, dated February 28, 2013.
2. NRC Order Number EA-12-049, "Order to Modify Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events," dated March 12, 2012.
3. Letter from M.G. Korsnick (CENG) to Document Control Desk (NRC), Supplement to Overall Integrated Plan for Mitigation Strategies for Beyond-Design-Basis External Events, dated March 8, 2013.
4. Letter from M.G. Korsnick (CENG) to Document Control Desk (NRC), Response to NRC Letter on Technical Issues for Resolution Regarding Communication Submittals Associated with Near-Term Task Force Recommendation 9.3, dated February 22, 2013.
5. NEI 12-06, Diverse and Flexible Coping Strategies (FLEX) Implementation Guide, dated August 2012.

ATTACHMENT (4)

**NMP2 6-MONTH STATUS REPORT FOR MITIGATION STRATEGIES
FOR BEYOND-DESIGN-BASIS EXTERNAL EVENTS**

ATTACHMENT (4)
NMP2 6-MONTH STATUS REPORT
FOR MITIGATION STRATEGIES FOR BEYOND-DESIGN-BASIS EXTERNAL EVENTS

1 Introduction

The Nine Mile Point Unit 2 (NMP2) Overall Integrated Plan (OIP) was submitted to the Nuclear Regulatory Commission (NRC) in February 2013 (Reference 1), documenting the diverse and flexible strategies (FLEX), in response to Reference 2. Subsequently, a supplement to the NMP2 OIP for FLEX was submitted to the NRC in March 2013 (Reference 3). This attachment provides an update of milestone accomplishments since submittal of the OIP, including any changes to the compliance method, schedule, or need for relief/relaxation and associated basis (if applicable).

NMP2 developed an Interim Action Implementation Schedule, as part of an Assessment of Communications during an Extended Loss of AC Power (ELAP) (Reference 4). A commitment was made in Reference 4 to include the status of the implementing actions identified in Section 4.12 of the NMP2 communications assessment as part of the six-month status reports prepared pursuant to Section IV.C.2 of NRC Order EA-12-049. The updated status of the communications assessment interim actions is provided in Section 8.

2 Milestone Accomplishments

No milestones other than updates were due to be completed since the development of the OIP (References 1 and 3).

The status information is current as of July 15, 2013.

3 Milestone Schedule Status

Table 1 provides an update to Attachment 2 of the OIP (References 1 and 3). 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. Any changes to the following target completion dates will be reflected in the subsequent 6-month status reports.

The revised milestone target dates do not impact the order implementation dates.

Walk-throughs or demonstrations encompassing all FLEX equipment points of connection/tie-ins for Phase 2 and Phase 3 strategies will be performed as presented in Table 1. A detailed schedule, including target dates, has not been developed.

ATTACHMENT (4)
NMP2 6-MONTH STATUS REPORT
FOR MITIGATION STRATEGIES FOR BEYOND-DESIGN-BASIS EXTERNAL EVENTS

Table 1
Status of NMP2 FLEX OIP Milestones

Milestone	Target Completion Date	Activity Status	Revised Target Completion Date
Submit 60 Day Status Report	October 2012	Complete	
Submit Overall Integrated Implementation Plan	February 2013	Complete	
6 Month Integrated Plan Progress Report	August 2013	Complete	
Engineering and Design Completion – Equipment Storage Facility	January 2014	Started	March 2014
6 Month Integrated Plan Progress Report	February 2014	Not Started	
Refueling outage	April 2014	Not Started	
6 Month Integrated Plan Progress Report	August 2014	Not Started	
Engineering and Design Completion – Portable Equipment Connections	November 2014	Started	
6 Month Integrated Plan Progress Report	February 2015	Not Started	
Equipment Storage Facility installation	June 2015	Not Started	
6 Month Integrated Plan Progress Report	August 2015	Not Started	
Non-outage Installation – Portable Equipment Connection	January 2016	Not Started	
6 Month Integrated Plan Progress Report	February 2016	Not Started	
(Walk-throughs or Demonstrations) Validation walk downs complete	February 2016	Not Started	
Portable Equipment Procedures Changes	March 2016	Not Started	
FLEX Training	March 2016	Not Started	
Refueling outage	April 2016	Not Started	
Outage Installation – Portable Equipment Connections	May 2016 ¹	Not Started	
Final Implementation Notification to USNRC	July 2016	Not Started	

Note¹: This is when full implementation is expected to be complete. The subsequent report will only document and notify the NRC as required.

ATTACHMENT (4)
NMP2 6-MONTH STATUS REPORT
FOR MITIGATION STRATEGIES FOR BEYOND-DESIGN-BASIS EXTERNAL EVENTS

4 Changes to Compliance Method

Changes were made to the information provided in the OIP that do not change the compliance method with Nuclear Energy Institute (NEI) 12-06 (Reference 5).

The following is a list of the open items that have been deleted or completed, and of coping strategies that have been changed from the OIP with an explanation of the modifications:

1. General Integrated Plan Elements Boiling Water Reactor (BWR)

Open Item 5: Determine schedule for when Regional Response Centers (RRCs) will be fully operational

This open item is complete. The RRC in Memphis, Tennessee is currently planned to be operational for spring outage 2016 sites on November 4, 2015.

2. Maintain Core Cooling, BWR Installed Equipment Phase 3

Open Item 40: Perform a load distribution analysis for safety related equipment restoration utilizing either two RRC Diesel Generators (DGs) paralleled on one 4160 VAC bus or one RRC DG on each safety related bus (i.e., one on Division 1 and one on Division 2)

This open item has been deleted. Phase 3 strategies have been revised to accommodate one 4160 VAC diesel generator and the restoration of limited scope items (Residual Heat Removal (RHR) pump for Shutdown Cooling (SDC) and a Service Water (SW) pump if available only). The elimination of the pursuit of restoration of Spent Fuel Pool (SFP) Cooling System and other loads has rendered this open item obsolete to the current strategy.

3. Maintain Core Cooling, BWR Installed Equipment Phase 3

Open Item 41: Perform an analysis to determine the service water cooling water flow needed to accommodate all expected cooling loads and resulting RRC pump size requirement

This open item has been deleted. The cooling water flow through the RHR heat exchanger that provides for adequate cooling based on decay heat is established in current operating design and procedures and does not require a specific and redundant analysis.

4. Safety Functions Support, BWR Installed Equipment Phase 1 and Phase 3

Open Item 45: Perform an analysis to evaluate long term temperature profiles in the NMP2 Main Control Room (MCR) under ELAP condition (Phase 1)

This open item is deleted. NMP2 concluded that long term temperature profiles in the NMP2 MCR are expected to remain below habitability or equipment design maximum levels based on an extrapolation of Station Blackout (SBO) calculations.

ATTACHMENT (4)
NMP2 6-MONTH STATUS REPORT
FOR MITIGATION STRATEGIES FOR BEYOND-DESIGN-BASIS EXTERNAL EVENTS

5. Maintain Spent Fuel Pool Cooling, BWR Installed Equipment Phase 3

Open Item 60: Develop and implement procedures that provide direction for restoration of SFP cooling during ELAP conditions (Phase 3)

This open item is deleted. It is no longer necessary based on the revision in Phase 3 strategies in that SFP Cooling established in Phase 2 provides indefinite coping with injection and re-starting the SFP Cooling System is 'recovery' versus 'coping'.

NRC Order EA-12-050, Issuance of Order to Modify Licenses with Regard to Reliable Hardened Containment Vents has been superseded by Order EA-13-109. Full implementation of Order EA-13-109 is not required until the 2018 refueling outage. In order to support FLEX strategies, a design change to install new containment isolation valves outside the Containment for the purpose of venting the suppression chamber by the end of the 2016 refueling outage (RFO), and to satisfy the new NRC Order requirements is being evaluated. The new valves will have additional back-up pneumatic and electric supplies. A new remote operating location is also to be installed. NMP2 does not anticipate that the implementation schedule for Order EA-13-109 will impact the FLEX implementation schedule. However, the ISG for Order EA-13-109 is not expected to be issued until October 31, 2013. NMP2 will have a better understanding of the impact on FLEX implementation by the February 2014 update.

In Phase 2 for Spent Fuel cooling, the strategy is to provide for a connection to makeup water to the SFP utilizing a portable diesel driven pump with suction from the intake structure (Lake Ontario) thereby providing indefinite coping capability. In Phase 3, the OIP identified that the restoration of installed plant equipment associated with Spent Fuel cooling (the SFP Cooling System) would be pursued using electrical power (4160 VAC) provided by reenergizing a switchgear with a DG from the RRC. This Phase 3 strategy was categorized as a recovery action versus a coping strategy and as such has been deleted in lieu of continuing the indefinite coping capabilities employed in Phase 2.

The remaining design specifications and requirements of the above modifications and strategy revisions will be determined upon completion of the final design.

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

NMP2 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

Table 2 provides a summary of the open items documented in the OIP or the Draft Safety Evaluation and the status of each item.

**ATTACHMENT (4)
NMP2 6-MONTH STATUS REPORT
FOR MITIGATION STRATEGIES FOR BEYOND-DESIGN-BASIS EXTERNAL EVENTS**

**Table 2
Status of NMP2 FLEX OIP Open Items**

NMP2 OIP Open Items	Status
1. Define criteria for the local (25 mile) staging area.	Started
2. Evaluate deployment strategies and deployment routes for hazard impact.	Not Started
3. Evaluate requirements and options and develop strategies related to the storage on site of the FLEX portable equipment (including lighting tools such as flashlights and batteries) in accordance with the requirements of NEI 12-06.	Started
4. Exceptions for the site security plan or other (license/site specific – 10 CFR 50.54x) requirements of a nature requiring NRC approval will be communicated in a future 6-month update following identification.	Started
5. Determine schedule for when RRCs will be fully operational.	Complete Memphis RRC is planned be fully operational for NMP2 on November 4, 2015.
6. Perform an analysis to validate the FLEX equipment ability to deliver sufficient flow under all expected conditions. Flow requirements from the dry hydrants will consider Phase 2 requirements.	Not Started
7. Perform an analysis to validate the FLEX equipment ability to deliver sufficient flow under all expected conditions. Flow requirements from the dry hydrants will consider Phase 3 requirements.	Started
8. Perform calculations and validate assumptions of fuel consumption and replenishment rate to ascertain the time before off-site replenishment is required.	Started
9. Perform an evaluation of the Uninterruptible Power Supply (UPS) strategy and design and implement as required or formalize the use of the small portable gas generators (communication strategies).	Not Started
10. Perform an evaluation of the redundant power strategy for radio repeaters and design and implement modifications or programmatic changes as required.	Not Started
11. Verify plans for the FLEX storage facilities in accordance with NEI 12-06 requirements also accommodate the storage and availability of fuel for the small gas generators.	Started

**ATTACHMENT (4)
NMP2 6-MONTH STATUS REPORT
FOR MITIGATION STRATEGIES FOR BEYOND-DESIGN-BASIS EXTERNAL EVENTS**

**Table 2
Status of NMP2 FLEX OIP Open Items**

NMP2 OIP Open Items	Status
12. Perform an analysis for feasibility of utilizing the sound powered communications for onsite communications for FLEX strategies.	Not Started
13. Evaluate required consumables and options for storage and availability during an ELAP and implement programmatic controls to ensure required inventory is maintained.	Not Started
14. Establish deployment routes from FLEX equipment storage location to connection points (including hazards impacts).	Not Started
15. Establish a suitable local staging area for portable FLEX equipment to be delivered from the RRC to the site. SAFER Staging Area "C"	Started
16. Establish a suitable local staging area for Phase 3 portable FLEX equipment to be deployed on site. SAFER Staging Area "B"	Started
17. Provide the necessary storage facilities in order to provide fuel to the transfer pumps during an ELAP event.	Not Started
18. Develop site specific playbook for delivery of portable FLEX equipment from the RRC to the site.	Started
19. Develop and implement a program and/or procedures to keep FLEX equipment deployment pathways clear or identify actions to clear the pathways.	Not Started
20. Develop preventive maintenance and testing procedures with frequencies based on Original Equipment Manufacturer (OEM) recommendation and Electric Power Research Institute (EPRI) guidelines for FLEX equipment.	Started
21. Evaluate and implement procedures that direct immediate deployment of Phase 2 equipment during Refueling conditions.	Not Started
22. Purchase and maintain the required equipment to ensure debris removal capability to re-establish deployment routes and transport FLEX portable equipment during all modes of operation.	Not Started
23. Develop procedures/guidelines to address the criteria in NEI 12-06 to support existing symptom based strategies in the Emergency Operating Procedures (EOPs).	Not Started

**ATTACHMENT (4)
NMP2 6-MONTH STATUS REPORT
FOR MITIGATION STRATEGIES FOR BEYOND-DESIGN-BASIS EXTERNAL EVENTS**

**Table 2
Status of NMP2 FLEX OIP Open Items**

NMP2 OIP Open Items	Status
24. Evaluate potential soil liquefaction for Nine Mile Point site considering final storage location of FLEX portable equipment and deployment routes established for this equipment.	Started
25. Evaluate requirements and options and develop strategies related to the storage and transport of the on-site FLEX portable equipment.	Not Started
26. Implement a design change to Reactor Core Isolation Cooling (RCIC) that will support operation of the system at elevated Suppression Pool temperatures as identified in GEH 000-0155-1545 (BWROG RCIC Pump and Turbine Durability Evaluation – Pinch Point Study)	Not Started
27. Perform an analysis of long term RCIC Room temperatures (for equipment qualification and habitability) under ELAP conditions considering elevated Suppression Pool and Secondary Containment temperatures.	Not Started
28. Perform an evaluation of containment structures to identify necessary actions to enable implementation of the strategy with running RCIC with elevated temperatures.	Not Started
29. Perform additional plant specific analysis to verify acceptable Suppression Pool levels during a long term operation of RCIC beginning with suction from the Condensate Storage Tanks (CSTs). Verify containment limitations are not exceeded.	Not Started
30. Perform an analysis to verify acceptable parameters (e.g., Net Positive Suction Head (NPSH) requirements) for RCIC operation with the higher temperatures and anticipated changes in Suppression Pool level.	Not Started
31. Perform an analysis to validate containment vent sizing to maintain Suppression Pool parameters to support RCIC capability.	Not Started
32. Perform an analysis to identify necessary actions, (e.g., modifications or programmatic changes) to maximize battery coping time to at least 8 hours.	Not Started
33. Evaluate NMP2 containment integrity for Phases 1 through 3 and update calculations.	Not Started
34. Implement an alternative Containment Cooling strategy, if required, when the analysis of structural temperatures are complete.	Not Started

ATTACHMENT (4)
NMP2 6-MONTH STATUS REPORT
FOR MITIGATION STRATEGIES FOR BEYOND-DESIGN-BASIS EXTERNAL EVENTS

Table 2
Status of NMP2 FLEX OIP Open Items

NMP2 OIP Open Items	Status
35. Perform an analysis to determine the containment pressure profile during an ELAP / Loss of Ultimate Heat Sink (LUHS) event and verify the instrumentation and controls in containment which are relied upon by the operators are sufficient to perform their intended function.	Not Started
36. Perform an analysis to determine when ambient heat losses will be low enough such that with Residual Heat Removal (RHR) in a Phase 3 mode of shutdown cooling, venting of the primary containment will no longer be required.	Not Started
37. Perform an analysis to verify assumptions related to an adequate nitrogen supply during ELAP conditions and revise or provide ELAP procedures that optimize Safety Relief Valve (SRV) control during an ELAP condition.	Not Started
38. Perform an analysis to verify the capability of the portable DG to power all expected loads.	Not Started
39. Perform an analysis to determine the limiting conditions for an RHR loop to be restarted (e.g., RHR room, seals and fluid temperatures) and adjust the strategy to start in Shutdown Cooling (SDC) based on the results of the analysis.	Not Started
40. Perform a load distribution analysis for safety related equipment restoration utilizing either two RRC DGs paralleled on one 4160 VAC bus or one RRC DG on each safety related bus (i.e., one on Division 1 and one on Division 2).	Deleted See Section 4 for explanation or basis
41. Perform an analysis to determine the service water cooling water flow needed to accommodate all expected cooling loads and resulting RRC pump size requirement.	Deleted See Section 4 for explanation or basis
42. Evaluate a strategy to provide a vent pathway for steam and condensate from the SFP or justify why it is not needed.	Not Started
43. Perform an evaluation to determine the effects and required actions for Spent Fuel Pool temperatures expected above design of 150°F during an ELAP.	Not Started
44. Perform analysis to verify SFP temperature and level after an ELAP event and adequate level for maintaining radiological access to the refuel floor.	Not Started
45. Perform an analysis to evaluate long term temperature profiles in the NMP2 MCR under ELAP condition (Phase 1).	Deleted See Section 4 for explanation or basis

**ATTACHMENT (4)
NMP2 6-MONTH STATUS REPORT
FOR MITIGATION STRATEGIES FOR BEYOND-DESIGN-BASIS EXTERNAL EVENTS**

**Table 2
Status of NMP2 FLEX OIP Open Items**

NMP2 OIP Open Items	Status
46. Perform an analysis for long term environmental conditions in the NMP2 Battery Rooms during an ELAP and evaluate any actions to mitigate the impact of this hydrogen production as required.	Not Started
47. Evaluate the strategy for repower of select Emergency Lighting loads when the FLEX portable DG reenergizes the 600 VAC bus.	Not Started
48. Perform an analysis of the light coverage during ELAP conditions and determine if the lighting loads should be re-energized from the non-safety related buses by the RRC FLEX generator.	Not Started
49. Perform an analysis of the need for dewatering based on leak rates and flood response capabilities.	Not Started
50. Implement a design change to install permanent 4160 VAC buss connection points to be able to connect to the RRC supplied DG, including paralleling capability, as required to connect more than one DG to an electrical bus.	Not Started
51. Implement a design change to receive large capacity RRC pumps to supply the service water distribution header.	Not Started
52. Design and implement a modification that provides for connection of a FLEX portable pump to makeup to the SFP.	Not Started
53. Implement a design change to install connections for FLEX portable pumps to RHR for both RHR 'A' and 'B'.	Not Started
54. Implement a design change to install portable generator connections for 600 VAC primary (2EJS*US1) and alternate (2EJS*US3) busses.	Not Started
55. Revise procedures to provide reactor pressure control direction during an ELAP event.	Not Started
56. Develop and implement procedure direction to ensure that the Main Turbine Hydrogen is vented prior to battery depletion.	Not Started
57. Revise current EOPs to implement EOP actions necessary to support the strategy to terminate emergency depressurization to preserve RCIC operation.	Not Started
58. Develop and implement procedures to provide direction for re-energizing the Solenoid Operated Valves (SOVs) and ensuring long term pneumatic supply during an ELAP.	Not Started

**ATTACHMENT (4)
NMP2 6-MONTH STATUS REPORT
FOR MITIGATION STRATEGIES FOR BEYOND-DESIGN-BASIS EXTERNAL EVENTS**

**Table 2
Status of NMP2 FLEX OIP Open Items**

NMP2 OIP Open Items	Status
59. Develop procedures to implement the connection of a FLEX portable pump to makeup water to the SFP during an ELAP event to include both primary and alternate strategies.	Not Started
60. Develop and implement procedures that provide direction for restoration of SFP cooling during ELAP conditions (Phase 3).	Deleted See Section 4 for explanation or basis
61. Implement a design change to install permanent dry hydrants in the intake structure for FLEX portable pump suctions.	Not Started

Draft Safety Evaluation Open Item	Status
None	

7 Potential Draft Safety Evaluation Impacts

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

8 Communications Assessment Interim Action Implementation Status

Table 3 provides a listing of the implementing actions documented in the Assessment of Communications during an ELAP (Reference 4). It provides the status of each action, and whether the expected completion date has changed. The dates are planning dates subject to change as design and implementation details are developed.

**Table 3
Status of NMP2 Communications Assessment Interim Actions**

Communications Assessment Implementing Actions	Target Completion Date	Status	Revised Target Completion Date *
Fixed Satellite Phones			
1. Determine the status of existing fixed satellite phone system and antennas in terms of suitability of being "Reasonably Protected."	12/31/2013	Not Started	

ATTACHMENT (4)
NMP2 6-MONTH STATUS REPORT
FOR MITIGATION STRATEGIES FOR BEYOND-DESIGN-BASIS EXTERNAL EVENTS

Table 3
Status of NMP2 Communications Assessment Interim Actions

Communications Assessment Implementing Actions	Target Completion Date	Status	Revised Target Completion Date *
2. Install additional antennas as necessary to support the use of fixed satellite phones at all locations. (Emergency Operations Facility (EOF) / Joint Information Center (JIC)).	8/31/2014	Not Started	
3. Procure and install fixed satellite phones, additional antennas and uninterruptable power supplies for the Technical Support Center (TSC) / Operational Support Center (OSC), EOF, and JIC.	12/31/2014	Not Started	
4. Develop Standing Order for Interim actions. Standing Order will contain: <ul style="list-style-type: none"> • Description of the communications equipment purchased for enhancement. • Interim storage location of the equipment until final permanent storage is determined. • Conditions describing when equipment will be used. • Instructions for use of the equipment. 	8/31/2013	Started	
5. Determine whether APC UPS 750 is high enough above ground elevation in the On-Site Telephone Building to be protected from flooding.	12/31/2013	Not Started	
6. Relocate two (2) phones from each Control Room to the TSC/OSC and EOF.	8/31/2014	Not Started	
7. Develop/update preventative maintenance and testing procedures for fixed satellite phones.	8/31/2014	Not Started	

ATTACHMENT (4)
NMP2 6-MONTH STATUS REPORT
FOR MITIGATION STRATEGIES FOR BEYOND-DESIGN-BASIS EXTERNAL EVENTS

Table 3
Status of NMP2 Communications Assessment Interim Actions

Communications Assessment Implementing Actions	Target Completion Date	Status	Revised Target Completion Date *
8. Provide instructions for use of fixed satellite phones at each location.	12/31/2014	Not Started	
9. Include information on fixed satellite phone locations and usage in procedures.	12/31/2013	Not Started	
Portable Satellite Phones			
1. Stage batteries and chargers in the applicable Emergency Response Organization (ERO) Facilities.	10/31/2013	Started	
2. Update work instructions for portable satellite phone inventory.	10/31/2013	Not Started	
3. Develop/update preventive maintenance and testing procedures for portable satellite phones, batteries and chargers.	12/31/2013	Not Started	
4. Include information on portable satellite phone locations and usage in procedures.	12/31/2013	Not Started	
5. Procure and install a high power UPS or similar modification providing backup power for the battery chargers for portable satellite phones	12/31/2014	Not Started	
Communications with Offsite Response Organizations			
1. Provide Oswego County Emergency Operations Center (EOC) and Oswego County Warning Point (WP) instructions for proper storage and rotation of satellite phone batteries.	10/31/2013	Not Started	
Portable Generators			
1. Develop portable generator fueling plan to ensure ability to provide power for a minimum of 24 hours.	12/31/2013	Started	

ATTACHMENT (4)
NMP2 6-MONTH STATUS REPORT
FOR MITIGATION STRATEGIES FOR BEYOND-DESIGN-BASIS EXTERNAL EVENTS

Table 3
Status of NMP2 Communications Assessment Interim Actions

Communications Assessment Implementing Actions	Target Completion Date	Status	Revised Target Completion Date *
2. Develop procedures to maintain and test the portable generators.	12/31/2013	Not Started	
3. Update work instructions to inventory portable generators and ensure adequate volume of fuel.	12/31/2013	Not Started	
4. Develop preventive maintenance procedure for portable generators fuel supply.	12/31/2013	Not Started	
5. Determine a process for relocating portable generators to the appropriate locations to power the necessary equipment.	Prior to Startup (S/U) NMP2 RFO 2016	Not Started	
Site Radio System			
1. Procure and install a high power UPS or similar modification providing backup power for the radio system repeaters	Prior to S/U NMP2 RFO 2016	Not Started	
2. Complete estimates of portable radio battery life and procure additional batteries as necessary based on an estimate of minimum talk time to ensure 24 hours of operation.	10/31/2013	Started	
Training			
1. Evaluate training needs specific to the use of portable and fixed satellite phones, and radios during an ELAP event.	Prior to S/U NMP2 RFO 2016	Not Started	
2. Develop and implement training on the use of backup generators.	Prior to S/U NMP2 RFO 2016	Not Started	
Note: * There are no changes to target completion dates. However, the column labeled Revised Target Completion Date is reserved for future use.			

ATTACHMENT (4)
NMP2 6-MONTH STATUS REPORT
FOR MITIGATION STRATEGIES FOR BEYOND-DESIGN-BASIS EXTERNAL EVENTS

9 References

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

1. Letter from M. G. Korsnick (CENG) to Document Control Desk (NRC), Overall Integrated Plan for Mitigation Strategies for Beyond-Design-Basis External Events, dated February 28, 2013.
2. NRC Order Number EA-12-049, "Order to Modify Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events," dated March 12, 2012.
3. Letter from M.G. Korsnick (CENG) to Document Control Desk (NRC), Supplement to Overall Integrated Plan for Mitigation Strategies for Beyond-Design-Basis External Events, dated March 8, 2013.
4. Letter from M.G. Korsnick (CENG) to Document Control Desk (NRC), Response to NRC Letter on Technical Issues for Resolution Regarding Communication Submittals Associated with Near-Term Task Force Recommendation 9.3, dated February 22, 2013.
5. NEI 12-06, Diverse and Flexible Coping Strategies (FLEX) Implementation Guide, dated August 2012.