



Order No. EA-12-049

RS-15-020

February 27, 2015

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: Fourth 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)
7. Exelon Generation Company, LLC 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), dated February 28, 2014 (RS-14-011)

8. Exelon Generation Company, LLC Third 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, 2014 (RS-14-209)
9. NRC letter to Exelon Generation Company, LLC, LaSalle County Station, Units 1 and 2 – Interim Staff Evaluation Relating to Overall Integrated Plan in Response to Order EA-12-049 (Mitigation Strategies) (TAC Nos. MF1121 and MF1122), dated February 21, 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.

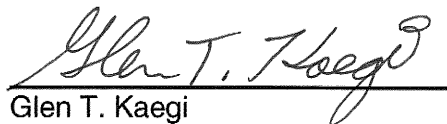
Reference 1 required submission of an initial status report 60 days following issuance of the final interim staff guidance (Reference 2) and an overall integrated plan pursuant to Section IV, Condition C. Reference 2 endorses industry guidance document NEI 12-06, Revision 0 (Reference 3) with clarifications and exceptions identified in Reference 2. Reference 4 provided the EGC initial status report regarding mitigation strategies. Reference 5 provided the 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. References 6, 7, and 8 provided the first, second, and third six-month status reports, respectively, pursuant to Section IV, Condition C.2, of Reference 1 for LaSalle County Station. The purpose of this letter is to provide the fourth 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 9.

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 27th day of February 2015.

Respectfully submitted,



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

Enclosure:

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

cc: Director, Office of Nuclear Reactor Regulation
NRC Regional Administrator - Region III
NRC Senior Resident Inspector – LaSalle County Station, Units 1 and 2
NRC Project Manager, NRR – LaSalle County Station, Units 1 and 2
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Mr. Jeremy S. Bowen, NRR/DPR/MSD/MSPB, NRC
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Mr. John P. Boska, NRR/JLD/JOMB, NRC
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Enclosure

LaSalle County Station, Units 1 and 2

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

(21 pages)

LaSalle County Station, Units 1 and 2
 Fourth Six Month Status Report for the Implementation of FLEX
 February 27, 2015
 Enclosure

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

1 Introduction

LaSalle County Station, Units 1 and 2 developed an Overall Integrated Plan (Reference 1), documenting the diverse and flexible strategies (FLEX), in response to Reference 2. This enclosure provides an update of milestone accomplishments since submittal of the Overall Integrated Plan, including any changes to the compliance method, schedule, or need for relief/relaxation and the basis, if any.

NOTE: The "Status" indicated in this document is as of January 20, 2015. This date was chosen to support the development, review, approval and submittal of this report by the required February 27, 2015 due date.

2 Milestone Accomplishments

The Third 6 Month Update was submitted in August 2014. Additionally, the Phase 2 Staffing Analysis was completed by October 2014.

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.

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 National SAFER Response Center (NSRC)		Complete	
Submit 6 Month Updates:			
Update 1	Aug 2013	Complete	
Update 2	Feb 2014	Complete	
Update 3	Aug 2014	Complete	
Update 4	Feb 2015	Complete with this submittal	
Update 5	Aug 2015	Not Started	
Update 6	Feb 2016	Not Started	
Update 7	Aug 2016	Not Started	
Update 8	Feb 2017	Not Started	
Update 9	Aug 2017	Not Started	
Update 10	Feb 2018	Not Started	

LaSalle County Station, Units 1 and 2
 Fourth Six Month Status Report for the Implementation of FLEX
 February 27, 2015

Activity	Target Completion Date	Activity Status	Revised Target Completion Date
Submit Completion Report	Sep 2017	Not Started	May 2018 See Section 5 of this enclosure
Modification Development & Implementation:			
Unit 1 Modification Development (All FLEX Phases)	Jan 2015	Started	Jan 2016
Unit 1 Modification Implementation (All FLEX Phases)	Mar 2016	Not Started	
Unit 2 Modification Development (All FLEX Phases)	Jan 2014	Started	Jan 2015
Unit 2 Modification Implementation (All FLEX Phases)	Feb 2015	Started	
Procedures:			
Create Site-Specific Procedures	Feb 2015	Started	
Validate Procedures (NEI 12-06, Sect. 11.4.3)	Feb 2015	Started	
Create Maintenance Procedures	Feb 2015	Started	
Perform Staffing Analysis	Oct 2014	Completed	
Storage Plan and Construction	Feb 2015	Started	
FLEX Equipment Acquisition	Feb 2015	Started	
Training Completion	Feb 2015	Started	
National SAFER Response Center Operational	Dec 2014	Started	Feb 2015
Unit 1 FLEX Implementation	Mar 2016	Started	Mar 2018 See Section 5 of this enclosure
Unit 2 FLEX Implementation	Feb 2015	Started	Feb 2017 See Section 5 of this enclosure
Full Site FLEX Implementation	Mar 2016	Started	Mar 2018 See Section 5 of this enclosure

LaSalle County Station, Units 1 and 2
Fourth Six Month Status Report for the Implementation of FLEX
February 27, 2015

4 Changes to Compliance Method

As a result of the detailed design activities, the following changes have been made to the compliance method since the Third Six Month Status Report (Ref. 9):

- Credited instrumentation, by function, has been changed as follows:
 - Maintain Core Cooling
 - Deleted - 1(2)C34-N004B, RPV Narrow Range Level (Control Room Indicator 1(2)C34-R606B)
 - Deleted - 1(2)C34-N004C, RPV Narrow Range Level (Control Room Indicator 1(2)C34-R606C)
 - Maintain Containment
 - Deleted - 1(2)TI-CM045, Drywell Temperature (Remote Shutdown Panel)
 - Deleted - 1(2)C71-N004, Drywell Narrow Range Pressure (Local Rx Bldg 761 Elev.)
 - Deleted - 1(2)CM02M, Suppression Pool Narrow Range Level (Local Rx Bldg 694 Elev.)
 - Deleted - 1(2)TI-CM040, Suppression Pool Air Temperature (Remote Shutdown Panel)
 - Changed - 1(2)TI-CM037, Suppression Pool Water Temperature (Remote Shutdown Panel), Range expanded to 0 – 250 deg F
 - Added - 1(2)PI-CM029, Drywell Pressure (Control Room)
 - Added - 1(2)PI-CM056, Suppression Chamber Pressure (Control Room)
 - Added - 1(2)LI-CM192, Suppression Pool Level (Control Room)
 - Maintain Spent Fuel Pool Cooling (Instruments installed per Order EA-12-051)
 - Added – 1(2)LI-FC165, Spent Fuel Pool Level Indication (Aux Bldg 731 Elev.)

In addition to the changes described above, the equipment listings for Phase 2 and Phase 3 (National SAFER Response Center (NSRC) equipment) are updated in Attachments 1 and 2, respectively.

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

By letter dated February 27, 2014 (Ref. 3), LaSalle County Station requested relaxation from certain schedule requirements of Order EA-12-049 (Ref. 2) related to installation of the severe accident capable containment vent required by Order EA-13-109 (Ref. 6). The NRC granted that schedule relief via letter dated April 15, 2014 (Ref. 4).

No additional need for relief/relaxation relative to Order EA-12-049 has been identified at this time.

6 Open Items from Overall Integrated Plan and Interim Staff Evaluation

The following tables provide a summary of the open items documented in the Overall Integrated Plan or the Interim Staff Evaluation (ISE) (Ref. 5) and the status of each item. **NOTE: The “Status” indicated below is as of January 20, 2015. This date was chosen to support the development, review, approval and submittal of this report by the required February 27, 2015 due date.**

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.	STARTED

LaSalle County Station, Units 1 and 2
 Fourth Six Month Status Report for the Implementation of FLEX
 February 27, 2015

Section Reference	Overall Integrated Plan Open Item	Status
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 Reference 8 contains the analysis.
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. Identification of storage areas and creation of the administrative program are open items.	STARTED
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.	COMPLETED Evaluation documented in EC 399297, Rev. 0.
Fuel Pool Cooling Phase 1 (p.35)	Complete an evaluation of the spent fuel pool area for steam and condensation.	COMPLETED Evaluation documented in calculation L-003968, Rev. 0.

LaSalle County Station, Units 1 and 2
 Fourth Six Month Status Report for the Implementation of FLEX
 February 27, 2015

Section Reference	Overall Integrated Plan Open Item	Status
Safety Functions Support Phase 1 (p.44)	Evaluate the habitability conditions for the Main Control Room and develop a strategy to maintain habitability.	STARTED Evaluation documented in calculation L-003969 Rev. 0. Strategy defined in LOA-FSG-005, "Area Ventilation."
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.	STARTED Evaluation documented in calculation L-003969 Rev. 0. Strategy defined in LOA-FSG-005, "Area Ventilation."
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.	STARTED LOA-FSG-005, "Area Ventilation," addresses propping open the applicable battery room doors.

LaSalle County Station, Units 1 and 2
 Fourth Six Month Status Report for the Implementation of FLEX
 February 27, 2015

Interim Staff Evaluation Open and Confirmatory Items		
<u>Open Items</u>		
Item Number	Description	Status
3.2.3.A	Verify the modifications associated with Order EA 13-109 on a Hardened Containment Vent System support the sequence of events and actions associated with the LSCS mitigating strategies.	See NOTE below.
<u>Confirmatory Items</u>		
Item Number	Description	Status
3.1.1.2.A	Confirm that soil liquefaction will not prevent movement of equipment along transportation paths.	See NOTE below.
3.1.1.2.B	Confirm that the egress path for personnel to reach the FLEX storage building is seismically robust, or multiple egress paths that are not seismically robust are identified.	See NOTE below
3.1.1.4.A	Confirm that the logistics for equipment transportation, area set up, and other needs for ensuring the equipment and commodities to sustain the site's coping strategies are available from offsite resources.	See NOTE below
3.1.3.1.A	If the licensee credits separation of storage sites to address tornado threats, confirm that the axis of separation and distance between storage locations will provide assurance that a single tornado would not impact all locations if the licensee relies on NEI 12-06, Section 7.3.1, configurations 1.b or 1.c for protection of the portable equipment from the high winds hazard.	See NOTE below
3.2.1.1.A	Confirm that benchmarks are identified and discussed that demonstrate that the Modular Accident Analysis Program (MAAP) is an appropriate code for the simulation of an ELAP event at LSCS.	See NOTE below
3.2.1.1.B	Confirm that the collapsed level remains above Top of Active Fuel (TAF) and the cool down rate remains within technical specification limits for MAAP analyses.	See NOTE below
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 (ADAMS Accession No. ML13190A201).	See NOTE below
3.2.1.1.D	Confirm that the licensee identifies and justifies the subset of key modeling parameters cited from Tables	See NOTE below

LaSalle County Station, Units 1 and 2
 Fourth Six Month Status Report for the Implementation of FLEX
 February 27, 2015

Interim Staff Evaluation Open and Confirmatory Items		
	4-1 through 4-6 of the “MAAP Application Guidance, Desktop Reference for Using MAAP Software, Revision 2” (Electric Power Research Institute Report 1020236). This should include response at a plant-specific level regarding specific modeling options and parameter choices for key models that would be expected to substantially affect the ELAP analysis performed for that licensee’s plant.	
3.2.1.1.E	Confirm that the specific MAAP analysis case that was used to validate the timing of mitigating strategies in the Integrated Plan is identified and is appropriate for LSCS. Alternately, a comparable level of information may be included in the supplemental response.	See NOTE below
3.2.1.2.A	Confirm adequacy of the technical basis for the assumptions made regarding the leakage rate through the recirculation pump seals and other sources. The analysis should include the assumed pressure-dependence of the leakage rate, and whether the leakage was determined or assumed to be single-phase liquid, two-phase mixture, or steam at the donor cell, and how mixing the leakage flow with the drywell atmosphere is modeled.	See NOTE below
3.2.1.3.A	Confirm that taking readings from a standpipe which is not safety related or seismic does not make the CST level instrumentation inadequate for the automatic swap or informing the operators of CST loss so that they may respond with manual action using the control switches located in the main control room.	See NOTE below
3.2.1.4.A	Confirm that pump sizing results consider required water flow rates, the portable/FLEX pump complete head/flow characteristics, suction and discharge losses, system backpressure, elevation differences and piping losses to allow verification that this will be a successful strategy.	See NOTE below
3.2.1.4.B	Confirm the generator sizing results consider appropriate electrical loads and adequate capacity of portable/FLEX electrical generators planned for use during Phase 2 and Phase 3.	See NOTE below
3.2.2.A	Confirm completion of the evaluation of the SFP area for steam and condensation and implementation of a vent path strategy, if needed.	See NOTE below
3.2.4.1.A	Confirm that operation of RCIC with suction	See NOTE below

LaSalle County Station, Units 1 and 2
 Fourth Six Month Status Report for the Implementation of FLEX
 February 27, 2015

Interim Staff Evaluation Open and Confirmatory Items		
	temperatures above 200°F is acceptable.	
3.2.4.2.A	Confirm that the licensee provides acceptable hydrogen gas ventilation.	See NOTE below
3.2.4.4.A	Confirm that the upgrades to the plant communication systems discussed in the licensee communications assessment (ADAMS Accession Nos. ML12306A199 and ML13056A135) in response to the March 12, 2012 50.54(f) request for information letter for Limerick (sic) and, as documented in the staff analysis (ADAMS Accession No. ML13114A067) have been completed.	See NOTE below
3.2.4.6.A	Confirm that the proceduralized “toolbox” approach can ensure vital area habitability and confirm the proper staging and protection of any equipment to implement this approach.	See NOTE below
3.2.4.7.A	Confirm that the design of the FLEX pump suction will prevent introducing excessive amounts of entrained debris as a result of extreme external hazards (e.g., suspended solids especially from high wind debris) in the cooling water from the Lake Screen House/Lake.	See NOTE below
3.2.4.10.A	Confirm that the high/low temperature analysis (i.e., temperatures above/below those currently assumed in the sizing calculations) shows no adverse effects on expected battery life.	See NOTE below
3.4.A	Confirm conformance to considerations 2 through 10 of NEI 12-06, Section 12.2 for the use of offsite resources or that an acceptable alternate is developed.	See NOTE below

NOTE: The information with respect to these ISE Open and Confirmatory items was presented to the NRC FLEX Audit Team during their onsite visit the week of January 12, 2015. Work is either in-progress or completed for each of the items. The “status” of the item (OPEN or CLOSED) is determined by the NRC through the audit process. Preliminary classification from the Audit Team, pending review and approval through the NRC audit report generation and approval process, is that all of these items are to be stasued as closed with the single exception of the Exelon approach to storage of ‘+1’ equipment in a non-fully protected structure (relates to ISE Confirmatory Item 3.1.3.1.A). This particular item is being resolved via ongoing discussion between the NRC and Exelon. The status of all of these items will be updated in a future 6-Month Update pending receipt of the NRC FLEX Audit Report.

7 Potential Draft Safety Evaluation Impacts

The FLEX strategy changes described in this update have the potential to impact the DRAFT Safety Evaluation.

LaSalle County Station, Units 1 and 2
Fourth Six Month Status Report for the Implementation of FLEX
February 27, 2015

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 (ADAMS Accession No. ML13060A421).
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. Exelon/LaSalle Request for Relaxation from NRC Order EA-12-049, dated February 27, 2014 (ADAMS Accession No. ML14059A076).
4. NRC Approval of Exelon/LaSalle Request for Relaxation from NRC Order EA-12-049, dated April 15, 2014 (ADAMS Accession No. ML14071A455).
5. LaSalle County Station, Units 1 and 2 – Interim Staff Evaluation Relating to Overall Integrated Plan in Response to Order EA-12-049 (Mitigation Strategies), dated February 21, 2014 (ADAMS Accession No. ML14030A220(package)).
6. NRC Order Number EA-13-109, "Order Modifying Licenses With Regard to Reliable Hardened Containment Vents Capable of Operation Under Severe Accident Conditions," dated June 6, 2013.
7. LaSalle County Station, Units 1 and 2 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), dated February 28, 2014 (ADAMS Accession No. ML14059A431).
8. LaSalle County 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 Mitigation Strategies for Beyond-Design-Basis External Events (Order Number EA-12-049), dated August 28, 2013 (ADAMS Accession No. ML13241A283).
9. LaSalle County Station, Units 1 and 2, Third 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, 2014 (not yet entered in ADAMS).

9 Attachments

1. Portable Equipment Phase 2
2. Portable Equipment Phase 3

LaSalle County Station, Units 1 and 2
 Fourth Six Month Status Report for the Implementation of FLEX
 February 27, 2015
 Attachment 1

LaSalle Portable Equipment Phase 2							
<i>Use and (potential / flexibility) diverse uses</i>						<i>Performance Criteria</i>	<i>Maintenance</i>
<i>List portable equipment</i>	Core	Containment	SFP	Instrumentation	Accessibility		Maintenance / PM requirements
Two (2) Hale IP4000DIM-TCL portable diesel driven pumps with two (2) hydraulic submersible booster pumps	X	X	X			Nominal 4,000 gpm main pump at 150 psig. Hydraulic booster pumps nominal 2,000 gpm.	Equipment maintenance and testing will be performed in accordance with the industry templates, as outlined in JLD-ISG-2012-01 section 6 and NEI 12-06 section 11.
Three (3) 480 VAC Portable Diesel Driven Generators	X	X	X	X	X	500kW	Equipment maintenance and testing will be performed in accordance with the industry templates, as outlined in JLD-ISG-2012-01 section 6 and NEI 12-06 section 11.
Two (2) tandem axle cable trailers with cable reels	X	X	X	X	X	'2N' sets of cable located on one trailer in protected FLEX building. '+1' set of cable located on one trailer in commercial FLEX building.	Equipment maintenance and testing will be performed in accordance with the industry templates, as outlined in JLD-ISG-2012-01 section 6 and NEI 12-06 section 11.

LaSalle County Station, Units 1 and 2
 Fourth Six Month Status Report for the Implementation of FLEX
 February 27, 2015

LaSalle Portable Equipment Phase 2							
<i>Use and (potential / flexibility) diverse uses</i>						<i>Performance Criteria</i>	<i>Maintenance</i>
<i>List portable equipment</i>	Core	Containment	SFP	Instrumentation	Accessibility		Maintenance / PM requirements
One (1) Tandem Axle Hose Trailer	X	X	X			Haul portable water manifold and 6" hoses	Equipment maintenance and testing will be performed in accordance with the industry templates, as outlined in JLD-ISG-2012-01 section 6 and NEI 12-06 section 11.
One (1) Hydraulic Hose Reel Trailer	X	X	X			Haul and deploy 10" water hose	Equipment maintenance and testing will be performed in accordance with the industry templates, as outlined in JLD-ISG-2012-01 section 6 and NEI 12-06 section 11.
One (1) Kubota M9960 Tractor with quick- attach bucket and fork assemblies, pintel hitch	X	X	X		X	Tow vehicle, portable equipment refueling (when paired with 390 gal diesel fuel trailer), debris removal, provides hydraulics for Hydraulic Hose Reel Trailer	Equipment maintenance and testing will be performed in accordance with the industry templates, as outlined in JLD-ISG-2012-01 section 6 and NEI 12-06 section 11.

LaSalle County Station, Units 1 and 2
 Fourth Six Month Status Report for the Implementation of FLEX
 February 27, 2015

LaSalle Portable Equipment Phase 2							
<i>Use and (potential / flexibility) diverse uses</i>						<i>Performance Criteria</i>	<i>Maintenance</i>
<i>List portable equipment</i>	Core	Containment	SFP	Instrumentation	Accessibility		Maintenance / PM requirements
Ford F750 Truck w/snow plow and two (2) 118 gal diesel fuel tanks with pump and dispensing equipment	X	X	X		X	Tow vehicle, portable equipment refueling vehicle, and debris removal vehicle	Equipment maintenance and testing will be performed in accordance with the industry templates, as outlined in JLD-ISG-2012-01 section 6 and NEI 12-06 section 11.
One (1) 390 gallon portable diesel fuel trailer	X	X	X			Contains additional fuel for Hale Pumps and can be used for portable equipment refueling	Equipment maintenance and testing will be performed in accordance with the industry templates, as outlined in JLD-ISG-2012-01 section 6 and NEI 12-06 section 11.
Eight (8) 5.5 kW portable diesel generators					X	5.5 kW, 120/240VAC, one (1) to be located on each cable trailer, two (2) to be located in the protected FLEX bldg housing the Hale Pumps, and four (4) to be located in the main protected FLEX storage bldg.	Equipment maintenance and testing will be performed in accordance with the industry templates, as outlined in JLD-ISG-2012-01 section 6 and NEI 12-06 section 11.

LaSalle County Station, Units 1 and 2
 Fourth Six Month Status Report for the Implementation of FLEX
 February 27, 2015

LaSalle Portable Equipment Phase 2							
<i>Use and (potential / flexibility) diverse uses</i>						<i>Performance Criteria</i>	<i>Maintenance</i>
<i>List portable equipment</i>	Core	Containment	SFP	Instrumentation	Accessibility		Maintenance / PM requirements
Ten (10) portable fans with ducting (Support RCIC and other room cooling)	X				X	115 VAC, 5,000 SCFM	Equipment maintenance and testing will be performed in accordance with the industry templates, as outlined in JLD-ISG-2012-01 section 6 and NEI 12-06 section 11.
Two (2) Oscillating Spray Fire Monitors (Support SFP Spray)			X			250 gpm	Equipment maintenance and testing will be performed in accordance with the industry templates, as outlined in JLD-ISG-2012-01 section 6 and NEI 12-06 section 11.
Miscellaneous fire hose and fittings	X	X	X			Various	Equipment maintenance and testing will be performed in accordance with the industry templates, as outlined in JLD-ISG-2012-01 section 6 and NEI 12-06 section 11.

LaSalle County Station, Units 1 and 2
 Fourth Six Month Status Report for the Implementation of FLEX
 February 27, 2015

LaSalle Portable Equipment Phase 2							
<i>Use and (potential / flexibility) diverse uses</i>						<i>Performance Criteria</i>	<i>Maintenance</i>
<i>List portable equipment</i>	Core	Containment	SFP	Instrumentation	Accessibility		Maintenance / PM requirements
Miscellaneous Electrical Cable and Connectors	X	X	X	X	X	Various	Equipment maintenance and testing will be performed in accordance with the industry templates, as outlined in JLD-ISG-2012-01 section 6 and NEI 12-06 section 11.
12 “spider” boxes to distribute electrical power	X	X	X	X	X	Provide AC power for portable fans, lighting, etc.	Equipment maintenance and testing will be performed in accordance with the industry templates, as outlined in JLD-ISG-2012-01 section 6 and NEI 12-06 section 11.
Portable Inflatable Tower Lighting (Ten 10’ units, Four 14’ units)					X	AC powered	Equipment maintenance and testing will be performed in accordance with the industry templates, as outlined in JLD-ISG-2012-01 section 6 and NEI 12-06 section 11.

LaSalle County Station, Units 1 and 2
 Fourth Six Month Status Report for the Implementation of FLEX
 February 27, 2015

LaSalle Portable Equipment Phase 2							
<i>Use and (potential / flexibility) diverse uses</i>						<i>Performance Criteria</i>	<i>Maintenance</i>
<i>List portable equipment</i>	Core	Containment	SFP	Instrumentation	Accessibility		Maintenance / PM requirements
6 large area fans					X	AC. 13,300 cfm.	Equipment maintenance and testing will be performed in accordance with the industry templates, as outlined in JLD-ISG-2012-01 section 6 and NEI 12-06 section 11.
Portable battery operated fans (5)					X	AC/DC, variable speed, 5,000 to 15,000 cfm	Equipment maintenance and testing will be performed in accordance with the industry templates, as outlined in JLD-ISG-2012-01 section 6 and NEI 12-06 section 11.
Hydraulic "rescue" cutters (1)					X	Maximum 236,250 psf lbf, 6 hp diesel engine	Equipment maintenance and testing will be performed in accordance with the industry templates, as outlined in JLD-ISG-2012-01 section 6 and NEI 12-06 section 11.

LaSalle County Station, Units 1 and 2
 Fourth Six Month Status Report for the Implementation of FLEX
 February 27, 2015

LaSalle Portable Equipment Phase 2							
<i>Use and (potential / flexibility) diverse uses</i>						<i>Performance Criteria</i>	<i>Maintenance</i>
<i>List portable equipment</i>	Core	Containment	SFP	Instrumentation	Accessibility		Maintenance / PM requirements
Hydraulic circular saw					X	14 inch, 10 hp diesel engine	Equipment maintenance and testing will be performed in accordance with the industry templates, as outlined in JLD-ISG-2012-01 section 6 and NEI 12-06 section 11.
Circular cut-off saw					X	14 inch, 6.7 hp gas engine (canned gas to be stored, saw only used external to Reactor Bldg for cutting hole in roof above spent fuel pools)	Equipment maintenance and testing will be performed in accordance with the industry templates, as outlined in JLD-ISG-2012-01 section 6 and NEI 12-06 section 11.
Miscellaneous cold weather gear					X	Coveralls, gloves, hoods	N/A
Cooling vests and spare cooling packs					X	To support "toolbox" approach for area habitability	N/A
Porta-potties (4)					X		N/A

LaSalle County Station, Units 1 and 2
 Fourth Six Month Status Report for the Implementation of FLEX
 February 27, 2015

LaSalle Portable Equipment Phase 2							
<i>Use and (potential / flexibility) diverse uses</i>						<i>Performance Criteria</i>	<i>Maintenance</i>
<i>List portable equipment</i>	Core	Containment	SFP	Instrumentation	Accessibility		Maintenance / PM requirements
(4) Portable (AC) fuel transfer pumps and hoses	X	X	X	X	X		Equipment maintenance and testing will be performed in accordance with the industry templates, as outlined in JLD-ISG-2012-01 section 6 and NEI 12-06 section 11.
Three (3) battery-powered trailer movers	X	X	X	X	X	Move large trailers in/out of FLEX storage buildings	Equipment maintenance and testing will be performed in accordance with the industry templates, as outlined in JLD-ISG-2012-01 section 6 and NEI 12-06 section 11.
Sound-powered phone equipment	X	X	X	X	X	Headsets, extra cable sections	N/A
Handheld radios	X	X	X	X	X	Additional radios for use in talk-around mode, batteries, chargers	N/A

LaSalle County Station, Units 1 and 2
 Fourth Six Month Status Report for the Implementation of FLEX
 February 27, 2015
 Attachment 2

BWR Portable Equipment Phase 3 (Generic Equipment)

Note: The equipment listed is the generic equipment list provided by the National SAFER Response Center and even though LaSalle does not require this equipment in our FLEX strategies, this equipment will be available from the NSRC and could be utilized in the Phase 3 time period. {Based on AREVA “National SAFER Response Center Equipment Technical Requirements” document 51-9199717-013.}

<i>Use and (potential / flexibility) diverse uses</i>						<i>Performance Criteria</i>	<i>Notes</i>
<i>List portable equipment</i>	Core	Containment	SFP	Instrumentation	Accessibility		
Medium Voltage Diesel Generator	X	X	X	X	X	1 MW output at 4160 Vac, three phase ^{Note 1}	
Low Voltage Diesel Generator	X	X	X	X	X	1100 kW output at 480 Vac, three phase ^{Note 2}	
High Pressure Injection Pump	X					2000 psi, 60 gpm capacity	
SG/RPV Makeup Pump	X					500 psi / 500 gpm	
Low Pressure / Medium Flow Pump	X	X	X			300 psi, 2500 gpm	
Low Pressure / High Flow Pump	X	X	X			150 psi, 5000 gpm	
Cable / Electrical	X	X	X	X		Various as determined by AREVA document # 51 - 9199717 - 013	

LaSalle County Station, Units 1 and 2
 Fourth Six Month Status Report for the Implementation of FLEX
 February 27, 2015

BWR Portable Equipment Phase 3 (Generic Equipment)

Note: The equipment listed is the generic equipment list provided by the National SAFER Response Center and even though LaSalle does not require this equipment in our FLEX strategies, this equipment will be available from the NSRC and could be utilized in the Phase 3 time period. {Based on AREVA “National SAFER Response Center Equipment Technical Requirements” document 51-9199717-013.}

<i>Use and (potential / flexibility) diverse uses</i>						<i>Performance Criteria</i>	<i>Notes</i>
<i>List portable equipment</i>	Core	Containment	SFP	Instrumentation	Accessibility		
Hose / Mechanical Connections	X	X	X			Various as determined by AREVA document # 51 - 9199717 - 013	
Lighting Towers					X	440,000 lumens	
Diesel Fuel Transfer						500 gallon air-lift container	
Diesel Fuel Transfer Tank						264 gallon tank, with mounted AC/DC pumps	
Portable Fuel Transfer Pump						60 gpm after filtration	
Electrical Distribution System						4160 V, 250 MVA, 1200 A	

Note 1: 1 MW is the individual generator output, and 2 MW is the total standard output to be supplied by the Phase 3 MV generators to satisfy identified load demands. The total output is created by connection of several smaller generators in parallel. Loads in excess of 2 MW are planned to be addressed as additional generators classified as non-generic equipment (see Section 8.4 of AREVA document).

Note 2: The 1100 kW unit is derated to 1000 kW.

LaSalle County Station, Units 1 and 2
 Fourth Six Month Status Report for the Implementation of FLEX
 February 27, 2015

LaSalle Portable Equipment Phase 3 (Non-Generic Equipment)							
<i>Use and (potential / flexibility) diverse uses</i>						<i>Performance Criteria</i>	<i>Notes</i>
<i>List portable equipment</i>	Core	Containment	SFP	Instrumentation	Accessibility		
2500/5000 GPM Suction Booster Lift Pumps	X	X	X			The Suction Booster Lift Pump will assist in providing 26 feet of suction lift to the Low Pressure Medium Flow Pumps and the Low Pressure High Flow Pumps.	AREVA “National SAFER Response Center Equipment Technical Requirements” document 51-9199717-013 (Page 60) identifies LaSalle participation in this equipment committee.

LaSalle County Station, Units 1 and 2
Fourth Six Month Status Report for the Implementation of FLEX
February 27, 2015

Phase 3 Response Equipment/Commodities	
Item	Notes
Radiation Protection Equipment <ul style="list-style-type: none">• Survey instruments• Dosimetry• Off-site monitoring/sampling	These types of equipment will be requested from site-to-site and utility-to-utility on an as required basis.
Commodities <ul style="list-style-type: none">• Food• Potable water	These types of commodities will be requested from site-to-site and utility-to-utility on an as required basis.