



Order No. EA-12-049

RS-14-012

February 28, 2014

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

Limerick Generating Station, Units 1 and 2  
Facility Operating License Nos. NPF-39 and NPF-85  
NRC Docket Nos. 50-352 and 50-353

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-13-022)
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-13-123)
7. NRC letter to Exelon Generation Company, LLC, Limerick Generating Station, Units 1 and 2 – Interim Staff Evaluation Relating to Overall Integrated Plan in Response to Order EA-12-049 (Mitigation Strategies) (TAC Nos. MF0847 and MF0848), dated January 10, 2014

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 Limerick Generating 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 Limerick Generating 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. The enclosed report also addresses the NRC Interim Staff Evaluation Open and Confirmatory Items contained in Reference 7.

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 is being 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 28<sup>th</sup> day of February 2014.

Respectfully submitted,



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David P. Helker  
Manager - Licensing & Regulatory Affairs  
Exelon Generation Company, LLC

Enclosure:

1. Limerick Generating 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  
NRC Regional Administrator - Region I  
NRC Senior Resident Inspector – Limerick Generating Station, Units 1 and 2  
NRC Project Manager, NRR – Limerick Generating Station, Units 1 and 2  
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Director, Bureau of Radiation Protection – Pennsylvania Department of Environmental Resources  
R. R. Janati, Chief, Division of Nuclear Safety, Pennsylvania Department of Environmental Protection, Bureau of Radiation Protection

**Enclosure**

**Limerick Generating 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**

(13 pages)

**Enclosure**

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

**1 Introduction**

Limerick Generating 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 NRC Order EA-12-049 (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**

The following milestone(s) have been completed since the August 28, 2013 status report (Reference 4) and are current as of January 24, 2014.

- Engineering contracts have been awarded for FLEX Modifications on both units and detailed Engineering has commenced.
- Development of Site Specific procedures for implementation of the FLEX Strategies has commenced.

**3 Milestone Schedule Status**

The following provides an update to Attachment 2 of the Overall Integrated Plan (Reference 1). 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 need for relief relaxation on site implementation of Order EA-12-049 is provided in Section 5 of this enclosure.

**Milestone Schedule**

**Site: Limerick Generating Station**

Activity	Target Completion Date	Activity Status	Revised Target Completion Date
Submit 60 Day Status Report	October 2012	Complete	
Submit Overall Integrated Plan	February 2013	Complete	
Contract with RRC	October 2012	Complete	
<b>Submit 6 Month Updates:</b>			
Update 1	August 2013	Complete	

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Activity	Target Completion Date	Activity Status	Revised Target Completion Date
Update 2	February 2014	Complete with this submittal	
Update 3	August 2014	Not Started	
Update 4	February 2015	Not Started	
Update 5	August 2015	Not Started	
Update 6	February 2016	Not Started	
Update 7	August 2016	Not Started	Not required based on April 2016 second unit live date
Submit Completion Report	April 2016	Not Started	
<b>Modification Development &amp; Implementation:</b>			
Unit 1 Modification Development (All FLEX Phases)	February 2015	Started	
Unit 1 Modification Implementation (All FLEX Phases)	April 2016	Not Started	
Unit 2 Modification Development (All FLEX Phases)	March 2014	Started	November 2014 (Mod implementation not affected)
Unit 2 Modification Implementation (All FLEX Phases)	April 2015	Not Started	
<b>Procedures:</b>			
Create Site-Specific Procedures	April 2015	Started	
Validate Procedures (NEI 12-06, Sect. 11.4.3)	February 2015	Not Started	
Create Maintenance Procedures	April 2015	Not Started	
Perform Staffing Analysis	November 2014	Not Started	
Storage Plan and Construction	April 2015	Started	
FLEX Equipment Acquisition	April 2015	Started	
Training Completion	April 2015	Not Started	

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Activity	Target Completion Date	Activity Status	Revised Target Completion Date
Regional Response Center Operational	December 2014	Started	
Unit 1 FLEX Implementation	April 2016	Started	For Hardened vent related compliance – See Section 5 of this enclosure.
Unit 2 FLEX Implementation	April 2015	Started	For Hardened vent related compliance – See Section 5 of this enclosure.
Full Site FLEX Implementation	April 2016	Started	For Hardened vent related compliance – See Section 5 of this enclosure.

#### 4 Changes to Compliance Method

Following submittal of the Overall Integrated Plan and the August 28, 2013 status report (Reference 4), Limerick has determined that modifications are not required to the plant 480 VAC switchgear. In place of modifications, the temporary generator connection will be made by inserting spare Motor Control Center (MCC) buckets into the MCCs at the time of the event. These actions can be completed in the required time frames. This change will still comply with NEI 12-06 (Reference 6) and will reduce the number of plant modifications required.

Following submittal of the Overall Integrated Plan and the August 28, 2013 status report, Limerick has determined that repowering of portions Division III 480 VAC electrical system is also not required. This bus was originally to be repowered to support recovery of installed Main Control Room (MCR) ventilation systems. The site has determined that installing temporary fans for MCR ventilation is adequate. Computations will document the requirements and procedures will be developed to install the required ventilation equipment.

There are no other changes to the FLEX strategies identified at this time.

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

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

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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. The Overall Integrated Plan (Reference 1) provided the Limerick Generating Station response to NRC Order EA-12-049. The cover letter 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 Overall Integrated Plan (Reference 1) enclosure describes the Limerick Generating 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 Limerick Generating 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, the NRC staff changed 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 Limerick Generating Station Units 1 and 2 will not be achieved until compliance to NRC Order EA-13-109 is achieved. Relief/relaxation from the NRC Order EA-12-049 IV.A.2 requirements is required.

Limerick Generating 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 Draft Safety Evaluation

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

Section Reference	Overall Integrated Plan Open Item	Status
Sequence of Events (p. 8)	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. 7) Installed Phase 1 Equipment (p.37)	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.	Started
Sequence of Events (p. 7)	Analysis of deviations between Exelon's	Completed (Reference 4)



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	engineering analyses and the analyses contained in BWROG Document NEDC-33771P, "GEH Evaluation of FLEX Implementation Guidelines" and documentation of results was not completed and submitted with the Overall Integrated Plan (Reference 1).	
Identify how strategies will be deployed in all modes (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.  Identification of storage areas and creation of the administrative program are open items.	Started
Identify how the programmatic controls will be met (p. 12)	An administrative program for FLEX to establish responsibilities, and testing & maintenance requirements will be implemented.	Not Started
Sequence of Events (p. 9)	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.	Not Started
Portable Equip Phase 2 (p. 50)	Complete an evaluation of the spent fuel pool area for steam and condensation.	Not Started
Installed Equip Phase 1 (p.47)  Portable Equip Phase 2 (p. 49)	Evaluate the habitability conditions for the Main Control Room and develop a strategy to maintain habitability.	Started
Installed Equip Phase 1 (p.47)  Portable Equip Phase 2 (p. 50)	Develop a procedure to prop open battery room doors upon energizing the battery chargers to prevent a buildup of hydrogen in the battery rooms.	Started

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Item Number	Interim Staff Evaluation Open Items / Confirmatory Actions	Status
Open Item 3.1.1.2.A	NEI 12-06 states that if power is required to move or deploy the equipment (e.g., to open the door from a storage location), then power supplies should be provided as part of the deployment. The Integrated Plan did not address whether or not power would be required to move or deploy equipment, and thus this evaluation must be completed satisfactorily.	Future 6-month update
Open Item 3.1.1.3.A	The licensee did not address actions to be taken if key instruments were lost due to a seismic event, as specified in NEI 12-06, section 5.3.3. Verify that this activity is completed satisfactorily.	Future 6-month update
Open Item 3.1.2.2.A	Further review is required regarding how the licensee will address NEI 12-06 Section 6.2.3.2 deployment considerations 2, 4, 5, and 8 with respect to transient floods. This review shall include an applicable procedure review.	Complete with this submittal - The design basis flood event at Limerick Generating Station is a transient flood due to a local intense precipitation. This flood has been analyzed by the site using defined flood plains, as shown on drawing ESK-SK-C-0378, Sheet 3. Based on current site analysis, flood levels during the local intense precipitation are at grade elevation in the southeast flood plains on site. Locations for the portable generators on site will be on the south side of the plant outside of the flood plains. Fuel for the generators will be from the diesel generator day tanks, located in the diesel enclosures, or the diesel generator main tanks, located south of the reactor enclosure outside of the flood plains. All connection points for the generators will be in the

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		<p>emergency diesel generator rooms or in the reactor enclosure (entrances on south side of the plant). Based on a review of the flood design at Limerick Generating Station, all requirements from NEI 12-06, Section 6.2.3.2 will be met for a transient flood. All material and supplies will be stored outside the required flood plains for a local intense precipitation. Electrical Connections are inside the diesel generator enclosure or the reactor enclosure, with entrances outside of the defined flood plains. No temporary flood barriers are used at Limerick Generating Station for flooding, and therefore do not require protection. Flexible pumps will be stored near the spray pond pump house with connections located in the spray pond pump house. This area is one of the highest elevations of the site and therefore, is not a concern for the transient flood.</p>
<p>Open Item 3.2.3.A</p>	<p>With regard to maintaining containment, the implementation of Boiling Water Reactor Owners Group (BWROG) Emergency Procedure Guideline (EPG)/Severe Accident Guideline (SAG), Revision 3, including any associated plant-specific evaluations, must be completed in accordance with the provisions of NRC letter dated January 9, 2014.</p>	<p>Future 6-month update</p>
<p>Open Item 3.2.4.2.C</p>	<p>With regard to elevated temperatures in general, the licensee should provide an evaluation of the impact of elevated temperatures, as a result of loss of ventilation and/or cooling, on electrical equipment being</p>	<p>Future 6-month update</p>

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	credited as part of the ELAP strategies (e.g., electrical equipment in the RCIC pump rooms).	
Open Item 3.4.A	The licensee should provide details that demonstrate the minimum capabilities for offsite resources will be met, per NEI 12-06 Section 12.2.	Future 6-month update
Confirmatory Item 3.1.1.4.A	With regard to offsite resources, confirm that the licensee develops a plan that will address the logistics for equipment transportation, area set up, and other needs for ensuring the equipment and commodities to sustain the site's coping strategies.	Future 6-month update
Confirmatory Item 3.1.5.2.A	The licensee stated that the design of the storage facilities will include provisions to ensure the equipment storage facilities are not impacted by high temperatures. Confirm that this is evaluated appropriately.	Future 6-month update
Confirmatory Item 3.2.1.1.A	Benchmarks must be identified and discussed which demonstrate that Modular Accident Analysis Program (MAAP) is an appropriate code for the simulation of an ELAP event at LGS, consistent with the NRC endorsement of the industry position paper on MAAP.	Future 6-month update
Confirmatory Item 3.2.1.1.B	Confirm that the collapsed reactor pressure vessel level remains above Top of Active Fuel and the reactor coolant system cool down rate is within technical specifications limits.	Future 6-month update
Confirmatory Item 3.2.1.1.C	Confirm that MAAP is used in accordance with Sections 4.1, 4.2, 4.3, 4.4, and 4.5 of the June 2013 position paper.	Future 6-month update
Confirmatory Item 3.2.1.1.D	Confirm that, in using MAAP, the licensee identifies and justifies the subset of key modeling parameters cited from Tables 4-1 through 4-6 of the "MAAP Application Guidance, Desktop Reference for Using MAAP Software, Revision 2" (Electric Power Research Institute Report 1020236).	Future 6-month update
Confirmatory Item 3.2.1.3.A	The licensee stated that the "times to complete actions in the events timeline are based on ...	Future 6-month update

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	current supporting analyses." Confirm that the final timeline is validated once detailed designs are completed and procedures are developed.	
Confirmatory Item 3.2.1.4.A	The licensee stated that the detailed design will determine containment heat-up rate and the subsequent impacts on RCIC operation and the need for any modifications. Confirm that this evaluation is completed satisfactorily.	Future 6-month update
Confirmatory Item 3.2.1.4.B	The licensee identified two RCIC room switch set points that were above the predicted maximum temperature but pointed out that the "RCIC Equipment Room Delta Temperature High" setpoint was below that temperature at 109 °F. It is not clear whether or not any of the setpoints would have an adverse impact on the planned use of the RCIC as a mitigation strategy. Thus, further clarification is needed for this issue.	The "RCIC Equipment Room Delta Temperature High" setpoint of 109 °F is used for steam leak detection in the RCIC room. Temperature Sensors for determining steam leak detection in the RCIC room are located on the inlet and outlet of the ventilation duct work in the RCIC room. Under the ELAP conditions, ventilation is not available in the RCIC room due to loss of power. The temperatures for steam leak detection will be approximately the same as no fresh air is pulled in through the duct work. Therefore, the delta temperature in the room will not result in a loss of RCIC. Limerick Generating Station EOPs already contain procedure guidance to bypass the RCIC steam leak detection isolations if required.

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<p>Confirmatory Item 3.2.1.4.C</p>	<p>Because the Integrated Plan makes reference to use of the Phase 3 equipment as backup, the Integrated Plan should address the guidance of NEI 12-06 regarding site procedures for Phase 3 implementation. The licensee addressed this concern during the audit response and stated that LGS would ensure connection capabilities of the Phase 3 offsite equipment to site systems and would develop any procedural guidance required for those connections. Confirm that the connections for the Phase 3 equipment have been properly determined, once the details are finalized.</p>	<p>Future 6-month update</p>
<p>Confirmatory Item 3.2.1.7.A</p>	<p>The licensee stated that LGS plans to abide by the generic resolution for refueling and cold shutdown conditions. The licensee stated that a review is in progress to develop a plan to address potential plant specific issues associated with implementing the generic approach. Confirm that this evaluation is completed satisfactorily.</p>	<p>Future 6-month update</p>
<p>Confirmatory Item 3.2.1.8.A</p>	<p>The licensee stated that the final design of the FLEX pump suction will determine if additional screens are required. Confirm that the potential for entrained debris as a result of extreme external hazards (e.g., suspended solids especially during flood conditions, or from high wind debris) in the cooling water from the spray pond is addressed.</p>	<p>Future 6-month update</p>
<p>Confirmatory Item 3.2.1.8.B</p>	<p>Insufficient technical information is presented or referenced in the Integrated Plan to confirm the ability of the portable FLEX pumps to deliver the required flow through the system of FLEX hoses, couplings, valves, elevation changes, etc. for the configurations described. Confirm that these evaluations are completed and documented.</p>	<p>Future 6-month update</p>
<p>Confirmatory Item 3.2.2.A</p>	<p>The licensee stated that formal calculations will be performed to validate the timing required for supplying cooling water to the spent fuel pool. Confirm that these calculations are performed, with acceptable results.</p>	<p>Future 6-month update</p>

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<p>Confirmatory Item 3.2.4.2.A</p>	<p>It was not clear from the information presented in the Integrated Plan what analysis or technical basis was used to conclude that the battery room temperature rise is inconsequential. Also, no discussion was presented to address possible low temperature effects. Confirm the adequacy of the battery room ventilation to protect the batteries from the effects of elevated or lowered temperatures.</p>	<p>Future 6-month update</p>
<p>Confirmatory Item 3.2.4.2.B</p>	<p>The licensee stated that battery room ventilation will be addressed through procedure changes and that the proposed methods of ventilation, open doors and fans, will be confirmed during the detailed design process. Confirm that this is completed satisfactorily.</p>	<p>Future 6-month update</p>
<p>Confirmatory Item 3.2.4.4.A</p>	<p>Confirm that the proposed communications upgrades in the licensee's communications assessment are completed as planned.</p>	<p>Future 6-month update</p>
<p>Confirmatory Item 3.2.4.5.A</p>	<p>The licensee stated that keys for access to the plant are available to security, the shift manager and to the radiation protection group. The licensee further stated that plant areas requiring access as part of the FLEX response, will be evaluated to determine if sufficient keys are available or if additional keys will be required. Confirm that this evaluation is completed.</p>	<p>Future 6-month update</p>
<p>Confirmatory Item 3.2.4.6.A</p>	<p>According to the licensee, habitability conditions will be evaluated and a strategy will be developed for the main control room. Confirm that the strategy and associated support analyses are completed</p>	<p>Future 6 month update</p>
<p>Confirmatory Item 3.2.4.6.B</p>	<p>With regard to the fuel building habitability, the licensee acknowledged that the evaluation of the spent fuel pool area for steam and condensation has not yet been performed. Confirm that this evaluation is completed, and its resulting conclusions satisfactorily addressed.</p>	<p>Future 6-month update</p>

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Confirmatory Item 3.2.4.8.A	The Integrated Plan did not provide information regarding the technical basis for the selection and size of the FLEX generators to be used in support of the coping strategies. Confirm that this evaluation is satisfactorily completed.	Future 6-month update
Confirmatory Item 3.2.4.10.B	The licensee stated minimum limit for the dc bus voltage is 105 volts. More information is needed to understand if this minimum voltage provides for sufficient operating voltages at the device terminals to ensure proper operation in support of the strategies.	The acceptance criteria for the ELAP battery evaluations is the same as that used for design basis events. Per the existing station Class 1E Battery Load Duty Cycle calculation (LE-0052), the station Class 1E 125/250 VDC minimum acceptable battery voltage is 105/210VDC. This voltage value is used to ensure that MCC voltage used for determining component operability (MOVs) will be maintained.
Confirmatory Item 3.2.4.10.C	Although the licensee addressed the potential adverse impact from load shedding on main generator hydrogen control, the licensee needs to address any other potential adverse impacts to mitigation strategies resulting from the load shed plan.	Future 6-month 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. Limerick Generating Station Units 1 and 2, "Overall Integrated Plan in Response to March 12, 2012 Commission Order Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events (Order Number EA-12-049)," dated February 28, 2013 (RS-13-022).
2. NRC Order Number EA-12-049, "Issuance of Order to Modify Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events," dated March 12, 2012.



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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. Limerick Generating Station Units 1 and 2, "First Six-Month Status Report in Response to March 12, 2012 Commission Order Modifying Licenses with Regard to Requirements for Mitigating Strategies for Beyond-Design Basis External Events (Order Number EA-12-049)." Dated August 28, 2013 (RIS 13-123).
5. Limerick Generating Station Units 1 and 2, "Interim Staff Evaluation Relating to Overall Integrated Plan in Response to Order EA-12-049 (Mitigating Strategies)" dated January 10, 2014.
6. NEI 12-06, "Diverse and Flexible Coping Strategies (FLEX) Implementation Guide," Revision 0, dated August 2012

**9 Attachments**

None