

PSEG Nuclear LLC  
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Order EA-12-049

LR-N14-0184

**AUG 26 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 Third 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. PSEG Letter LR-N14-0025, "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)," dated February 25, 2014
5. NRC Letter to PSEG, "Hope Creek Generating Station – Relaxation of the Schedule Requirements For Order EA-12-049 'Issuance of Order to Modify Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events,'" dated May 20, 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 Condition IV.C.1.a 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). Condition IV.C.2 of NRC Order EA-12-049 requires six-month status reports to delineate the progress made in implementing the requirements of the Order. References 3 and 4 provided the first and second six-month status reports, respectively, for HCGS. Enclosure 1 to this letter provides the third six-month status report of progress made in implementing the requirements of NRC Order EA-12-049 at HCGS as of July 31, 2014.

Enclosure 1 reflects the schedule relaxation granted by the NRC in Reference 5, to allow HCGS sufficient time to implement enhanced containment wetwell (torus) venting capability in support of full compliance with NRC Order EA-12-049.

There are no regulatory commitments contained in this letter.

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If you have any questions or require additional information, please do not hesitate to contact Mr. Brian Thomas at 856-339-2022.

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

Executed on 8-26-2014  
(Date)

Sincerely,



Paul J. Davison  
Site Vice President  
Hope Creek Generating Station

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

ENCLOSURE 1

LR-N14-0184

**Hope Creek Generating Station Third 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). References 3 and 4 transmitted the first and second HCGS FLEX six-month status reports, respectively. This report is the third six-month status report, which provides implementation status as of July 31, 2014. This update follows the guidance in Section 13.2 of Nuclear Energy Institute (NEI) Report 12-06 (Reference 5), 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 schedule relaxation associated with the severe accident capable hardened containment venting capabilities required by NRC Order EA-13-109 (Reference 6).

## 2 Milestone Accomplishments

The following milestones have been completed since the development of the HCGS FLEX OIP, and are current as of July 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 and will communicate the changes in future update to the OIP.

## 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 milestones reflect implementation of NRC Order EA-12-049 requirements by the original implementation outage in Spring 2015, with the exception of torus venting changes needed to achieve full compliance by the Fall 2016 outage, consistent with the schedule relaxation approved in Reference 7.

<b>Milestone</b>	<b>Original Target Completion Date</b>	<b>Activity Status</b>	<b>Revised Target Completion Date</b>
<b>Submit Overall Integrated Plan</b>	Feb 2013	Complete	
<b>Six-Month Status Update</b>	Aug 2013 Feb 2014 Aug 2014 Feb 2015 Aug 2015 Feb 2016 Aug 2016	Complete Complete Complete Not Started Not Started Not Started Not Started	
<b>Develop Strategies</b>	May 2013	Complete	
<b>Modifications</b>			
Develop Modifications	Apr 2014	Started	Dec 2014
Implement Modifications	Apr 2015	Started	May 2015
<b>FLEX Support Guidelines (FSGs)</b>			
Develop FSGs	Dec 2013	Started	Oct 2014
Validation Walk-throughs or Demonstrations of FLEX Strategies and Procedures (Note 1)	May 2015	Not Started	
<b>Perform Staffing Analysis</b> (Note 2)	Dec 2013	Started	Dec 2014
<b>Develop Training Plan</b>	Jun 2014	Started	Nov 2014
<b>Implement Training</b>	Dec 2014	Started	May 2015
<b>Develop Strategies/Contract with Regional Response Center (RRC)</b>	Oct 2013	Started	Dec 2014
<b>Procure Equipment</b>	Dec 2013	Started	Apr 2015

<b>Milestone</b>	<b>Original Target Completion Date</b>	<b>Activity Status</b>	<b>Revised Target Completion Date</b>
<b>Create Maintenance Procedures</b>	Jun 2014	Started	May 2015
<b>Emergency Preparedness (EP) Communications Improvements</b> (Note 3)	Jun 2014	Started	May 2015
<b>HC Implementation Outage</b> (Note 4)	Apr 2015	Not Started	May 2015 Oct 2016
<b>Report to NRC When Full Compliance is Achieved</b>	Aug 2015	Not Started	Jan 2017 See Section 5

### 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 8). 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 9). PSEG's regulatory commitment in Reference 10 is to complete communications improvements prior to restart from HCGS Refueling Outage 19 (H1R19) in Spring 2015.
- 4) The May 2015 implementation outage milestone is consistent with the original NRC Order EA-12-049 implementation schedule requirements. The October 2016 milestone applies to changes to the torus venting capability based on the schedule relaxation request approved in Reference 7.

## **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 revision to the HCGS FLEX OIP.

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

By letter dated April 16, 2014 (Reference 11), PSEG requested schedule relaxation to defer HCGS full compliance with NRC Order EA-12-049, from the HCGS Refueling Outage 19 (H1R19) in Spring 2015, to H1R20 in Fall 2016. This relaxation request was approved via Reference 7 in order to allow time for implementation of torus venting requirements as needed to support compliance with NRC Order EA-12-049, and is consistent with the schedule for implementation of severe accident capable torus venting requirements in NRC Order EA-13-109.

## **6 Open Items from Overall Integrated Plan and Draft Safety Evaluation**

Resolution of items identified in the NRC's interim staff evaluation for HCGS (Reference 12) is being addressed as part of the mitigation strategies audit process.

## **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. PSEG Letter LR-N14-0025, "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)," dated February 25, 2014
5. Nuclear Energy Institute (NEI) Report NEI 12-06, "Diverse and Flexible Coping Strategies (FLEX) Implementation Guide," Revision 0, dated August 2012
6. 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



7. NRC Letter to PSEG, "Hope Creek Generating Station – Relaxation of the Schedule Requirements For Order EA-12-049 'Issuance of Order to Modify Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events,'" dated May 20, 2014
8. 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
9. 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
10. PSEG Letter LR-N12-0351, "PSEG Nuclear LLC's Assessment Report for Communications During and Extended Loss of AC Power," dated October 31, 2012
11. PSEG Letter LR-N14-0093, "PSEG Nuclear LLC's Request for Relaxation from NRC Order EA-12-049, 'Order Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events' - Hope Creek Generating Station," dated April 16, 2014
12. 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