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PSEG
Nuclear LLC

Order EA-12-049

LR-N14-0025

FEB 25 2014

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

Hope Creek Generating Station
Renewed Facility Operating License No. NPF-57
NRC Docket No. 50-354

Subject: PSEG Nuclear LLC's Second Six-Month Status Report for the Hope Creek Generating Station 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

2. PSEG Letter LR-N13-0031, "PSEG Nuclear LLC's Overall Integrated Plan for the Hope Creek Generating Station 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, 2013

3. PSEG Letter LR-N13-0173, "PSEG Nuclear LLC's First Six-Month Status Report for the Hope Creek Generating Station 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 22, 2013

4. 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

5. Nuclear Energy Institute (NEI) Report NEI 12-06, "Diverse and Flexible Coping Strategies (FLEX) Implementation Guide," Revision 0, dated August 2012

6. NRC Letter to PSEG, "Hope Creek Generating Station – Interim Staff Evaluation Relating to Overall Integrated Plan in Response to Order EA-12-049 (Mitigation Strategies) (TAC NO. MF0867)," dated February 11, 2014

On March 12, 2012, the Nuclear Regulatory Commission (NRC) issued Order EA-12-049 (Reference 1) to PSEG Nuclear LLC (PSEG). NRC Order EA-12-049 was immediately effective and directed PSEG 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. In accordance with Section IV.C of NRC Order EA-12-049, PSEG submitted an Overall Integrated Plan (OIP) for the Hope Creek Generating Station (HCGS), on February 27, 2013 (Reference 2). In accordance with Condition IV.C.2 of NRC Order EA-12-049, PSEG provided the first six-month status report to summarize the progress made in implementing the requirements of the Order, on August 22, 2013 (Reference 3). The purpose of this letter is to provide the second six-month status report for HCGS, pursuant to Condition IV.C.2 of NRC Order EA-12-049.

NRC Interim Staff Guidance JLD-ISG-2012-01(Reference 4) endorsed, with clarifications, Nuclear Energy Institute (NEI) Report 12-06, Revision 0 (Reference 5) as an acceptable means of meeting the requirements of NRC Order EA-12-049. NEI 12-06 provides direction regarding the content of the status reports; i.e., the reports should include an update of milestone accomplishments since the last status report, including any changes to the compliance method, schedule, and the need for relief and the basis for relief, if applicable. Enclosure 1 provides the second six-month status report for HCGS, in accordance with the NRC-endorsed guidance of NEI 12-06. Enclosure 1 reflects the status of FLEX implementation as of January 31, 2014 and includes a status of open items and confirmatory items identified in the NRC's interim staff evaluation report for HCGS (Reference 6). There are no changes in compliance method or requests for regulatory relief identified in Enclosure 1.

There are no regulatory commitments contained in this letter.

If you have any questions or require additional information, please do not hesitate to contact Mrs. Emily Bauer at 856-339-1023.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on 2-25-14
(Date)

Sincerely,

Paul J. Davison

Paul J. Davison
Site Vice President
Hope Creek Generating Station

Enclosure 1: Hope Creek Generating Station 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: Mr. E. Leeds, Director of Office of Nuclear Reactor Regulation
Mr. W. Dean, Administrator, Region I, NRC
Mr. J. Hughey, Project Manager, NRC
NRC Senior Resident Inspector, Hope Creek
Mr. P. Mulligan, Manager IV, NJBNE
Hope Creek Commitment Tracking Coordinator
PSEG Corporate Commitment Coordinator

FEB 25 2014

ENCLOSURE 1

LR-N14-0025

Hope Creek Generating Station 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

Hope Creek Generating Station
PSEG Nuclear LLC

1 Introduction

PSEG Nuclear LLC (PSEG) developed an Overall Integrated Plan (OIP) (Reference 1) for the Hope Creek Generating Station (HCGS), documenting the diverse and flexible coping strategies (FLEX) in response to NRC Order EA-12-049 (Reference 2). By letter dated August 22, 2013 (Reference 3), PSEG transmitted the first six-month status report associated with the HCGS FLEX OIP. Provided herein is the second six-month status report, for the reporting period ending January 31, 2014. This update follows the guidance in Section 13.2 of Nuclear Energy Institute (NEI) Report 12-06 (Reference 4), which states that the six-month status reports should include an update of milestone accomplishments since the previous report, changes to the compliance method, schedule, and the need for relief and the basis for relief, if applicable. Sections 2 and 3 of this status report include milestone accomplishments and milestone schedule status, respectively. There are no changes to compliance method identified in Section 4 of this report. Section 5 addresses the potential need for relief associated with the severe accident-capable hardened containment venting capabilities required by NRC Order EA-13-109 (Reference 8). Section 6 includes a status of the open items and confirmatory items identified in the NRC's interim staff evaluation for HCGS (Reference 20).

2 Milestone Accomplishments

The following milestone(s) have been completed since the development of the HCGS FLEX OIP, and are current as of January 31, 2014.

- Submit Integrated Plan: PSEG submitted the HCGS FLEX OIP to the NRC.
- Develop FLEX Strategies: PSEG has developed HCGS FLEX strategies as described in the HCGS FLEX OIP and has identified design, analysis, procurement, and programmatic actions necessary to achieve compliance with Order EA-12-049. PSEG is evaluating changes to the HCGS FLEX strategies, as identified in Section 6, below.

3 Milestone Schedule Status

The following table provides an update to HCGS FLEX OIP milestones. The table provides the activity status of each item, and whether the original expected completion date has changed. The dates are planning dates subject to change as design and implementation details are developed. The revised milestone target completion dates do not impact the Order EA-12-049 compliance date.

Milestone	Original Target Completion Date	Activity Status	Revised Target Completion Date
Submit Overall Integrated Plan	Feb 2013	Complete	
Six-Month Status Update	Aug 2013 Feb 2014 Aug 2014 Feb 2015 Aug 2015	Complete Complete Not Started Not Started Not Started	
Develop Strategies	May 2013	Complete	
Modifications			
Develop Modifications	Apr 2014	Started	Aug 2014
Implement Modifications	Apr 2015	Not Started	May 2015
FLEX Support Guidelines (FSGs)			
Develop FSGs	Dec 2013	Started	Apr 2014
Validation Walk-throughs or Demonstrations of FLEX Strategies and Procedures (Note 1)	May 2015	Not Started	
Perform Staffing Analysis (Note 2)	Dec 2013	Not Started	Dec 2014
Develop Training Plan	Jun 2014	Started	
Implement Training	Dec 2014	Not Started	
Develop Strategies/Contract with Regional Response Center (RRC)	Oct 2013	Started	Oct 2014
Procure Equipment	Dec 2013	Started	Nov 2014
Create Maintenance Procedures	Jun 2014	Started	May 2015

Milestone	Original Target Completion Date	Activity Status	Revised Target Completion Date
Emergency Preparedness (EP) Communications Improvements (Note 3)	Jun 2014	Started	May 2015
HC Implementation Outage	Apr 2015	Not Started	May 2015
Report to NRC When Full Compliance is Achieved	Aug 2015	Not Started	

Section 3 Table Notes

1) The validation walk-through milestone is not specifically identified in the HCGS FLEX OIP milestone schedule, but is added here as a follow-up to the milestone for development of FSGs.
2) The staffing analysis milestone's revised target completion date is aligned with the FLEX staffing study required by the 10 CFR 50.54(f) information request dated March 12, 2012 (Reference 5). PSEG's staffing analyses will address simultaneous ELAP scenarios at HCGS and Salem Generating Station, Units 1 and 2.
3) The original EP communications improvement milestone is the target completion date associated with the milestone to complete installation, procedure revision, and training for satellite phone base units and antennae (Reference 7). PSEG's regulatory commitment in Reference 6 is to complete communications improvements prior to restart from HCGS Refueling Outage 19 (H1R19) in Spring 2015.

4 Changes to Compliance Method

PSEG is evaluating changes to FLEX equipment storage and deployment strategies and will include the results of the evaluation in a future six-month update.

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

PSEG is evaluating the impact of NRC Order EA-13-109 (Reference 8) on the implementation of FLEX strategies as described in the HCGS FLEX OIP (Reference 1). The HCGS FLEX strategies depend, in part, on the ability to vent primary containment using a hardened containment vent system as prescribed by NRC Order EA-12-050 (Reference 9). NRC Order EA-13-109 rescinded NRC Order EA-12-050 and imposes additional requirements on containment venting capability in order to ensure reliable venting capability during severe accident conditions. NRC Order EA-13-109 also extends the implementation milestone for hardened containment venting via the wetwell by one refueling outage, commensurate with the increase in venting system requirements. HCGS is required to comply with the wetwell venting requirements of NRC Order EA-13-109 prior to restart from HCGS Refueling Outage 20 (H1R20) in Fall 2016, whereas FLEX implementation pursuant to NRC Order EA-12-049 (Reference 2) is required prior to restart from H1R19 in Spring 2015.

PSEG is evaluating the need for relief from the requirements of NRC Order EA-12-049, in light of the revised containment venting requirements in NRC Order EA-13-109. If PSEG determines that relief from the requirements of NRC Order EA-12-049 is necessitated by the change in containment venting requirements, then PSEG will request such relief via separate correspondence.

6 Open Items from Overall Integrated Plan and Draft Safety Evaluation

The following table provides a status of HCGS resolution of NRC Generic Concerns associated with mitigation strategies, as well as Open Items (OIs) and Confirmatory Items (CIs) that are identified in the NRC's interim staff evaluation for HCGS (Reference 20):

ID	Item Ref.	Description	Status
1.	Generic Concern – Battery Life	HCGS is currently working on extending the battery duty cycle and is following the industry position on battery life as outlined in the Nuclear Energy Institute (NEI) white paper dated August 27, 2013 (Reference 10) and endorsed by NRC via letter to NEI dated September 16, 2013 (Reference 11).	In progress. PSEG expects to provide the results of battery load shedding and duty cycle evaluations by the August 2014 update.
2.	Generic Concern - MAAP	HCGS is using the Modular Accident Analysis Program (MAAP) to complete the development of FLEX timelines and strategies, consistent with the NRC endorsement letter to NEI dated October 3, 2013 (Reference 12).	In progress. PSEG expects to provide a summary of the results of the HCGS MAAP analyses by the August 2014 update.
3.	Generic Concern – Shutdown / Refueling Modes	HCGS will enhance shutdown risk processes and procedures using the supplemental guidance provided in the NEI position paper entitled "Shutdown / Refueling Modes," dated September 18, 2013 (Reference 13) and endorsed by the NRC via letter to NEI dated September 30, 2013 (Reference 14).	Not started, with completion expected to be coincident with Order EA-12-049 compliance.
4.	Generic Concern – Preventive Maintenance	As part of the development of FLEX maintenance and testing programs, HCGS will use the EPRI Technical Report entitled "Nuclear Maintenance Applications Center: Preventative Maintenance Basis for FLEX Equipment," transmitted to NRC via NEI letter dated October 3, 2013 (Reference 15) and endorsed by NRC letter dated October 7, 2013 (Reference 16).	In progress with completion expected to be coincident with Order EA-12-049 compliance.

ID	Item Ref.	Description	Status
5.	Generic Concern – Anticipatory Venting OI 3.2.3.C	With regard to maintaining containment, the implementation of Boiling Water Reactor Owners Group (BWROG) Emergency Procedure Guidelines / Severe Accident Guidelines (EPG/SAG), Revision 3, including any associated plant-specific evaluations, must be completed in accordance with the provisions of NRC letter dated January 9, 2014 (Reference 18).	In progress. PSEG is developing plant specific containment venting guidance based on Revision 3 to the BWROG EPG/SAG, as described in Reference 17 and endorsed by NRC in Reference 18.
6.	OI 3.2.4.8.E	The use of pre-staged FLEX generators appears to be an alternative to NEI 12-06. The licensee has not provided sufficient information to demonstrate that the approach meets the NEI 12-06 provisions for pre-staged portable equipment. Additional information is needed from the licensee to determine whether the proposed approach provides an equivalent level of flexibility for responding to an undefined event as would be provided through conformance with NEI 12-06.	In progress. PSEG is evaluating changes to FLEX equipment storage and deployment strategies.
7.	CI 3.1.1.1.A	Confirm licensee's evaluation of the HCGS Unit 2 structures verifies that the structures will meet the considerations described in NEI 12-06, Section 5.3.1 (protection against seismic hazards).	In progress. PSEG is evaluating changes to FLEX equipment storage and deployment strategies.
8.	CI 3.1.2.3.A	Confirm that the procedures and programs for deployment of portable equipment in a flooding event conforms to NEI 12-06, Section 6.2.3 considerations 1 (incorporation of actions necessary to support flooding deployment considerations into procedures) and 2 (additional guidance may be required to address the deployment of FLEX for flooded conditions). Additionally, procedures and programs need to address hazard concerns related to high winds, snow, ice and extreme cold and high temperatures.	In progress. PSEG is evaluating changes to FLEX equipment storage and deployment strategies.

ID	Item Ref.	Description	Status
9.	CI 3.1.3.1.A	Confirm that the licensee's separation of equipment stored outside is sufficient to preclude all sets of equipment from being damaged by a single tornado.	In progress. PSEG is evaluating changes to FLEX equipment storage and deployment strategies.
10.	CI 3.2.1.1.A	From the June 2013 position paper (endorsed by the NRC via Reference 12), benchmarks must be identified and discussed which demonstrate that MAAP4 is an appropriate code for the simulation of an ELAP event at your facility.	In progress as part of resolution of the generic concern regarding use of MAAP for containment analyses (Item 2, above).
11.	CI 3.2.1.1.B	Confirm that the collapsed vessel level in the MAAP4 analysis remains above Top of Active Fuel (TAF) and the cool down rate is within technical specification limits.	In progress as part of resolution of the generic concern regarding use of MAAP for containment analyses (Item 2, above).
12.	CI 3.2.1.1.C	Confirm that MAAP4 is used in accordance with Sections 4.1, 4.2, 4.3, 4.4, and 4.5 of the June 2013 position paper (endorsed by the NRC via Reference 12).	In progress as part of resolution of the generic concern regarding use of MAAP for containment analyses (Item 2, above).

ID	Item Ref.	Description	Status
13.	CI 3.2.1.1.D	Confirm that in using MAAP4, the licensee identifies and justifies the subset of key modeling parameters cited from Tables 4-1 through 4-6 of the "MAAP4 Application Guidance, Desktop Reference for Using MAAP4 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. Although some suggested key phenomena are identified below, other parameters considered important in the simulation of the ELAP event by the vendor / licensee should also be included as follows: Nodalization, General two-phase flow modeling, Modeling of heat transfer and losses, Choked flow, Vent line pressure losses, and Decay heat.	In progress as part of resolution of the generic concern regarding use of MAAP for containment analyses (Item 2, above).
14.	CI 3.2.1.1.E	Confirm that the specific MAAP4 analysis case that was used to validate the timing of mitigating strategies in the Integrated Plan is identified and available for NRC staff to view. Alternately, a comparable level of information may be included in the supplemental response. In either case, the analysis should include a plot of the collapsed vessel level to confirm that TAF is not reached (the elevation of the TAF should be provided) and a plot of the temperature cool down to confirm that the cool down is within technical specification limits.	In progress as part of resolution of the generic concern regarding use of MAAP for containment analyses (Item 2, above).
15.	CI 3.2.1.2.A	Insufficient information was provided relative to recirculation pump seal or other sources of leakage used in the ELAP analysis. Additional information is required to evaluate the amount of seal leakage that was used in the HCGS transient analyses and how the seal leakage was determined. This information will need to include the technical basis for the assumptions made regarding the leakage rate through the recirculation pump seals and also other sources. Also 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 discuss how mixing the leakage flow with the drywell atmosphere is modeled.	In progress as part of resolution of the generic concern regarding use of MAAP for containment analyses (Item 2, above).

ID	Item Ref.	Description	Status
16.	CI 3.2.1.3.A	The SOE Timeline in the Integrated Plan is tentative. The licensee addressed this issue during the audit process by describing that the SOE timeline presented in the Integrated Plan will be finalized based on plant-specific analysis, procedure development and timeline validation. Confirm that the final SOE timeline is acceptable.	In progress. PSEG expects to provide finalized timelines by the February 2015 update.
17.	CI 3.2.1.3.B	The licensee stated that they are performing a HCGS specific MAAP4 analysis consistent with the NRC endorsement letter to NEI dated October 3, 2013 (ADAMS Accession No. ML13275A318) (Reference 12), to validate the timeline and NEDC-33771-P applicability. Confirm that the results of the evaluation and validation of the SOE timeline are acceptable.	In progress as part of resolution of the generic concern regarding use of MAAP for containment analyses (Item 2, above).
18.	CI 3.2.1.4.A	Additional technical basis or a supporting analysis is needed for both FLEX pumping system (one engine/pump located at the SWIS and one motor/pump located in the reactor building) capabilities considering the pressure within the RPV and the loss of pressure along with details regarding the FLEX pump supply line routes, length of runs, connecting fittings, to show that the pumps are capable of injecting water into the RPV with a sufficient rate to maintain and recover core inventory for both the primary and alternate flow paths as well as supplying water [to] the SFP. The licensee addressed these issues during the audit process and stated that this analysis will be performed as part of the design change process. Confirm that the analysis results are acceptable.	In progress. PSEG expects to provide the results of HC FLEX design activities by the August 2014 update.
19.	CI 3.2.1.6.A	Confirm that the results of the final sizing calculations for the SRVs accumulators, the final temperature profile of the drywell, DC coping results and the results of the GOTHIC temperature modeling for the reactor building are acceptable.	In progress. PSEG expects to provide the results of GOTHIC modeling and analyses by the August 2014 update.

ID	Item Ref.	Description	Status
21.	CI 3.2.3.A	A site-specific analysis (MAAP) will be performed to determine the correct time to open the HCVS vent and the expected drywell and wetwell temperatures during the BDBEE. This information will be included in a future six-month update. The site-specific analysis needs to include a listing of critical drywell components that may be affected by the elevated temperatures (e.g., drywell seals and penetrations). Confirm that the analysis results are acceptable.	In progress. PSEG expects to provide the requested information by the February 2015 update.
22.	CI 3.2.3.B	The NRC staff questioned the ability of RCIC to operate with suction temperatures up to 230 degrees Fahrenheit. During the audit process, the licensee addressed this issue by stating that a RCIC durability study is in progress. Confirm that the results are acceptable.	In progress. PSEG expects to provide the requested information by the February 2015 update.
23.	CI 3.2.4.2.A	Confirm that the GOTHIC analysis and/or technical evaluation performed to demonstrate the adequacy of the ventilation provided in all plant strategic areas (including pathways for access to equipment) to support essential equipment operation throughout all phases of an ELAP is acceptable.	In progress. PSEG expects to provide the results of GOTHIC modeling and analyses by the August 2014 update.
24.	CI 3.2.4.2.B	Confirm that the effects of elevated or lowered temperatures in the battery room, especially if the ELAP is due to a high or low temperature hazard, have been considered. Confirm the adequacy of the ventilation provided in the battery room to protect the batteries from the effects of extreme high and low temperatures.	In progress. Evaluation of high temperatures depends on the results of GOTHIC modeling and analyses. PSEG expects to provide a response by the August 2014 update.
25.	CI 3.2.4.2.C	Confirm that the GOTHIC calculations for the battery rooms include the effects of hydrogen accumulation and confirm the actions necessary to prevent unacceptable hydrogen accumulation.	In progress. PSEG expects to provide the results of GOTHIC modeling and analyses by the August 2014 update.

ID	Item Ref.	Description	Status
26.	CI 3.2.4.4.A	Confirm that the upgrades to the plant communication systems discussed in the licensee communications assessment (Reference 6) in response to the March 12, 2012, 50.54(f) request for information letter for HCGS and documented in the staff analysis (ADAMS Accession No. ML13130A387) (Reference 19) have been completed.	In progress. A current status of the upgrades is provided in Note 1.
27.	CI 3.2.4.6.A	Confirm that the GOTHIC modeling and room temperature calculations of plant strategic areas (e.g. MCR, RCIC room, HPCI room (if needed), torus room, and battery rooms including pathways for access to equipment) show acceptable results for personnel habitability and equipment capability.	In progress. PSEG expects to provide the results of GOTHIC modeling and analyses by the August 2014 update.
28.	CI 3.2.4.6.B	Confirm that potential high temperature and high humidity in the SFP and fuel handling floor area has been addressed with regard to accessibility.	In progress. PSEG expects to provide the results of GOTHIC modeling and analyses by the August 2014 update.
29.	CI 3.2.4.8.A	Confirm that the design of the FLEX electrical hookups include the details on how to connect to, and interface with existing plant equipment.	In progress. PSEG expects to provide the results of HC FLEX design activities by the February 2015 update.
30.	CI 3.2.4.8.B	Confirm that the sizing of the FLEX DGs is adequate to supply the planned loads.	In progress. PSEG expects to provide the results of HC FLEX design activities by the February 2015 update.

ID	Item Ref.	Description	Status
31.	CI 3.2.4.10.A	Confirm that the analysis of battery load profiles for the safety related 125 and 250 Vdc batteries for a BDBEE demonstrate satisfactory load profiles and battery life.	In progress. PSEG expects to provide the results of battery load shedding and duty cycle evaluations by the August 2014 update.

Section 6 Table Note 1:

CI 3.2.4.4.A, Communications Improvements

PSEG's regulatory commitment in Reference 6 is to complete communications improvements prior to restart from the H1R19 outage in Spring 2015. Reference 7 identified planned communications enhancements for satellite phones, radio communications and communications vendor interfaces. A summary of the current status and schedule of these improvements is provided below:

Satellite phones – PSEG purchased ten new Iridium satellite phones, batteries and chargers, and has distributed them to PSEG Emergency Response Facilities (ERFs). A Design Change Package (DCP) is being developed to install satellite base stations and antennae. DCP issuance is targeted for May 2014, with installation prior to H1R19. The new satellite phones and associated equipment will be included in EP procedures as part of the design change process.

Radio Communications – PSEG initiated the procurement of additional batteries and chargers for existing EP radios. These batteries and chargers will be deployed to the appropriate ERFs following receipt. A DCP is being developed to ensure power is available to critical radio repeaters. DCP issuance is targeted for May 2014, with installation prior to H1R19.

Periodic Verification of EP Communication Vendor Contracts – PSEG verified EP communication vendor contracts are in place, and will ensure that vendor contracts relied upon for EP communications, including those associated with ongoing communications enhancements, are periodically verified.

7 Potential Draft Safety Evaluation Impacts

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

8 References

1. PSEG letter LR-N13-0031, "PSEG Nuclear LLC's Overall Integrated Plan for the Hope Creek Generating Station 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, 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. PSEG Letter LR-N13-0173, "PSEG Nuclear LLC's First Six-Month Status Report for the Hope Creek Generating Station 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 22, 2013
4. Nuclear Energy Institute (NEI) Report NEI 12-06, "Diverse and Flexible Coping Strategies (FLEX) Implementation Guide," Revision 0, dated August 2012
5. US Nuclear Regulatory Commission (NRC letter, "Request for Information Pursuant to Title 10 of the Code of Federal Regulations 50.54(f) Regarding Recommendations 2.1, 2.3, and 9.3, of the Near-Term Task Force Review of Insights from the Fukushima Dai-Ichi Accident," dated March 12, 2012
6. PSEG Letter LR-N12-0351, "PSEG Nuclear LLC's Assessment Report for Communications During and Extended Loss of AC Power," dated October 31, 2012 (ADAMS Accession No. ML12306A249)
7. PSEG letter LR-N13-0026, "PSEG Nuclear LLC' s Response to NRC Follow-up Letter on Technical Issues for Resolution Regarding Licensee Communication Submittals Associated with Fukushima Near-Term Task Force Recommendation 9.3," dated February 21, 2013
8. NRC Order EA-13-109, "Order Modifying Licenses with Regard to Reliable Hardened Containment Vents Capable of Operation Under Severe Accident Conditions (Effective Immediately)," dated June 6, 2013
9. NRC Order EA-12-050, "Order Modifying Licenses with Regard to Reliable Hardened Containment Vents," dated March 12, 2012
10. NEI letter to NRC, "EA-12-049 Mitigating Strategies Resolution of Extended Battery Duty Cycles Generic Concern," dated August 27, 2013 (ADAMS Accession No ML13241A186)
11. NRC letter to NEI, "Battery Life White Paper Endorsement," dated September 16, 2013 (ADAMS Accession No. ML13241A188)
12. NRC letter to NEI, "Mitigation Strategies Order EA-12-049, NEI Position Paper: MAAP Endorsement Letter," dated October 3, 2013 (ADAMS Accession No. ML13275A318)

13. NEI Position Paper, "Shutdown / Refueling Modes," dated September 18, 2013 (ADAMS Accession No. ML13273A514)

14. NRC letter to NEI, "Endorsement Letter: Mitigation Strategies Order EA-12-049, NEI Position Paper: Shutdown / Refueling Modes," dated September 30, 2013 (ADAMS Accession No. ML13267A382)

15. NEI letter to NRC, "EA-12-049 Mitigating Strategies Resolution of FLEX Equipment Maintenance and Testing Templates," dated October 3, 2013 (ADAMS Accession No. ML13276A573)

16. NRC letter to NEI, "Maintenance and Testing Endorsement Letter in Regards to Mitigation Strategies Order EA-12-049," dated October 7, 2013 (ADAMS Accession No. ML13276A224)

17. NEI letter to NRC, "EA-12-049 Mitigating Strategies Resolution with Respect to BWR Mark I and II Anticipatory Containment Venting," dated November 21, 2013 (ADAMS Accession Nos. ML13352A061 and ML13352A057)

18. NRC letter to NEI, "Nuclear Energy Institute, BWR Anticipatory Venting Letter in Regards to Order EA-12-049," dated January 9, 2014 (ADAMS Accession No. ML13358A206)

19. NRC letter to PSEG, "Hope Creek Generating Station and Salem Nuclear Generating Station, Unit Nos. 1 and 2 – Staff Assessment in Response to Request for Information Pursuant to 10 CFR 50.54(f) – Recommendation 9.3 Communications Assessment (TAC Nos. ME9959, ME9984, and ME9985)," dated June 3, 2013 (ADAMS Accession No. ML13130A387)

20. NRC Letter to PSEG, "Hope Creek Generating Station – Interim Staff Evaluation Relating to Overall Integrated Plan in Response to Order EA-12-049 (Mitigation Strategies) (TAC NO. MF0867)," dated February 11, 2014