



Order No. EA-12-049

RS-14-011

February 28, 2014

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

LaSalle County Station, Units 1 and 2
Facility Operating License Nos. NPF-11 and NPF-18
NRC Docket Nos. 50-373 and 50-374

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

References:

1. NRC Order Number EA-12-049, "Issuance of Order to Modify Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events," dated March 12, 2012
2. NRC Interim Staff Guidance JLD-ISG-2012-01, "Compliance with Order EA-12-049, Order Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events," Revision 0, dated August 29, 2012
3. NEI 12-06, "Diverse and Flexible Coping Strategies (FLEX) Implementation Guide," Revision 0, dated August 2012
4. Exelon Generation Company, LLC's Initial Status Report in Response to March 12, 2012 Commission Order Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events (Order Number EA-12-049), dated October 25, 2012
5. Exelon Generation Company, LLC Overall Integrated Plan in Response to March 12, 2012 Commission Order Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events (Order Number EA-12-049), dated February 28, 2013 (RS-13-021)
6. Exelon Generation Company, LLC First Six-Month Status Report in Response to March 12, 2012 Commission Order Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events (Order Number EA-12-049), dated August 28, 2013 (RS-13-121)

On March 12, 2012, the Nuclear Regulatory Commission ("NRC" or "Commission") issued an order (Reference 1) to Exelon Generation Company, LLC (EGC). Reference 1 was immediately effective and directs EGC to develop, implement, and maintain guidance and strategies to maintain or restore core cooling, containment, and spent fuel pool cooling capabilities in the event of a beyond-design-basis external event. Specific requirements are outlined in Attachment 2 of Reference 1.

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

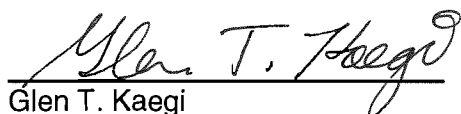
Reference 1 requires submission of a status report at six-month intervals following submittal of the overall integrated plan. Reference 3 provides direction regarding the content of the status reports. Reference 6 provides the first six-month status report pursuant to Section IV, Condition C.2, of Reference 1 for LaSalle County Station. The purpose of this letter is to provide the second six-month status report pursuant to Section IV, Condition C.2, of Reference 1, that delineates progress made in implementing the requirements of Reference 1. The enclosed report provides an update of milestone accomplishments since the last status report, including any changes to the compliance method, schedule, or need for relief and the basis, if any.

As described in Reference 5, full implementation of NRC Order EA-12-049 required mitigation strategies is dependent upon implementation of reliable hardened containment venting capability established in accordance with NRC Order EA-12-050. NRC Order EA-13-109 issued by the NRC on June 6, 2013, rescinded the requirements of Order EA-12-050 and established revised schedule timelines and implementation dates for reliable hardened containment vents capable of operation under severe accident conditions. The revised schedule and implementation timeline contained in Order EA-13-109 delays the ability to achieve full implementation of the mitigation strategy requirements of Order EA-12-049. This need for relaxation from the implementation requirements of Order EA-12-049 is described in Section 5 of the enclosed update report. The request for relaxation of the full implementation schedule requirements of Order EA-12-049 will be submitted separately.

This letter contains no new regulatory commitments. If you have any questions regarding this report, please contact David P. Helker at 610-765-5525.

I declare under penalty of perjury that the foregoing is true and correct. Executed on the 28th day of February 2014.

Respectfully submitted,



Glen T. Kaegi
Director - Licensing & Regulatory Affairs
Exelon Generation Company, LLC

Enclosure:

1. LaSalle County Station, Units 1 and 2 Second Six-Month Status Report for the Implementation of Order EA-12-049, Order Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events

cc: Director, Office of Nuclear Reactor Regulation
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NRC Senior Resident Inspector – LaSalle County Station, Units 1 and 2
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Enclosure

LaSalle County Station, Units 1 and 2

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

(7 pages)

Enclosure

LaSalle County Station, Units 1 and 2 Second Six Month Status Report for the Implementation of Order EA-12-049, Order Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events

1 Introduction

LaSalle County Station, Units 1 and 2 developed an Overall Integrated Plan (Reference 1 in Section 8), documenting the diverse and flexible strategies (FLEX), in response to Reference 2. This enclosure 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 any.

2 Milestone Accomplishments

None.

3 Milestone Schedule Status

The following provides an update to Attachment 2 of the Overall Integrated Plan. 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.

The revised target completion dates impact the order implementation date. An explanation of the impact of these changes is provided in Section 5 of this enclosure.

Milestone Schedule

Site: LaSalle

Activity	Target Completion Date	Activity Status	Revised Target Completion Date
Submit 60 Day Status Report	Oct 2012	Complete	
Submit Overall Integrated Plan	Feb 2013	Complete	
Contract with Regional Response Center (RRC)		Complete	
Submit 6 Month Updates:			
Update 1	Aug 2013	Complete	
Update 2	Feb 2014	Complete with this submittal	
Update 3	Aug 2014	Not Started	
Update 4	Feb 2015	Not Started	

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Activity	Target Completion Date	Activity Status	Revised Target Completion Date
Update 5	Aug 2015	Not Started	
Update 6	Feb 2016	Not Started	
Update 7	Aug 2016	Not Started	
Submit Completion Report	Sep 2017	Not Started	See Section 5 of this enclosure
Modification Development & Implementation:			
Unit 1 Modification Development (All FLEX Phases)	Jan 2015	Started	
Unit 1 Modification Implementation (All FLEX Phases)	Mar 2016	Not Started	
Unit 2 Modification Development (All FLEX Phases)	Jan 2014	Started	Jul 2014
Unit 2 Modification Implementation (All FLEX Phases)	Feb 2015	Not Started	
Procedures:			
Create Site-Specific Procedures	Feb 2015	Not Started	
Validate Procedures (NEI 12-06, Sect. 11.4.3)	Feb 2015	Not Started	
Create Maintenance Procedures	Feb 2015	Not Started	
Perform Staffing Analysis	Oct 2014	Not Started	
Storage Plan and Construction	Feb 2015	Started	
FLEX Equipment Acquisition	Feb 2015	Started	
Training Completion	Feb 2015	Not Started	
Regional Response Center Operational	Dec 2014	Started	
Unit 1 FLEX Implementation	Mar 2016	Started	See Section 5 of this enclosure
Unit 2 FLEX Implementation	Feb 2015	Started	See Section 5 of this enclosure
Full Site FLEX Implementation	Mar 2016	Started	See Section 5 of this enclosure

4 Changes to Compliance Method

Changes have been made to the compliance method with NEI 12-06 since the last update in August 2013 (Ref. 4). These changes continue to meet the requirements of NRC Order EA-12-049 (Ref. 2).

Attachment 3 of Reference 1 contained conceptual sketches of the water supply and electrical power supply strategies. Reference 4 described changes to both the electrical and water supply strategies. Attachment 1 of this enclosure contains an additional change to the water supply strategy that supersedes the water supply strategy change described in Reference 4. Specifically, instead of installing new water piping in the to-be-installed hardened vent chase that will be routed up the outside of the Reactor Building, the decision has been made to utilize the existing Division 1 Fuel Pool Emergency Makeup (FC EMU) piping instead. As depicted on Attachment 1, a connection will be provided in the Division 1 FC EMU piping such that water can be provided to the spent fuel pool as well as the RPV and containment. The flow path to the RPV and containment is via a hose connection from the Division 1 FC EMU piping to the existing B.5.b connection points on 'A' or 'B' RHR. The drawing depicts the hose being connected to the 'A' RHR B.5.b connection point (which is completely independent of the primary water supply strategy use of 'B' RHR). The Division 1 FC EMU hose connection on the Refuel Floor can be used for either fill or spray capability.

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

This section provides a summary of needed relief/relaxation only. The specific details will be submitted in a separate document.

NRC Order EA-12-049 requires implementation of Mitigation Strategies to include procedures, guidance, training, and acquisition, staging, or installing of equipment needed for the strategies. Reference 1 provided the LaSalle County Station response to NRC Order EA-12-049. The cover letter to this enclosure identifies that delays in implementing the Hardened Containment Vent System as required by NRC Order EA-13-109 will also affect implementation of the Mitigation Strategies Order EA-12-049 actions.

The Reference 1 enclosure describes the LaSalle County Station Mitigation Strategies that are based on venting the containment using the Hardened Containment Vent System. It also describes that a modification to install a Hardened Containment Vent System (HCVS) is required. Thus, the LaSalle County Station NRC Order EA-12-049 response provided in Reference 1 was premised on installation and use of a Hardened Containment Vent System as required by NRC Order EA-12-050.

Upon issuance of NRC Order EA-13-109 on June 6, 2013, the NRC revised the technical and schedule requirements applicable to the Hardened Containment Vent System and rescinded the requirements of NRC Order EA-12-050.

As a result, full compliance to the Mitigation Strategies required by NRC Order EA-12-049 and described in Reference 1 for LaSalle County Station Units 1 and 2 will not be achieved until compliance to NRC Order EA-13-109 is achieved. Compliance with NRC Order EA-13-109 wetwell vent requirements is required by startup from the U2 refuel outage in the Spring of 2017 and by startup from the U1 refuel outage in the Spring of 2018. Compliance with NRC Order EA-13-109 drywell vent requirements is required by startup from the U2 refuel outage in the Spring of 2019 and by startup from the U1 refuel

outage in the Spring of 2018. Schedule relief/relaxation from the NRC Order 12-049 IV.A.2 requirements is required.

LaSalle County Station will be in compliance with the aspects of the Reference 1, Unit 1 and Unit 2, Mitigation Strategies that do not rely upon a Hardened Containment Vent System unless otherwise described.

6 Open Items from Overall Integrated Plan and Interim Staff Evaluation

The following table provides a summary of the open items documented in the Overall Integrated Plan and the Interim Staff Evaluation and the status of each item.

Section Reference	Overall Integrated Plan Open Item	Status
Sequence of Events (p.5)	The times to complete actions in the Events Timeline are based on operating judgment, conceptual designs, and current supporting analyses. The final timeline will be time validated once detailed designs are completed and procedures developed.	Not Started
Sequence of Events (p.10)	Initial evaluations were used to determine the fuel pool timelines. Formal calculations will be performed to validate this information during development of the spent fuel pool cooling strategy detailed design.	Completed. Determined that the initial evaluations that were performed are sufficient.
Sequence of Events (p.10)	Analysis of deviations between Exelon's engineering analyses and the analyses contained in BWROG Document NEDC-33771P, "GEH Evaluation of FLEX Implementation Guidelines and documentation of results on Att. 1B, "NSSS Significant Reference Analysis Deviation Table." Planned to be completed and submitted with August 2013 Six Month Update.	Completed.
Strategy Deployment (p.11)	Transportation routes will be developed from the equipment storage area to the FLEX staging areas. An administrative program will be developed to ensure pathways remain clear or compensatory actions will be implemented to ensure all strategies can be deployed during all modes of operation.	Started

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Section Reference	Overall Integrated Plan Open Item	Status
	Identification of storage areas and creation of the administrative program are open items.	
Programmatic Controls (p.12)	An administrative program for FLEX to establish responsibilities, and testing & maintenance requirements will be implemented.	Started
Core Cooling Phase 1 (p.17)	Additional work will be performed during detailed design development to ensure Suppression Pool temperature will support RCIC operation, in accordance with approved BWROG analysis, throughout the event.	Started
Fuel Pool Cooling Phase 1 (p.35)	Complete an evaluation of the spent fuel pool area for steam and condensation.	Not Started
Safety Functions Support Phase 1 (p.44)	Evaluate the habitability conditions for the Main Control Room and develop a strategy to maintain habitability.	Started. LaSalle will be applying the “toolbox” approach for habitability.
Safety Functions Support Phase 1 (p.44)	Evaluate the habitability conditions for the Auxiliary Electric Equipment Room (AEER) and develop a strategy to maintain habitability.	Not Started
Safety Functions Support Phase 2 (p.48)	Develop a procedure to prop open battery room doors upon energizing the battery chargers to prevent a buildup of hydrogen in the battery rooms.	Not Started
Section Reference/Item No.	Interim Staff Evaluation Open and Confirmatory Items	Status
	{NOTE: LaSalle has not received the Interim Staff Evaluation as of the preparation date for this Update}	

7 Potential Draft Safety Evaluation Impacts

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

8 References

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

1. LaSalle County Station's Overall Integrated Plan in Response to March 12, 2012 Commission Order Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events (Order Number EA-12-049)," dated February 28, 2013.
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. NRC Order EA-13-109, "Issuance of Order to Modify Licenses with Regard to reliable Hardened Containment Vents Capable of Operation Under Severe Accident Conditions," dated June 6, 2013.
4. LaSalle County Station's, First Six Month Status Report for the Implementation of FLEX, dated August 28, 2013.

9 Attachment

1. Revised Mechanical Drawing depicting new alternate water supply routing

