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December 17, 2014

Serial: BSEP 14-0133

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

Subject: Brunswick Steam Electric Plant, Unit Nos. 1 and 2
Renewed Facility Operating License Nos. DPR-71 and DPR-62
Docket Nos. 50-325 and 50-324
First Six Month Status Report in Response to June 6, 2013, Commission Order
Modifying Licenses with Regard to Reliable Hardened Containment Vents
Capable of Operation Under Severe Accident Conditions (Order Number EA-13-
109)

References:

1. NRC Generic Letter 89-16, "Installation of a Hardened Wetwell Vent," dated September 1, 1989, ADAMS Accession Number ML031140220.
2. NRC Order Number EA-12-050, "Order Modifying Licenses with Regard to Reliable Hardened Containment Vents," dated March 12, 2012, ADAMS Accession Number ML12056A043.
3. 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, ADAMS Accession Number ML13130A067.
4. NRC Interim Staff Guidance JLD-ISG-2013-02, "Compliance with Order EA-13-109, Order Modifying Licenses with Regard to Reliable Hardened Containment Vents Capable of Operation under Severe Accident Conditions," dated November 14, 2013, ADAMS Accession Number ML13304B836.
5. NRC Acknowledgement of NEI 13-02 Phase 1 OIP Template, dated May 14, 2014, ADAMS Accession Number ML14128A219.
6. NEI 13-02, "Industry Guidance for Compliance with Order EA-13-109," Revision 0, Dated November 2013.
7. Duke Energy Letter, "Phase 1 Overall Integrated Plan in Response to June 6, 2013, Commission Order Modifying Licenses with Regard to Reliable Hardened Containment Vents Capable of Operation Under Severe Accident Conditions (Order Number EA-13-109)," dated June 26, 2014. ADAMS Accession Number ML14191A687.

On June 6, 2013, the Nuclear Regulatory Commission ("NRC" or "Commission") issued an order (i.e., Reference 3) to Brunswick Steam Electric Plant (BSEP), Unit Nos. 1 and 2. Reference 3 was immediately effective and directed BSEP to install a reliable hardened venting capability for pre-core damage and under severe accident conditions, including those involving a breach of the reactor vessel by molten core debris. Specific requirements are outlined in Attachment 2 of Reference 3.

A153
NRC

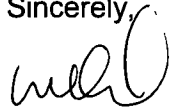
Reference 3 required submission of an Overall Integrated Plan (OIP) pursuant to Section IV, Condition D. Reference 4 endorsed industry guidance document NEI 13-02, Revision 0 (i.e., Reference 6) with clarifications and exceptions. Reference 7 provided the Brunswick Steam Electric Plant OIP.

References 3 and 6 required submission of a status report at six-month intervals following submittal of the OIP. Reference 6 also provided direction regarding the content of the status reports. The purpose of this letter is to provide the first six-month status report pursuant to Section IV, Condition D, of Reference 3, that delineates progress made in implementing the requirements of Reference 3. The enclosed report provides an update of milestone accomplishments since the submittal of the OIP, including any changes to the compliance method, schedule, or need for relief and the basis, if any.

This letter contains no regulatory commitments.

If you have any questions regarding this report, please contact Mr. Lee Grzeck, Manager – Regulatory Affairs, at (910) 457-2487.

I declare under penalty of perjury that the foregoing is true and correct. Executed on December 17, 2014.

Sincerely,


William R. Gideon

SWR/swr

Enclosure:

Six Month Status Update Report for the Implementation of Order EA-13-109, "Order Modifying Licenses with Regard to Reliable Hardened Containment Vents Capable of Operation Under Severe Accident Conditions"

cc (with enclosure):

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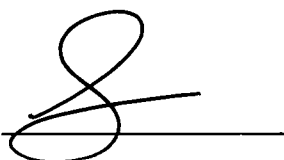
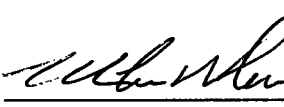
ENCLOSURE

SIX MONTH STATUS UPDATE REPORT FOR THE IMPLEMENTATION OF ORDER EA-13-109, "ORDER MODIFYING LICENSES WITH REGARD TO RELIABLE HARDENED CONTAINMENT VENTS CAPABLE OF OPERATION UNDER SEVERE ACCIDENT CONDITIONS"

BRUNSWICK STEAM ELECTRIC PLANT (BSEP), UNIT NOS.1 AND 2

DOCKET NOS.50-325 AND 50-324

RENEWED LICENSE NOS.DPR-71 AND DPR-62

	Name	Signature	Date
Preparer:	<u>Bob Ginsberg</u> Fukushima Response	 _____	<u>12/3/14</u>
Verifier:	<u>Leunis van Eeden</u> Fukushima Response	 _____	<u>12/4/14</u>
Approver:	<u>Mike Weber</u> Fukushima Response Manager	 _____	<u>12/4/14</u>

Brunswick Steam Electric Plant's Six Month Status Update Report for the Implementation of Order EA-13-109, "Order Modifying Licenses with Regard to Reliable Hardened Containment Vents Capable of Operation Under Severe Accident Conditions"

1 Introduction

Brunswick Steam Electric Plant (BSEP) developed an Overall Integrated Plan (Reference 1 in Section 8) documenting the installation of a Hardened Containment Vent System (HCVS) that provides a reliable hardened venting capability for pre-core damage and under severe accident conditions, including those involving a breach of the reactor vessel by molten core debris, in response to Reference 2. This attachment provides an update of milestone accomplishments since submittal of the Phase 1 Overall Integrated Plan including any changes to the compliance method, schedule, or need for relief/relaxation, and the basis, if any.

2 Milestone Accomplishments

The following milestone has been completed since the development of the Overall Integrated Plan (Reference 1), and is current as of December 1, 2014.

- Submit Overall Integrated Plan.

3 Milestone Schedule Status

The following provides an update to the Milestone Schedule of the Overall Integrated Plan. It provides the activity status of each item, and whether the expected completion date has changed. The dates are planning dates subject to change as design and implementation details are developed.

The revised milestone target completion dates do not impact the order implementation date.

Milestone	Target Completion Date	Activity Status	Comments (Include date changes in this column)
Hold preliminary/conceptual design meeting.	Jun. 2014	Complete.	Date not revised.
Submit Overall Integrated Plan.	Jun. 2014	Complete.	Date not revised.
Submit 6 Month Status Report.	Dec. 2014	Started.	Date not revised.
Submit 6 Month Status Report.	Jun. 2015	Not started.	Date not revised.
Storage Plan.	TBD	Not started.	Date not revised.
Staffing analysis completion.	TBD	Not started.	Date not revised.
Long term use equipment acquisition timeline.	TBD	Not started.	Date not revised.
Submit 6 Month Status Report.	Dec. 2015	Not started.	Simultaneous with Phase 2 OIP.

Brunswick Steam Electric Plant's Six Month Status Update Report for the Implementation of Order EA-13-109, "Order Modifying Licenses with Regard to Reliable Hardened Containment Vents Capable of Operation Under Severe Accident Conditions"

Milestone	Target Completion Date	Activity Status	Comments (Include date changes in this column)
Unit 2 Design Engineering On-site/Complete.	Mar. 2016	Not started.	Date not revised.
Submit 6 Month Status Report.	Jun. 2016	Not started.	Date not revised.
Operations Procedure Changes Developed.	Dec. 2016	Not started.	Date not revised.
Site Specific Maintenance Procedure Developed.	Dec. 2016	Not started.	Date not revised.
Submit 6 Month Status Report.	Dec. 2016	Not started.	Date not revised.
Training Complete.	Feb. 2017	Not started.	Outage start date moved up to February 2017.
Unit 2 Implementation Outage.	Feb. 2017	Not started.	Outage start date moved up to February 2017.
Procedure Changes Active.	Mar. 2017	Not started.	Date not revised.
Unit 2 Walk Through Demonstration/Functional Test.	Mar. 2017	Not started.	Date not revised.
Unit 1 Design Engineering On-site/Complete.	Mar. 2017	Not started.	Date not revised.
Submit 6 Month Status Report.	Jun. 2017	Not started.	Date not revised.
Submit 6 Month Status Report.	Dec. 2017	Not started.	Date not revised.
Unit 1 Implementation Outage.	Feb. 2018	Not started.	Outage start date moved up to February 2017.
Unit 1 Walk Through Demonstration/Functional Test.	Mar. 2018	Not started.	Date not revised.
Submit Completion Report.	May 2018	Not started.	Date not revised.

4 Changes to Compliance Method

There are no changes to the compliance method as documented in the Phase 1 Overall Integrated Plan (Reference 1).

Brunswick Steam Electric Plant's Six Month Status Update Report for the Implementation of Order EA-13-109, "Order Modifying Licenses with Regard to Reliable Hardened Containment Vents Capable of Operation Under Severe Accident Conditions"

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

BSEP expects to comply with the order implementation date and no relief/relaxation is required at this time.

6 Open Items from Overall Integrated Plan and Interim Staff Evaluation

The following table provides a summary of the open items documented in the Phase 1 Overall Integrated Plan or the Interim Staff Evaluation (ISE) and the status of each item.

	Overall Integrated Plan Phase 1 Open Item	Status
1	Evaluate, design, and implement missile protection as required for the HCVS piping external to the reactor building.	Evaluation started.
2	Finalize location of the Remote Operating Station (ROS).	Started.
3	Finalize and design means to address flammable gases in the HCVS.	Started.
4	Evaluate location of FLEX DG for accessibility under severe accident conditions.	Started.
5	Develop procedures for BDBEE and severe accident vent operation (load shedding, power supply transfer, and vent valve operation from the Main Control Room and ROS), vent support functions for sustained operation and portable equipment deployment (FLEX DG supply to the 24/48VDC battery system, and makeup to the nitrogen backup system). 24/48VDC	Not started.
6	Confirm suppression pool heat capacity. Initial results from GE report 0000-0165-0656-R0 for BSEP indicate the suppression pool reaches the heat capacity temperature limit (HCTL) in 2.11 hours.	Started.
7	Finalize location of supplemental N2 bottle connection.	Not started.
8	Establish programs and processes for control of HCVS equipment functionality, out-of-service time, and testing.	Not started.
9	Confirm wetwell vent capacity is sufficient at the containment design pressure (62 psig). Existing calculation 0D12-0009 calculates a wetwell vent capacity at the primary containment pressure limit (PCPL, 70 psig).	Started.

Brunswick Steam Electric Plant's Six Month Status Update Report for the Implementation of Order EA-13-109, "Order Modifying Licenses with Regard to Reliable Hardened Containment Vents Capable of Operation Under Severe Accident Conditions"

7 Interim Staff Evaluation Impacts

There are no potential impacts to the Interim Staff Evaluation identified at this time.

8 References

The following references support the updates to the Phase 1 Overall Integrated Plan described in this enclosure.

1. Duke Energy Letter, "Phase 1 Overall Integrated Plan in Response to June 6, 2013, Commission Order Modifying Licenses with Regard to Reliable Hardened Containment Vents Capable of Operation Under Severe Accident Conditions (Order Number EA-13-109)," dated June 26, 2014. ADAMS Accession Number ML14191A687
2. 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. (Accession No. ML13130A067)