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NRC Order No. EA-12-049

FLL-14-028

August 26, 2014

U.S. Nuclear Regulatory Commission
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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

Subject: August 2014 Six-Month Status Report in Response to March 12, 2012 Commission Order Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events (Order Number EA-12-049)

References:
(1) 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)

(2) 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 (ML13066A710)

(3) Letter from B. K. Vaidya (NRC) to C. Costanzo (CENG), Nile Mile Point Nuclear Station, Unit Nos. 1 and 2 – Staff Assessment in Response to Recommendation 9.3 of the Near-Term Task Force Related to the Fukushima Dai-ichi Nuclear Power Plant Accident (TAC Nos. ME9970 and ME9971), dated April 24, 2013 (ML13100A236)

On March 12, 2012, the Nuclear Regulatory Commission (NRC) issued Order EA 12-049 (Reference 1) to Constellation Energy Nuclear Group, LLC (CENG) for Nile Mile Point Nuclear Station, LLC (NMPNS), Units 1 and 2 (NMP1 and NMP2). Reference (1) requires submission of a status report at six-month intervals following submittal of the overall integrated plan. Attachments (1) and (2) provide the six-month Status Reports for NMP1 and NMP2, respectively. The report updates the milestone accomplishments since the submittal of the last status report, including any changes to the compliance method, schedule, or need for relief and the basis, if any.

In Reference (2), NMPNS committed to include the status of the implementing actions identified in Section 4.12 of the Communications Assessment as part of the six-month status reports

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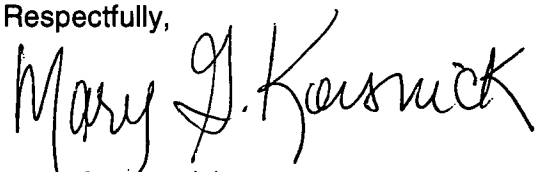
required by Section IV.C.2 of NRC Order EA-12-049. Attachment (1) includes an update of the status of these implementing actions. This will be the last status update for those actions. Future six-month status reports submitted in accordance with Section IV.C.2 of NRC Order EA-12-049 will not include a status of the implementing actions identified in Section 4.12 of the Communications Assessment, as these updates have negligible safety significance. Thus, this letter deletes the regulatory commitment made in Reference (2). As documented in Reference (3), the regulatory commitments to implement the NMP1 and NMP2 improvements related to mitigating strategies (FLEX) derived from the results of the communications assessment will be completed: a) prior to the startup of NMP1 following the Spring 2015 refueling outage; and b) prior to the startup of NMP2 following the Spring 2016 refueling outage.

There are no regulatory commitments contained in this letter.

If there are any questions regarding this letter, please contact Bruce Montgomery, Acting Manager - Licensing, at 443-532-6533.

I declare under penalty of perjury that the foregoing is true and correct. Executed on the 26th day of August, 2014.

Respectfully,



Mary G. Korsnick

MGK/STD

Attachments

(1) NMP1 Six-Month Status Report (August 2014) for Mitigation Strategies for Beyond-Design-Basis External Events

(2) NMP2 Six-Month Status Report (August 2014) for Mitigation Strategies for Beyond-Design-Basis External Events

cc: Regional Administrator, Region I, USNRC
NRC Project Manager, NRR – Nile Mile Point Nuclear Station
NRC Senior Resident Inspector – Nile Mile Point Nuclear Station
Director, Office of Nuclear Reactor Regulation
J. A. Kratchman, NRC
S. Gray, DNR

ATTACHMENT (1)

NMP1 SIX-MONTH STATUS REPORT (AUGUST 2014)

FOR MITIGATION STRATEGIES FOR

BEYOND-DESIGN-BASIS EXTERNAL EVENTS

NINE MILE POINT NUCLEAR STATION, LLC
August 26, 2014

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 NRC Order Number EA-12-049 (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 last status report including any changes to the compliance method, schedule, or need for relief/relaxation and the 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. However, the six month communications assessment interim actions updates are not required by any related NRC Order or endorsed guidance for Beyond-Design-Basis External Events. Nine Mile Point continues to work on implementation plans associated with meeting the guidance in NEI 12-06 (Reference 5) and recognizes the close coordination and relationship to the guidance in NEI 12-01 Guidelines for Assessing Beyond Design Basis Accident Response Staffing and Communications Capabilities. Communications plan interim action status updates will no longer be included in the FLEX Six Month Updates following this edition. This reduction in commitment will align the Exelon Northeast sites (former CENG sites) with the rest of the fleet.

Since the submittal of the last status report in February 2014 (Reference 8), NMP1 FLEX has progressed with engineering analysis and calculations that support the mitigating strategies and the modification concepts have been refined. Some changes to the mitigation strategies and planned modifications in support of the mitigation strategies have occurred and are explained within this document. Work with the Strategic Alliance for FLEX Emergency Response (SAFER) has continued, with review of proposed supporting equipment specifications to allow regional center equipment purchases to commence, and initial development of the site specific SAFER Response Plan has begun.

By letter dated December 19, 2013, the NRC issued to CENG the Nine Mile Point Nuclear Station, Units 1 and 2 – Interim Staff Evaluation Relating to Overall Integrated Plan in Response to Order EA-12-049 (Mitigation Strategies) (TAC Nos. MF 1129 and MF 1130) (Reference 7). The Interim Staff Evaluation (ISE) contains open and confirmatory items for which CENG will provide clarifying or additional information in Six Month Status Reports in order for the NRC to determine that the issues are on a path to satisfactory resolution.

2 Milestone Accomplishments

The following milestone(s) have been completed since the development of the OIP (Reference 3) and are current as of July 15, 2014.

- Refueling Outage (RFO), including walk downs in support of pending modifications for installation for FLEX strategies (see status provided in 8/2013 OIP Update)
- Six Month Integrated Plan Progress Report submitted (Reference 6)
- Six Month Integrated Plan Progress Report submitted (Reference 8)

3 Milestone Schedule Status

Table 1 provides an update to Attachment 2 of the NMP1 OIP (Attachment 2 - 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 Six Month Status Reports.

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

Table 1
Status of NMP1 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	
Six Month Integrated Plan Progress Report	August 2013	Complete	
Engineering and Design Completion – Equipment Storage Facility	January 2014	Started	November 2014[1]
Six Month Integrated Plan Progress Report	February 2014	Complete	
Engineering and Design Completion – Portable Equipment Connections	February 2014	Started	August 2014
Six Month Integrated Plan Progress Report	August 2014	Complete	

Table 1
Status of NMP1 FLEX OIP Milestones (cont'd)

Milestone	Target Completion Date	Activity Status	Revised Target Completion Date
Six Month Integrated Plan Progress Report	February 2015	Not Started	
Non-Outage Installation – Portable Equipment Connection	March 2015	Not Started	
Validation Walkdowns Complete	March 2015	Not Started	
Portable Equipment Procedures Changes	March 2015	Started	
FLEX Training	April 2015	Not Started	
Outage Installation – Portable Equipment Connections	May 2015	Not Started	
Equipment Storage Facility Installation	May 2015	Not Started	
Final Implementation Notification to USNRC	July 2015	Not Started	

Note 1: Revised from previous NMP1 Six Month Status Report which identified July 2014. Building design supporting the start of construction in August has been completed. Design supporting building services and security access will be completed in November 2014. Overall completion to the Milestone for 'Equipment Storage Facility Installation' remains unaffected.

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) and were provided in the last Six Month Status Report. NMP1 will incorporate the supplemental guidance provided in the NEI position paper entitled "Shutdown / Refueling Modes" to enhance the shutdown risk process and procedures (References 9 and 10).

The following coping strategy changes have occurred since the previous Six Month Status Update provided on February 28, 2014 (Reference 8)

- Calculations have been completed that provide evaluation of the environmental conditions in the Reactor Building, including the refueling floor, after an event. The calculation demonstrates that opening various Reactor Building air lock doors and Turbine Building doors/side wall vents during an ELAP event will minimize the temperature/pressure rise in the Reactor Building and the long term environmental conditions are acceptable.

- No modifications will be installed to support mitigating strategies for Phase 3. The connection of the majority of Phase 3 equipment will be made to connection points established for Phase 2 equipment and strategies. Resources will be available, and sufficient, at the times required for Phase 3 implementation. The remaining Phase 3 non-redundant equipment will be deployed utilizing field established connections, without the reliance on plug and play type modifications.

- The original concept for a suction source for all portable pumps was to install a dry hydrant in the intake structure. This has been modified to provide access ports through the north wall of the Screenhouse Building, through which flexible suction hoses will be fed, and dropped into the intake/discharge bays inside the Screenhouse Building. **This change results in minor wording changes to Open Items 6, 7 and 50.**

The last NMP1 FLEX Six Month Update (Reference 8) identified the following strategy change for Spent Fuel Pool (SFP) makeup capability:

> *"The NMP1 OIP (Reference 3) description of the primary connection modification for SFP makeup and preliminary drawings associated with the makeup water capability for the SFP identified that there would be a hard pipe tied into the SFP cooling system return line. This has changed in that the primary injection point for makeup to the SFP will instead be routed to the refueling floor such that it will discharge directly into the SFP. Hard pipe will be routed to the refueling floor and a connection point added. A hose will be connected at that point and be routed to the SFP and secured so that it discharges into the SFP. This change eliminates the need to modify the existing safety related SFP cooling system and utilizes existing floor penetrations in order to run the piping to the SFP and achieve the same result.* ***For this reason, Open Item 53 in Table 2 has been revised to remove the wording that identified that makeup to the SFP would be connected to the SFP cooling system return line."***

This strategy has been refined further in that hard piping will now be installed from the floor below to the refueling floor and directed to discharge into the SFP. Hose will be connected at that point (below the Refueling Floor) which is routed from the Reactor Building track bay on the ground floor and connected to the FLEX pump water supply. This change to the strategy was made in order to comply with the specific guidance in NEI 12-06 Table C-3 to "...provide a means to supply SFP makeup without accessing the refueling floor."

Remaining design specifications and requirements 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 and those added in any subsequent Six Month Status Reports and the status of each item.

The following is a list of the open items from the OIP that have been added, deleted or completed since the last Six Month Status Report with an explanation of the changes:

1. **Maintain Core Cooling - BWR Portable Equipment Phase 2**

   Open Item #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.

   This item is **deleted**. Open Item # 6 specifically addresses the necessary analysis for Phase 2. Phase 2 strategies will provide sufficient capabilities to maintain or restore key safety functions for at least 72 hours. Placing additional equipment in service to support restart of plant equipment (such as Shutdown Cooling) is not necessary to support indefinite coping, is considered to be part of plant recovery, and is therefore not within the scope of the mitigating strategies.

2. **Safety Function Support - BWR Portable Equipment Phase 2**

   Open Item 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.

   This item is **complete.** An Exelon fleet design specification has been developed, including all applicable Nine Mile Point site specific design requirements. Robust structure design work is complete, including those drawings, specifications and calculations that allow for construction to begin and space for the storage of the small gas generators and the fuel for them within the building. All FLEX equipment, including combustible material cabinets and fuel cans for refueling portable generators will be stored in the FLEX storage structure.

   Open Item #40: Perform an analysis of Refuel Floor/SFP area for long term environmental conditions.

   This item is **complete.** Calculation S0-GOTHIC-ELAP001 "Reactor Building Response Following an Extended Loss of AC Power" has been completed. The calculation demonstrates that opening various Reactor Building air lock doors and Turbine Building doors/side wall vents during an ELAP event will minimize the temperature/pressure rise in the Reactor Building and the long term environmental conditions are acceptable.

Open Item # 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.

This item is **deleted.** The following is provided in the original OIP; "Note that this is not a required strategy for core, containment or spent fuel pool cooling but for the long term consideration of normalization of plant systems." Based on this, there is no need for dewatering actions to be planned within the scope of the mitigating strategies.

3. **Maintain Core Cooling - BWR Portable Equipment Phase 3**

Open Item # 30 and # 31: # 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, and# 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.

These items are **deleted.** Phase 2 strategies are adequate to maintain or restore key safety functions for at least 72 hours. Placing ESW in service to support the restart of Reactor Building Closed Loop Cooling is considered to be part of plant recovery and is therefore not within the scope of the mitigating strategies.

Open Item # 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.

This item is **deleted.** Phase 2 strategies are adequate to maintain or restore key safety functions for at least 72 hours. Placing Reactor Building Closed Loop Cooling in service is considered to be part of plant recovery and is therefore not within the scope of the mitigating strategies.

Open Item # 52: Evaluate and implement a design change to install permanent generator connection points for 4160 VAC.

This item is **deleted.** Phase 1 and 2 strategies provide sufficient capabilities to maintain or restore key safety functions for at least 72 hours. Connecting a RRC 4160 VAC generator to a safety related bus will only be performed as needed to support recovery and is therefore not within the scope mitigating strategies.

4. **Maintain Containment - BWR Portable Equipment Phase 3**

Open Item # 36: Perform an analysis to determine when ambient heat losses will be enough to cool the containment with Shutdown Cooling (SDC) in Phase 3.

This item is **deleted.** Containment analysis provides that Phase 2 strategies are adequate to maintain or restore key safety functions for at least 72 hours. Placing SDC in service is considered to be part of plant recovery and is therefore not within the scope of the mitigating strategies.

Open Item # 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 subsequent to original OIP submittal and described in the August 2013 Six Month Update).

This item is **deleted:** Phase 2 strategies are adequate to maintain or restore key safety functions for at least 72 hours. Placing SDC in service is considered to be part of plant recovery and is therefore not within the scope of the mitigating strategies.

Open item # 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 changes described in the August 2013 Six Month Update).

This item is **deleted:** Phase 2 strategies are adequate to maintain or restore key safety functions for at least 72 hours. Containment response analysis identifies that Torus water level is satisfactory and therefore dewatering the Torus is considered to be part of plant recovery and is therefore not within the scope of the mitigating strategies.

5. **Maintain Containment - BWR Installed Equipment Phase 1**

Open Item # 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.

This item is **complete**. Calculation S0-GOTHIC-ELAP002 "Primary Containment Response Following an Extended Loss of AC Power" has been completed. The calculation demonstrates that the primary containment parameters (temperature, pressure, level) remain essentially at or below their design limits during Phases 1 and 2 following an ELAP for at least 72 hours.

6. **Maintain Spent Fuel Pool Cooling - BWR Installed Equipment Phase 1**

Open Item #37: Evaluate a strategy to provide a pathway for steam and condensate or justify why it is not needed (for the refuel floor).

This item is **complete.** Calculation S0-GOTHIC-ELAP001 "Reactor Building Response Following an Extended Loss of AC Power" has been completed. The calculation demonstrates that by opening various Reactor Building air lock doors and Turbine Building doors/side wall vents during an ELAP event will minimize the temperature/pressure rise in the Reactor Building and the long term environmental conditions are acceptable.

Open Item # 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.

This item is **complete**. Calculation S0-GOTHIC-ELAP001 "Reactor Building Response Following an Extended Loss of AC Power" has been completed. The calculation demonstrates that by opening various Reactor Building air lock doors and Turbine

Building doors/side wall vents during an ELAP event will minimize the temperature/pressure rise in the Reactor Building and the long term environmental conditions are acceptable.

Table 2
Status of NMP1 FLEX OIP Open Items

NMP1 OIP Open Items	Status
1. Define criteria for the local (25 mile) staging area	**Complete** (see the 2/2014 OIP Update)
2. Evaluate deployment strategies and deployment routes for hazard impact	Started (2/2014)
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 (8/2013)
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 Six Month Update following identification	Started (8/2013)
5. Determine schedule for when Regional Response Centers (RRC) will be fully operational	**Complete** (see the 8/2013 OIP Update)
6. Perform an analysis to validate the FLEX equipment ability to deliver sufficient flow under all expected conditions. Flow requirements from the intake/discharge bays will consider Phase 2 requirements	Started (2/2014)
7. Perform an analysis to validate the FLEX equipment ability to deliver sufficient flow under all expected conditions. Flow requirements from the intake/discharge bays will consider Phase 3 requirements	**Deleted** (this OIP Update 8/2014)
8. Perform calculations and validate assumptions of fuel consumption and replenishment rate to ascertain the time before off-site replenishment is required	Started (8/2013)
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)	Started (2/2014)
10. Perform an evaluation of the redundant power strategy for radio repeaters and design and implement modifications or programmatic changes as required	Started (2/2014)
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	**Complete** (this OIP Update 8/2014)

Table 2
Status of NMP1 FLEX OIP Open Items (cont'd)

NMP1 OIP Open Items	Status
12. Perform an analysis for feasibility of utilizing the sound powered communications for onsite communications for FLEX strategies	Started (2/2014)
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 hazard impacts)	Started (2/2014)
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 (8/2013)
16. Establish a suitable local staging area for Phase 3 portable FLEX equipment to be deployed on site SAFER Staging Area "B"	Started (8/2013)
17. Provide the necessary storage facilities in order to provide fuel to the transfer pumps during an ELAP event	Started (8/2014)
18. Develop site specific SAFER Response Plan (playbook) for delivery of portable FLEX equipment from the RRC to the site	Started (8/2013)
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 (8/2013)
21. Evaluate and implement procedures that direct immediate deployment of Phase 2 equipment during refueling conditions	Started (2/2014)
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	Started (8/2014)
23. Develop procedures/guidelines to address the criteria in NEI 12-06 to support existing symptom based strategies in the Emergency Operating Procedures (EOPs)	Started (2/2014)
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 (8/2013)
25. Evaluate requirements and options and develop strategies related to the storage and transport of the on-site FLEX portable equipment	Started (2/2014)

Table 2
Status of NMP1 FLEX OIP Open Items (cont'd)

NMP1 OIP Open Items	Status
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)	**Added** (see the 8/2013 OIP Update) Started
27. Implement a design change to install a permanent connection point for a portable pump to provide makeup to the Emergency Condensers (ECs) (new Open Item added as a result of strategy changes described in the August 2013 Six Month Update)	**Added** (see the 8/2013 OIP Update) Started
28. Perform an evaluation to ensure that the recirculation pump seal operating conditions are consistent with the referenced vendor test report	Started (8/2014)
29. Perform an analysis of the portable generator to determine if it will be capable of supplying all expected battery loads	Started (2/2014)
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	**Deleted** (this OIP Update 8/2014)
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	**Deleted** (this OIP Update 8/2014)
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	**Deleted** (this OIP Update 8/2014)
33. Perform an analysis to determine the containment pressure profile during an ELAP / LUHS event and verify the instrumentation and controls in containment which are relied upon by the operators are sufficient to perform their intended function	Started (8/2014)
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	**Completed** (this OIP Update 8/2014)
35. Perform analysis to identify the heat load expected during ELAP conditions and the time required to open vents to maintain containment parameters	Started (2/2014)

Table 2
Status of NMP1 FLEX OIP Open Items (cont'd)

NMP1 OIP Open Items	Status
36. Perform an analysis to determine when ambient heat losses will be enough to cool the containment with Shutdown Cooling (SDC) in Phase 3	**Deleted** (this OIP Update 8/2014)
37. Evaluate a strategy to provide a pathway for steam and condensate or justify why it is not needed (for the refuel floor)	**Completed** (this OIP Update 8/2014)
38. Perform an evaluation to determine the effects and required actions for Spent Fuel Pool temperatures expected above design of 140^0F during an ELAP	Started (2/2014)
39. Perform analysis to verify SFP temperature and level after an ELAP event and adequate level for maintaining radiological access to the refuel floor	Started (2/2014)
40. Perform an analysis of Refuel Floor/SFP area for long term environmental conditions	**Completed** (this OIP Update 8/2014)
41. Perform an analysis of SFP cooling system capability for restoration activities, will be performed considering that the SFP temperatures will be elevated	**Deleted** (see the 8/2013 OIP Update)
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	**Completed** (this OIP Update 8/2014)
43. Perform an analysis to evaluate long term temperature profiles in NMP1 Main Control Room (MCR) under ELAP conditions	**Deleted** (see the 8/2013 OIP Update)
44. Evaluate requirements and options and develop strategies to maintain MCR habitability after the long-term MCR temperature profile is developed	**Deleted** (see the 8/2013 OIP Update)
45. Perform an analysis to validate the mild environment in NMP1 EC Makeup Tank Area during an ELAP (Turbine Building)	**Deleted** (see the 8/2013 OIP Update)
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 this hydrogen production as required.	**Complete** (see the 2/2014 OIP Update)

Table 2
Status of NMP1 FLEX OIP Open Items (cont'd)

NMP1 OIP Open Items	Status
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	**Deleted** (this OIP Update 8/2014)
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)	**Deleted** (see the 8/2013 OIP Update)
49. Implement a design change to install a permanent connection point for FLEX portable pump injection through feed water	Started (8/2013)
50. Implement a design change to provide suction hose access points in the intake/discharge structures for FLEX portable pump suction	Started (2/2014)
51. Design and implement a modification that will provide a makeup connection to enable a portable pump to refill the Condensate Storage Tanks (CSTs)	**Deleted** (see the 8/2013 OIP Update)
52. Evaluate and implement a design change to install permanent generator connection points for 4160 VAC	**Deleted** (this OIP Update 8/2014)
53. Design and implement a modification that provides for connection of a FLEX portable pump to makeup to the SFP	Started (2/2014)
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	Started (8/2014)
55. Revise Station Blackout (SBO) procedures and ELAP procedures, when written, to direct that both EC's are immediately manually placed in service and to manually close Main Steam Isolation Valves (MSIVs) (to conserve RPV inventory)	Started (8/2014)
56. Implement necessary administrative controls to ensure that appropriate Meter and Test (M&T) temperature equipment is maintained in the Main Control Room (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

Table 2
Status of NMP1 FLEX OIP Open Items (cont'd)

NMP1 OIP Open Items	Status
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 changes described in the August 2013 Six Month Update)	**Added** (see the 8/2013 OIP Update) Started (2/2014)
59. Implement a modification to connect a portable diesel generator and portable battery charger to battery 11 and battery 12 (new Open Item based on strategy changes described in the August 2013 Six Month Update)	**Added** (see the 8/2013 OIP Update) Started (2/2014)
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 subsequent to original OIP submittal and described in the August 2013 Six Month Update)	**Deleted** (this OIP Update 8/2014)
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 changes described in the August 2013 Six Month Update)	**Deleted** (this OIP Update 8/2014)

Table 3 provides a summary of the open and confirmatory items documented in the NRC's NMP1 ISE (Reference 7) and the status of each item. The following is a list of NMP1 ISE Open or Confirmatory Items Submitted for Closure.

ISE Confirmatory Items 6 through 10 identifies various NRC issues that revolve around the use of MAAP for analysis.

ISE Confirmatory Items 6 – 10 are **submitted for closure**. NMP1 has a design basis Appendix R analysis (S22.2-XX-EOP001) that provides a design verified reactor water level response assuming a 45 gpm leakage at rated pressure. The analysis uses safety related GEH software qualified to perform LOCA analyses. This analysis has been reviewed and the assumptions are consistent with the conditions required to evaluate the FLEX coping strategy. Based on the review of this calculation, the time to reach Top of Active Fuel (TAF) is defined and the FLEX coping strategy was developed. The MAAP software is not required to evaluate the FLEX strategy or to define the reactor water level response. The Unit 1 MAAP Probabilistic Risk Assessment (PRA) model has been used as a benchmark to the design basis Appendix R analysis and the MAAP PRA model provide consistent results when similar assumptions are applied.

ISE Confirmatory Item # 12: ISE Confirmatory Item 3.2.3.A – The licensee has yet to evaluate containment integrity for Phases 1 through 2 and provide the finalized analysis for review.

ISE Confirmatory Item # 12 is **submitted for closure**. This item is addressed with NMP1 OIP Open Item #34 which has been completed. Calculation S0-GOTHIC-ELAP002 "Primary Containment Response Following an Extended Loss of AC Power" has been completed. The calculation demonstrates that the primary containment parameters (temperature, pressure, level) remain essentially at or below their design limits during Phases 1 and 2 following an ELAP for at least 72 hours.

ISE Confirmatory Item # 13: ISE Confirmatory Item 3.2.3.B – A modification to remove water from the torus in Phase 3 using RRC supplied equipment will be evaluated and implemented as required.

ISE Confirmatory Item # 13 is **submitted for closure**. This item is addressed with NMP1 OIP Open Item #61 which has been deleted. Phase 2 strategies are adequate to maintain or restore key safety functions for at least 72 hours. Containment response analysis identifies that Torus water level is satisfactory and therefore actions to dewater the Torus that support indefinite coping are to be put in place by the support staff during Phase 2 before being required for Phase 3.

ISE Confirmatory Item # 14: ISE Confirmatory Item 3.2.4.2.A – Evaluation of the refueling floor SFP area for steam and condensation was not yet completed. Mitigating strategies, including establishing a vent pathway for steam and condensate from the area, were not discussed in the Integrated Plan or during the audit process.

ISE Confirmatory Item # 14 is **submitted for closure**. This item is addressed with NMP1 OIP Open Item #37 which has been completed. Calculation S0-GOTHIC-ELAP001 "Reactor Building Response Following an Extended Loss of AC Power" has been completed. The calculation demonstrates that opening various Reactor Building doors and Turbine Building doors/side wall vents in response to the ELAP event are necessary and will ensure that the temperature/pressure rise in the Reactor Building and the long term environmental conditions are acceptable.

Table 3
Status of NMP1 Interim Staff Evaluation (ISE) Open and Confirmatory Items

	ISE Open Items	Status
1.	**ISE Open Item 3.1.1.3.A** – Seismic procedural interface consideration NEI 12-06, Section 5.3.3, Consideration 1, which considers the possible failure of seismically qualified electrical equipment by beyond-design-basis seismic events, was not discussed in the Integrated Plan or during the audit process	Started (8/2014)
2.	**ISE Open Item 3.2.1.3.A** – The coping strategies for maintaining core cooling were updated in the August 27, 2013 Six Month Update. However, the licensee has not yet updated the sequence of events timeline and the discussion of time constraints	Started (8/2014)
	ISE Confirmatory Items	**Status**
3.	**ISE Confirmatory Item 3.1.1.1.A** – The design of the storage facility for FLEX equipment is under development. The method selected for protection of equipment during a Beyond-Design-Basis External Event (BDBEE) was not discussed in the Integrated Plan or during the audit process. Also, there was no discussion of securing large portable equipment for protection during a seismic hazard	Started (2/2014)
4.	**ISE Confirmatory Item 3.1.1.2.A** – Deployment routes have not yet been finalized or reviewed for possible impacts due to debris and potential soil liquefaction. Movement of equipment and procedural interfaces during a BDBEE were not discussed in the Integrated Plan or during the audit process	Started (2/2014)
5.	**ISE Confirmatory Item 3.1.1.4.A** – Utilization of offsite resources, the local staging area, and the method to deliver the FLEX equipment to the site were not discussed in the context of impacts of BDBEEs in the Integrated Plan or during the audit process	Started (2/2014)
6.	**ISE Confirmatory Item 3.2.1.1.A** – MAAP benchmarks must be identified and discussed which demonstrate that MAAP4 is an appropriate code for the simulation of an ELAP event	**Submitted for closure** (8/2014)
7.	**ISE Confirmatory Item 3.2.1.1.B** – MAAP Analysis-collapsed level must remain above Top of Active Fuel (TAF) and the cool down rate must be within technical specification limits	**Submitted for closure** (8/2014)

Table 3
Status of NMP1 Interim Staff Evaluation (ISE) Open and Confirmatory Items (cont'd)

ISE Confirmatory Items	Status
8. **ISE Confirmatory Item 3.2.1.1.C** – MAAP4 must be used in accordance with Sections 4.1, 4.2, 4.3, 4.4, and 4. 5 of the June 2013 position paper	**Submitted for closure** (8/2014)
9. **ISE Confirmatory Item 3.2.1.1.D** – MAAP modeling parameters must be identified and justified	**Submitted for closure** (8/2014)
10. **ISE Confirmatory Item 3.2.1.1.E** – The specific MAAP4 analysis case that was used to validate the timing of mitigating strategies in the Integrated Plan must be identified and should be available for review	**Submitted for closure** (8/2014)
11. **ISE Confirmatory Item 3.2.1.2.A** – There was no discussion of the applicability of the assumed recirculation system leakage rates and the recirculation pump seal leakage rates to the ELAP event; the pressure dependence of the leak rates; whether the leakage was determined to be single-phase, two-phase, or steam at the donor cell; and how mixing of the leakage flow with the drywell atmosphere was modeled	Started (2/2014)
12. **ISE Confirmatory Item 3.2.3.A** – The licensee has yet to evaluate containment integrity for Phases 1 through 2 and provided the finalized analysis for review	**Submitted for closure** (8/2014)
13. **ISE Confirmatory Item 3.2.3.B** – A modification to remove water from the torus in Phase 3 using RRC supplied equipment will be evaluated and implemented as required	**Submitted for closure** (8/2014)
14. **ISE Confirmatory Item 3.2.4.2.A** – Evaluation of the refueling floor SFP area for steam and condensation was not yet completed. Mitigating strategies, including establishing a vent pathway for steam and condensate from the area, were not discussed in the Integrated Plan or during the audit process	**Submitted for closure** (8/2014)
15. **ISE Confirmatory Item 3.2.4.2.B** – A summary of battery performance with elevated or lowered temperatures in the Battery Room due to an ELAP event will be provided in the future update	Started (2/2014)

Table 3
Status of NMP1 Interim Staff Evaluation (ISE) Open and Confirmatory Items (cont'd)

ISE Confirmatory Items	Status
16. **ISE Confirmatory Item 3.2.4.4.A** – The restoration of Emergency Lighting in Phase 2, that may be restored when Battery Board 12 is repowered, is currently under evaluation (i.e. battery loading calculation for ELAP). NMP1 will provide a summary of the restoration of Emergency Lighting in a future update	Started (2/2014)
17. **ISE Confirmatory Item 3.2.4.4.B** – Follow-up of commitments, as discussed in the staff analysis (ML 13100A236) for communications assessment, is required	Started (8/2014)
18. **ISE Confirmatory Item 3.2.4.6.A** – Licensee to provide calculation and basis for use of extrapolated SBO evaluation for Main Control Room habitability	Started (8/2014)
19. **ISE Confirmatory Item 3.2.4.8.A** – The licensee stated that when the design review of the portable generator protection is completed, the specific details on the protection schemes to protect Class 1E equipment from faults from the portable FLEX equipment will be provided in a future update	Started (2/2014)
20. **ISE Confirmatory Item 3.2.4.8.B** – The licensee will provide an updated summary of the sizing calculations for the FLEX generators at a future update	Started (2/2014)
21. **ISE Confirmatory Item 3.2.4.9.A** – The licensee stated that a summary of the refueling strategies for FLEX equipment will be provided when finalized at a future date	Started (2/2014)
22. **ISE Confirmatory Item 3.2.4.10.A** – The licensee stated that a finalized summary of battery coping time, DC load profile, discussion of loads shed, and minimum DC voltage will be provided in a future update	Started (2/2014)
23. **ISE Confirmatory Item 3.4.A** – The program or process to request RRC equipment was not discussed in the Integrated Plan or during the audit process	Started (2/2014)
24. **ISE Confirmatory Item 3.4.B** – Sizing calculations of RRC FLEX equipment and the compatibility of RRC equipment to plant connection points was not discussed in the Integrated Plan or during the audit process	Started (2/2014)

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 4 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. As stated previously, these six month communications assessment interim action updates are not required by any related NRC Order or endorsed guidance for Beyond-Design-Basis External Events. Communications plan interim action status updates will no longer be included in the FLEX Six Month Updates following this edition. This reduction in commitment will align the Exelon Northeast sites (former CENG sites) with the rest of the fleet.

Table 4
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	**Complete** (see the 2/2014 OIP Update)	
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	Started (8/2014)	12/31/2014 Revised to installation of a satellite dish
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 Joint Information Center (JIC)	12/31/2014	Started (8/2014)	

Table 4
Status of NMP1 Communications Assessment Interim Actions (cont'd)

Communications Assessment Implementing Actions	Target Completion Date	Status	Revised Target Completion Date
4. Develop Standing Order for Interim actions Standing Order will contain: • 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	**Complete** (see the 2/2014 OIP Update)	
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	**Complete** (see the 2/2014 OIP Update)	
6. Relocate two (2) phones from each Control Room to the TSC/OSC and EOF	8/31/2014	Not Started	12/19/2014 Date changed to be consistent with plans to move/install the fixed satellite phones in all locations

Table 4
Status of NMP1 Communications Assessment Interim Actions (cont'd)

Communications Assessment Implementing Actions	Target Completion Date	Status	Revised Target Completion Date
7. Develop/update preventative maintenance and testing procedures for fixed satellite phones	8/31/2014	Not Started	12/26/2014 Date changed to be consistent with plans to move/install the fixed satellite phones in all locations
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	Started (2/2014)	10/31/2014 Date changed to be consistent with plans to move/install the fixed satellite phones in all locations
Portable Satellite Phones			
1. Stage batteries and chargers in the applicable Emergency Response Organization (ERO) Facilities	10/31/2013	**Complete** (see the 2/2014 OIP Update)	
2. Update work instructions for portable satellite phone inventory	10/31/2013	**Complete** (see the 2/2014 OIP Update)	
3. Develop/update preventive maintenance and testing procedures for portable satellite phones, batteries and chargers	12/31/2013	**Complete** (see the 2/2014 OIP Update)	2/28/2014
4. Include information on portable satellite phone locations and usage in procedures	12/31/2013	**Complete** (see the 2/2014 OIP Update)	2/14/2014

Table 4
Status of NMP1 Communications Assessment Interim Actions (cont'd)

Communications Assessment Implementing Actions	Target Completion Date	Status	Revised Target Completion Date
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	**Complete** (see the 2/2014 OIP Update)	
Portable Generators			
1. Develop portable generator fueling plan to ensure ability to provide power for a minimum of 24 hours	12/31/2013	**Complete** (see the 2/2014 OIP Update)	
2. Develop procedures to maintain and test the portable generators	12/31/2013	**Complete** (see the 2/2014 OIP Update)	1/31/2014
3. Update work instructions to inventory portable generators and ensure adequate volume of fuel	12/31/2013	**Complete** (see the 2/2014 OIP Update)	1/31/2014
4. Develop preventive maintenance procedure for portable generators fuel supply	12/31/2013	**Complete** (see the 2/2014 OIP Update)	1/31/2014
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	

Table 4
Status of NMP1 Communications Assessment Interim Actions (cont'd)

Communications Assessment Implementing Actions	Target Completion Date	Status	Revised Target Completion Date
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	**Complete** (see the 2/2014 OIP Update)	
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	

9 References

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

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 Modifying 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
6. Letter from E. D. Dean (CENG) to Document Control Desk (NRC), Six Month Status Report in Response to March 12, 2012 Commission Order Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events (Order Number EA-12-049), dated August 27, 2013
7. Letter from J. S. Bowen (NRC) to J. A. Spina, Nine Mile Point Nuclear Station, Units 1 and 2 – Interim Staff Evaluations Relating to Overall Integrated Plans in Response to Order EA-12-049 (Mitigation Strategies) (TAC Nos. MF 1129 and MF1130), dated December 19, 2013
8. Letter from M. G. Korsnick (CENG) to Document Control Desk (NRC), February 2014 Six Month Status Report in Response to March 12, 2012 Commission Order Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events (Order Number EA-12-049), dated February 27, 2014
9. NEI Position Paper Shutdown and Refueling: ADAMS Accession No. ML13273A514
10. NRC Endorsement of NEI Shutdown and Refueling paper: ADAMS Accession No. ML13267A382

ATTACHMENT (2)

NMP2 SIX-MONTH STATUS REPORT (AUGUST 2014)

FOR MITIGATION STRATEGIES FOR

BEYOND-DESIGN-BASIS EXTERNAL EVENT

NINE MILE POINT NUCLEAR STATION, LLC
August 26, 2014

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 NRC Order Number EA-12-049 (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 last status report including any changes to the compliance method, schedule, or need for relief/relaxation and the 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. However, these six month communications assessment interim actions updates are not required by any related NRC Order or endorsed guidance for Beyond-Design-Basis External Events. Nine Mile Point continues to work on implementation plans associated with meeting the guidance in NEI 12-06 (Reference 5) and recognizes the close coordination and relationship to the guidance in NEI 12-01 Guidelines for Assessing Beyond Design Basis Accident Response Staffing and Communications Capabilities. Communications plan interim action status updates will no longer be included in the FLEX Six Month Updates following this edition. This reduction in commitment will align the Exelon Northeast sites (former CENG sites) with the rest of the fleet.

Since the submittal of the last status report in February 2014 (Reference 8), NMP2 FLEX has progressed with engineering analysis and calculations that support the mitigating strategies and the modification concepts have been refined. Some changes to the mitigation strategies and planned modifications in support of the mitigation strategies have occurred and are explained within this document. Work with the Strategic Alliance for FLEX Emergency Response (SAFER) has continued, with review of proposed supporting equipment specifications to allow Regional Center equipment purchases to commence, and initial development of site specific SAFER Response Plan to begin.

By letter dated December 19, 2013, the NRC issued to CENG the Nine Mile Point Nuclear Station, Units 1 and 2 – Interim Staff Evaluation Relating to Overall Integrated Plan in Response to Order EA-12-049 (Mitigation Strategies) (TAC Nos. MF 1129 and MF 1130) (Reference 7). The Interim Staff Evaluation (ISE) contains open and confirmatory items for which CENG will provide clarifying or additional information in Six Month Status Reports in order for the NRC to determine that the issues are on a path to satisfactory resolution.

2 Milestone Accomplishments

The following milestone(s) have been completed since the development of the OIP (Reference 3), and are current as of July 15, 2014.

- Six Month Integrated Plan Progress Report submitted (8/2013)
- Six Month Integrated Plan Progress Report submitted (2/2014)
- Refueling Outage (RFO), including walk downs in support of pending modifications for installation for FLEX strategies (8/2014)

3 Milestone Schedule Status

Table 1 provides an update to Attachment 2 of the NMP2 OIP (Attachment 4 - 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 Six Month Status Reports.

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

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	
Six Month Integrated Plan Progress Report	August 2013	Complete	
Engineering and Design Completion – Equipment Storage Facility	January 2014	Started	November 2014[1]
Six Month Integrated Plan Progress Report	February 2014	Complete	
Refueling Outage	April 2014	Complete	
Six Month Integrated Plan Progress Report	August 2014	Complete	

Table 1
Status of NMP2 FLEX OIP Milestones (cont'd)

Milestone	Target Completion Date	Activity Status	Revised Target Completion Date
Engineering and Design Completion – Portable Equipment Connections	November 2014	Started	
Six Month Integrated Plan Progress Report	February 2015	Not Started	
Equipment Storage Facility installation	June 2015	Started	May 2015
Six Month Integrated Plan Progress Report	August 2015	Not Started	
Non-Outage Installation – Portable Equipment Connection	January 2016	Not Started	
Six Month Integrated Plan Progress Report	February 2016	Not Started	
Validation Walkdowns Complete	February 2016	Not Started	
Portable Equipment Procedures Changes	March 2016	Started	
FLEX Training	March 2016	Not Started	
Refueling Outage	April 2016	Not Started	
Outage Installation – Portable Equipment Connections	May 2016	Not Started	
Final Implementation Notification to USNRC	July 2016	Not Started	

Note 1: Revised from previous NMP2 Six Month Status Report which identified July 2014. Building design supporting the start of construction in August has been completed. Design supporting building services and security access will be completed in November 2014. Overall completion to the Milestone for 'Equipment Storage Facility Installation' remains unaffected.

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) and were provided in the last Six Month Status Report. NMP2 will incorporate the supplemental guidance provided in the NEI position paper entitled "Shutdown / Refueling Modes" to enhance the shutdown risk process and procedures (References 9 and 10).

The following coping strategy changes have occurred since the previous Six Month Status Update provided on February 28, 2014 (Reference 8).

- No modifications will be installed to support mitigating strategies for Phase 3. The connection of the majority of Phase 3 equipment will be made to connection points established for Phase 2 equipment and strategies. Resources will be available, and sufficient, at the times required for Phase 3 implementation. The remaining Phase 3 non-redundant equipment will be deployed utilizing field established connections, without the reliance on plug and play type modifications.
- Connections for portable FLEX pumps to the Residual Heat Removal system (RHR), as described in the original OIP (Reference 3) in the Maintain Core Cooling section, are no longer planned to be external to the Reactor Building. The connections for the portable pumps to be deployed in Phase 2 of the mitigation strategies will now be provided to the RHR systems inside the Reactor Building and will serve to add water to the reactor vessel (consistent with previous strategy) and spent fuel pool (see below). Hoses from the portable pumps will extend into the Reactor Building and breeches of the Reactor Building doors will be required.
- The NMP2 OIP (Reference 3) description of the primary connection modification for SFP makeup and preliminary drawings associated with the makeup water capability for the SFP identified that there would be a hard pipe tied into the Emergency Service water makeup line to SFP cooling system return line. This has changed in that the primary injection point for makeup to the SFP will instead be the "B" Residual Heat Removal (RHR) loop. The spent fuel pool cooling assist piping will be utilized to establish the flow path. Connection point to the RHR loop will now be inside the Reactor Building. The "A" RHR loop will be the alternate injection path with a similar configuration. The FLEX portable pump connection points will be the same connection points utilized for core cooling.

Remaining design specifications and requirements 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 and those added in any subsequent Six Month Status Reports and the status of each item.

The following is a list of the open items from the OIP that have been added, deleted or completed since the last Six Month Status Report with an explanation of the changes:

1. **Maintain Core Cooling - BWR Portable Equipment Phase 2**

   Open Item #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.

   This item is **deleted.** See Open Item # 6 for Phase 2. No modifications will be installed to support mitigating strategies for Phase 3. Phase 2 mitigation strategies are capable of restoring or maintaining all key safety functions for at least 72 hours. Indefinite coping is achieved via the installation of plant modifications and procedures by the responding support staff for the event. Placing additional equipment in service to support restart of plant equipment (such as Shutdown Cooling) is not necessary to support indefinite coping, is considered to be part of plant recovery, and is therefore not within the scope of the mitigating strategies.

2. **Maintain Core Cooling - BWR Portable Equipment Phase 3**

   Open Item # 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.

   This item is **deleted.** Phase 2 mitigation strategies are capable of restoring or maintaining all key safety functions for at least 72 hours. Restoration of RHR in SDC is not necessary to support indefinite coping, is considered to be part of plant recovery, and is therefore not within the scope of the mitigating strategies.

3. **Safety Functions Support - BWR Portable Equipment Phase 2**

   Open Item # 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

   This item is **complete.** An Exelon fleet design specification has been developed, including all applicable Nine Mile Point site specific design requirements. Robust structure design work is complete, including those drawings, specifications and calculations that allow for construction to begin and space for the storage of the small gas generators and the fuel for them with the building. All FLEX equipment, including combustible material cabinets and fuel cans for refueling portable generators will be stored in the FLEX storage structure.

Open Item # 49: Perform an analysis of the need for dewatering based on leak rates and flood response capabilities.

This item is **deleted.** The following is provided in the original OIP; "Note that this is not a required strategy for core, containment or spent fuel pool cooling but for the long term consideration of normalization of plant systems". Based on this there is no need for dewatering actions to be planned within the scope of the mitigating strategies.

4. **Maintain Core Cooling - BWR Portable Equipment Phase 3**

Open Item #50: Implement a design change to install permanent 4160 VAC bus connection points to be able to connect to the RRC supplied Diesel Generator (DG), including paralleling capability, as required to connect more than one diesel generator to an electrical bus.

This item is **deleted.** Phase 2 mitigation strategies are capable of restoring or maintaining all key safety functions for at least 72 hours. Connecting a RRC 4160 VAC generator to a safety related bus is only needed to support recovery actions and is therefore not within the scope mitigating strategies.

5. **Maintain Core Cooling - BWR Portable Equipment Phase 3**

Open Item # 51: Implement a design change to receive large capacity RRC pumps to supply the service water distribution header.

This item is **deleted.** Phase 2 mitigation strategies are capable of restoring or maintaining all key safety functions for at least 72 hours. Given the ability to maintain core makeup as established in Phase 2 indefinitely, large capacity RRC pumps are not required for indefinite coping and therefore restoring service water distribution to place shutdown cooling in service is considered part of plant recovery and is therefore not within the scope of the mitigating strategies.

Table 2
Status of NMP2 FLEX OIP Open Items

NMP2 OIP Open Items	Status
1. Define criteria for the local (25 mile) staging area	**Complete** (see the 2/2014 OIP Update)
2. Evaluate deployment strategies and deployment routes for hazard impact	Started (2/2014)
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 (8/2013)
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 Six Month Update following identification	Started (8/2013)
5. Determine schedule for when Regional Response Centers (RRCs) will be fully operational	**Complete** (see the 8/2013 OIP Update)
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	Started (2/2014)
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	**Deleted** (this OIP Update 8/2014)
8. Perform calculations and validate assumptions of fuel consumption and replenishment rate to ascertain the time before off-site replenishment is required	Started (8/2013)
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)	Started (2/2014)
10. Perform an evaluation of the redundant power strategy for radio repeaters and design and implement modifications or programmatic changes as required	Started (2/2014)

Table 2
Status of NMP2 FLEX OIP Open Items (cont'd)

NMP2 OIP Open Items	Status
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	**Completed** (this OIP Update – 8/2014)
12. Perform an analysis for feasibility of utilizing the sound powered communications for onsite communications for FLEX strategies	Started (2/2014)
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)	Started (2/2014)
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 (8/2013)
16. Establish a suitable local staging area for Phase 3 portable FLEX equipment to be deployed on site SAFER Staging Area "B"	Started (8/2013)
17. Provide the necessary storage facilities in order to provide fuel to the transfer pumps during an ELAP event	Started (8/2014)
18. Develop site specific SAFER Response Plan (playbook) for delivery of portable FLEX equipment from the RRC to the site	Started (8/2013)
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 (8/2013)
21. Evaluate and implement procedures that direct immediate deployment of Phase 2 equipment during Refueling conditions	Started (2/2014)
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	Started (8/2014)

Table 2
Status of NMP2 FLEX OIP Open Items (cont'd)

NMP2 OIP Open Items	Status
23. Develop procedures/guidelines to address the criteria in NEI 12-06 to support existing symptom based strategies in the Emergency Operating Procedures (EOPs)	Started (2/2014)
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 (8/2013)
25. Evaluate requirements and options and develop strategies related to the storage and transport of the on-site FLEX portable equipment	Started (2/2014)
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	Started (2/2014)
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	Started (2/2014)
32. Perform an analysis to identify necessary actions, (e.g., modifications or programmatic changes) to maximize battery coping time to at least 8 hours	Started (8/2014)

Table 2
Status of NMP2 FLEX OIP Open Items (cont'd)

NMP2 OIP Open Items	Status
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
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 diesel generator (DG) to power all expected loads	Started (2/2014)
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	**Deleted** (this OIP Update 8/2014)
40. Perform a load distribution analysis for safety related equipment restoration utilizing either two RRC Diesel Generators paralleled on one 4160 VAC bus or one RRC Diesel Generator on each safety related bus (i.e., one on Division 1 and one on Division 2)	**Deleted** (see the 8/2013 OIP Update)
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 the 8/2013 OIP Update)
42. Evaluate a strategy to provide a vent pathway for steam and condensate from the SFP or justify why it is not needed	Started (2/2014)

Table 2
Status of NMP2 FLEX OIP Open Items (cont'd)

NMP2 OIP Open Items	Status
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	Started (2/2014)
45. Perform an analysis to evaluate long term temperature profiles in the NMP2 Main Control Room (MCR) under ELAP condition (Phase 1)	**Deleted** (see the 8/2013 OIP Update)
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	Started (2/2014)
47. Evaluate the strategy for repower of select Emergency Lighting loads when the FLEX portable Diesel Generator reenergizes the 600 VAC bus	Started (2/2014)
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	Started (2/2014)
49. Perform an analysis of the need for dewatering based on leak rates and flood response capabilities	**Deleted** (this OIP Update 8/2014)
50. Implement a design change to install permanent 4160 VAC bus connection points to be able to connect to the RRC supplied Diesel Generator, including paralleling capability, as required to connect more than one Diesel Generator to an electrical bus	**Deleted** (this OIP Update 8/2014)
51. Implement a design change to receive large capacity RRC pumps to supply the service water distribution header	**Deleted** (this OIP Update 8/2014)
52. Design and implement a modification that provides for connection of a FLEX portable pump to makeup to the SFP	Started (8/2014)
53. Implement a design change to install connections for FLEX portable pumps to RHR for both RHR 'A' and 'B'	Started (8/2014)
54. Implement a design change to install portable generator connections for 600 VAC primary (2EJS*US1) and alternate (2EJS*US3) busses	Started (8/2014)

Table 2
Status of NMP2 FLEX OIP Open Items (cont'd)

NMP2 OIP Open Items	Status
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	Started (2/2014)
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
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	Started (8/2014)
60. Develop and implement procedures that provide direction for restoration of SFP cooling during ELAP conditions (Phase 3)	**Deleted** (see the 8/2013 OIP Update)
61. Implement a design change to install permanent dry hydrants in the intake structure for FLEX portable pump suctions	Not Started

Table 3 provides a summary of the open and confirmatory items documented in the NRC's NMP2 ISE (Reference 7) and the status of each item.

Table 3
Status of NMP2 Interim Staff Evaluation (ISE) Open and Confirmatory Items

	ISE Open Items	Status
1.	**ISE Open Item 3.1.1.3.A** – Seismic procedural interface consideration NEI 12-06, Section 5.3.3, Consideration 1, which considers the possible failure of seismically qualified electrical equipment by beyond-design-basis seismic events, was not discussed in the Integrated Plan or during the audit process	Started (8/2014)
2.	**ISE Open Item 3.2.3.B** – The licensee has not performed finalized calculations to demonstrate that the assumed timeline is appropriate and that containment functions will be restored and maintained following an ELAP event	Started (2/2014)
3.	**ISE Open Item 3.2.3.C** – Revision 3 to the [Boiling Water Reactor Owner's Group] BWROG Emergency Procedure Guidance (EPG) Severe Accident Guidance (SAG) is a Generic Concern because the BWROG has not addressed the potential for the revised venting strategy to increase the likelihood of detrimental effects on containment response for events in which the venting strategy is invoked (identified as a 'Significant Concern' in the Notes for this Open Item in the ISE)	Not Started
	ISE Confirmatory Items	**Status**
4.	**ISE Confirmatory Item 3.1.1.1.A** – The design of the storage facility for FLEX equipment is under development. The method selected for protection of equipment during a Beyond-Design-Basis External Event (BDBEE) was not discussed in the Integrated Plan or during the audit process. Also, there was no discussion of securing large portable equipment for protection during a seismic hazard	Started (2/2014)
5.	**ISE Confirmatory Item 3.1.1.2.A** – Deployment routes have not yet been finalized or reviewed for possible impacts due to debris and potential soil liquefaction. Movement of equipment and procedural interfaces during a BDBEE were not discussed in the Integrated Plan or during the audit process. Deployment of temporary flood barriers, restocking of supplies in the context of a flood with long persistence and the potential impact of surface icing were also not addressed	Started (2/2014)

Table 3
Status of NMP2 Interim Staff Evaluation (ISE) Open and Confirmatory Items (cont'd)

ISE Confirmatory Items	Status
6. **ISE Confirmatory Item 3.1.1.4.A** – Concerning utilization of offsite resources during a BDBEE, the local staging area and access routes were not discussed in the Integrated Plan or during the audit process	Started (2/2014)
7. **ISE Confirmatory Item 3.2.1.1.A** – MAAP benchmarks must be identified and discussed which demonstrate that MAAP4 is an appropriate code for the simulation of an ELAP event	Started (2/2014)
8. **ISE Confirmatory Item 3.2.1.1.B** – MAAP Analysis collapsed level must remain above Top of Active Fuel (TAF) and the cool down rate must be within technical specification limits	Started (2/2014)
9. **ISE Confirmatory Item 3.2.1.1.C** – MAAP4 must be used in accordance with Sections 4.1, 4.2, 4.3, 4.4 and 4. 5 of the June 2013 position paper	Started (2/2014)
10. **ISE Confirmatory Item 3.2.1.1.D** – MAAP modeling parameters	Started (2/2014)
11. **ISE Confirmatory Item 3.2.1.1.E** – The specific MAAP4 analysis case that was used to validate the timing of mitigating strategies in the Integrated Plan must be identified and should be available for review	Started (2/2014)
12. **ISE Confirmatory Item 3.2.1.2.A** – There was no discussion of the applicability of the assumed recirculation system leakage rates and the recirculation pump seal leakage rates to the ELAP event; the pressure dependence of the leak rates; whether the leakage was determined to be single-phase, two-phase, or steam at the donor cell; and how mixing of the leakage flow with the drywell atmosphere was modeled	Not Started
13. **ISE Confirmatory Item 3.2.2.A** – Evaluation of the refueling floor SFP area for steam and condensation was not yet completed. Mitigating strategies were not discussed in the Integrated Plan or during the audit process	Started (2/2014)

Table 3
Status of NMP2 Interim Staff Evaluation (ISE) Open and Confirmatory Items (cont'd)

ISE Confirmatory Items	Status
14. **ISE Confirmatory Item 3.2.3.A** – Perform an evaluation of containment structures to identify necessary actions to enable implementation of the strategy with running RCIC with elevated temperatures	Started (2/2014)
15. **ISE Confirmatory Item 3.2.4.2.A** – The completion and determination of acceptable results for all of the calculations associated with the proposed strategies for ventilation and critical equipment cooling (e.g., RCIC and Battery Rooms) are required	Started (2/2014)
16. **ISE Confirmatory Item 3.2.4.4.A** – The potential restoration of a portion of the Emergency Lighting System when Division I 600 VAC Unit Substation 2EJS*US1 (or alternatively Division II 2EJS*US3) is repowered is currently under evaluation. NMP2 will provide a summary of the restoration of Emergency Lighting expected to be restored in a future update	Not Started
17. **ISE Confirmatory Item 3.2.4.4.B** – Follow-up of communication commitments as discussed in the staff analysis (ML 13100A236) is required	Not Started
18. **ISE Confirmatory Item 3.2.4.6.A** – Licensee to provide calculation and basis for use of extrapolated station blackout (SBO) evaluation for Main Control Room habitability	Started (2/2014)
19. **ISE Confirmatory Item 3.2.4.8.A** – The licensee stated that when the design review of the portable generator protection is completed, the specific details on the protection schemes to protect Class 1E equipment from faults from the portable FLEX equipment will be provided in a future update	Not Started
20. **ISE Confirmatory Item 3.2.4.8.B** – The licensee will provide an updated summary of the sizing calculations for the FLEX generators at a future update	Not Started
21. **ISE Confirmatory Item 3.2.4.9.A** – The licensee stated that a summary of the refueling strategies for FLEX equipment will be provided when finalized at a future date	Started (2/2014)
22. **ISE Confirmatory Item 3.2.4.10.A** – The licensee stated that a finalized summary of battery coping time, DC load profile, discussion of loads shed, and minimum DC voltage will be provided in a future update	Started (8/2014)

Table 3
Status of NMP2 Interim Staff Evaluation (ISE) Open and Confirmatory Items (cont'd)

ISE Confirmatory Items	Status
23. **ISE Confirmatory Item 3.4.A** – The program or process to request RRC equipment was not discussed in the Integrated Plan or during the audit process	Started (2/2014)
24. **ISE Confirmatory Item 3.4.8** – Sizing calculations of RRC FLEX equipment and the compatibility of RRC equipment to plant connection points was not discussed in the Integrated Plan or during the audit process	Not Started

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 4 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. As stated previously, these six month communications assessment interim action updates are not required by any related NRC Order or endorsed guidance for Beyond-Design-Basis External Events. Communications plan interim action status updates will no longer be included in the FLEX Six Month Updates following this edition. This reduction in commitment will align the Exelon Northeast sites (former CENG sites) with the rest of the fleet.

Table 4
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	**Complete** (see the 2/2014 OIP Update)	
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	Started (8/2014)	12/31/2014 Revised to installation of a satellite dish
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 the Joint Information Center JIC	12/31/2014	Started (8/2014)	
4. Develop Standing Order for Interim actions. Standing Order will contain: • 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	**Complete** (See the 2/2014 OIP Update)	

Table 4
Status of NMP2 Communications Assessment Interim Actions (cont'd)

Communications Assessment Implementing Actions	Target Completion Date	Status	Revised Target Completion Date
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	**Complete** (See the 2/2014 OIP Update)	
6. Relocate two (2) phones from each Control Room to the TSC/OSC and EOF	8/31/2014	Not Started	12/19/2014 Date changed to be consistent with plans to move/install the fixed satellite phones in all locations
7. Develop/update preventative maintenance and testing procedures for fixed satellite phones	8/31/2014	Not Started	12/26/2014 Date changed to be consistent with plans to move/install the fixed satellite phones in all locations
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	Started (2/2014)	10/31/2014 Date changed to be consistent with plans to move/install the fixed satellite phones in all locations

Table 4
Status of NMP2 Communications Assessment Interim Actions (cont'd)

Communications Assessment Implementing Actions	Target Completion Date	Status	Revised Target Completion Date
Portable Satellite Phones			
1. Stage batteries and chargers in the applicable Emergency Response Organization (ERO) Facilities	10/31/2013	**Complete** (see the 2/2014 OIP Update)	
2. Update work instructions for portable satellite phone inventory	10/31/2013	**Complete** (see the 2/2014 OIP Update)	
3. Develop/update preventive maintenance and testing procedures for portable satellite phones, batteries and chargers	12/31/2013	**Complete** (see the 2/2014 OIP Update)	2/28/2014
4. Include information on portable satellite phone locations and usage in procedures	12/31/2013	**Complete** (see the 2/2014 OIP Update)	2/14/2014
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	**Complete** (see the 2/2014 OIP Update)	

Table 4
Status of NMP2 Communications Assessment Interim Actions (cont'd)

Communications Assessment Implementing Actions	Target Completion Date	Status	Revised Target Completion Date
Portable Generators			
1. Develop portable generator fueling plan to ensure ability to provide power for a minimum of 24 hours	12/31/2013	**Complete** (see the 2/2014 OIP Update)	
2. Develop procedures to maintain and test the portable generators	12/31/2013	**Complete** (see the 2/2014 OIP Update)	1/31/2014
3. Update work instructions to inventory portable generators and ensure adequate volume of fuel	12/31/2013	**Complete** (see the 2/2014 OIP Update)	1/31/2014
4. Develop preventive maintenance procedure for portable generators fuel supply	12/31/2013	**Complete** (see the 2/2014 OIP Update)	1/31/2014
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	**Complete** (see the 2/2014 OIP Update)	

Table 4
Status of NMP2 Communications Assessment Interim Actions (cont'd)

Communications Assessment Implementing Actions	Target Completion Date	Status	Revised Target Completion Date
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	

9 References

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

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 Modifying 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
6. Letter from E. D. Dean (CENG) to Document Control Desk (NRC), Six Month Status Report in Response to March 12, 2012 Commission Order Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events (Order Number EA-12-049), dated August 27, 2013
7. Letter from J. S. Bowen (NRC) to J. A. Spina, Nine Mile Point Nuclear Station, Units 1 and 2 – Interim Staff Evaluations Relating to Overall Integrated Plans in Response to Order EA-12-049 (Mitigation Strategies) (TAC Nos. MF 1129 and MF1130), dated December 19, 2013
8. Letter from M. G. Korsnick (CENG) to Document Control Desk (NRC), Six Month Status Report in Response to March 12, 2012 Commission Order Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events (Order Number EA-12-049), dated February 27, 2014
9. NEI Position Paper Shutdown and Refueling: ADAMS Accession No. ML13273A514
10. NRC Endorsement of NEI Shutdown and Refueling Paper: ADAMS Accession No. ML13267A382