



Alex L. Javorik
Columbia Generating Station
P.O. Box 968, PE04
Richland, WA 99352-0968
Ph. 509-377-8555 | F. 509-377-4150
aljavorik@energy-northwest.com

EA-13-109
10 CFR 50.54(f)

June 21, 2018
GO2-18-080

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

Subject: **COLUMBIA GENERATING STATION, DOCKET NO. 50-397
ENERGY NORTHWEST'S JUNE 2018 SIX-MONTH STATUS UPDATE
REPORT FOR THE IMPLEMENTATION OF NUCLEAR REGULATORY
COMMISSION (NRC) ORDER EA-13-109, PHASE 2 ONLY**

- References:
1. EA-13-109 from E. J. Leeds (NRC) to All Operating Boiling Water Reactor Licensees with Mark I and Mark II Containments, "Issuance of Order to Modify Licenses with Regard to Reliable Hardened Containment Vents Capable of Operation under Severe Accident Conditions," dated June 6, 2013 (ADAMS ML13143A334 (Pkg.))
 2. Letter GO2-15-175 from A. L. Javorik (Energy Northwest) to NRC, "Energy Northwest's Response to NRC Order EA-13-109 – Overall Integrated Plan for Reliable Hardened Containment Vents under Severe Accident Conditions Phases 1 and 2, Revision 1," dated December 16, 2015 (ADAMS ML15351A363)
 3. Letter GO2-17-201, from A. L. Javorik (Energy Northwest) to NRC, "Energy Northwest's Six-Month Status Update Report for the Implementation of Nuclear Regulatory Commission (NRC) Order EA-13-109, Phase 2 Only," dated December 28, 2017 (ADAMS ML18002A438)
 4. Letter GO2-17-147 from A. L. Javorik (Energy Northwest) to NRC, "Energy Northwest's Notification of Full Compliance with Order EA-12-049, 'Order Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond Design Basis External Events'", dated August 17, 2017 (ADAMS ML17229B506)

Dear Sir or Madam,

By Reference 1 the Nuclear Regulatory Commission (NRC) issued Order EA-13-109 which required licensees to develop an overall integrated plan (OIP) and submit 6-

month update reports in regards to installation and operation of a reliable hardened containment vent capable of operation under severe accident conditions. Reference 2 provided the Columbia Generating Station's revised OIP for Phase 1 of Order EA-13-109 and the initial OIP for Phase 2 of the Order. Reference 3 transmitted the previous 6-month update report for Phase 2 of NRC Order EA-13-109. Reference 4 reported the completion of activities associated with NRC Order EA-12-049 as well as Phase 1 of NRC Order EA-13-109.

The enclosure to this letter provides the required 6-month update report for the remaining Phase 2 activities and open items of Order EA-13-109 as of May 31, 2018.

No new commitments are being made by this letter or the enclosure. If you have any questions or require additional information, please contact Ms. L. L. Williams at (509) 377-8148.

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

Executed on this 21st day of June, 2018.

Respectfully,



A. L. Javorik

Vice President, Engineering

Enclosure: As stated

cc: NRC RIV Regional Administrator
NRC NRR Project Manager
NRC Senior Resident Inspector/988C

CD Sonoda – BPA/1399 (email)
WA Horin – Winston & Strawn

1.0 Introduction

By Reference 1 of this enclosure, the Nuclear Regulatory Commission (NRC) issued Order EA-13-109 to Columbia Generating Station (Columbia). The Order contained requirements for the installation of a reliable containment hardened vent capable of operation under severe accident conditions. Reference 1 also required submittal of an Overall Integrated Plan (OIP) describing how compliance with the requirements described in the Order will be achieved and required the submittal of status reports at six month intervals. This enclosure provides Energy Northwest's six-month status report for the remaining Phase 2 milestones, open items, and any changes to the compliance method or schedule.

2.0 Milestone Accomplishments

As listed below.

3.0 Milestone Schedule Status

The following table provides a listing of the remaining reports associated with NRC Order EA-13-109 as of May 31, 2018.

Correspondence and Reports

Milestone	Target Completion Date	Activity Status	Comments <i>(Include date changes in this column)</i>
6-month update for Order EA-13-109 Phase 2	Dec. 2017	Complete	GO2-17-201
6-month update for Order EA-13-109 Phase 2	June 2018	Completed	This Letter
6-month update for Order EA-13-109 Phase 2	Dec. 2018	Not Started	
6-month update for Order EA-13-109 Phase 2	June 2019	Not Started	
Issuance of Energy Northwest's letter of compliance with NRC Order EA-13-109, Phase 2	Aug. 2019	Not Started	

The following is the status of the overall integrated plan for reliable hardened containment vents (HCV) under severe accident conditions milestones as of May 31, 2018.

HCV Phase 1 Milestone Schedule:

Reported complete in letter GO2-17-147, dated August 17, 2017 – no longer reported.

HCV Phase 2 Milestone Schedule:

Milestone	Target Completion Date	Activity Status	Comments <i>(Include date changes in this column)</i>
Hold preliminary/conceptual design meeting	July 2016	Complete	This date was changed to July 2017 in letter GO2-16-171
Design Engineering On-site/Complete	July 2018		Nov. 2018
Operations Procedure Changes Developed	Jan. 2019		
Site Specific Maintenance Procedure Developed	Jan. 2019		
Training Complete	Apr. 2019		
Implementation Outage	May 2019		
Procedure Changes Active	May 2019		
Walk Through Demonstration/Functional Test	June 2019		

4.0 Changes/Updates to Overall Integrated Plan

None

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

None

6.0 Open Items from Overall Integrated Plan, Interim Staff Evaluation, and Audits

The following tables provide an update of the status of the remaining open items as of May 31, 2018.

<u>List of Overall HCV Integrated Plan Open Items</u>			
HCV OIP Open Item	Action	Status	Comment/Update
OI-HCV-10	Provide site-specific details of the EOPs when available. Develop procedures for SAWA and SAWM	OPEN	Phase 2: in review.
OI-HCV-12	SAWA/SAWM flow is controlled using hose installed valves and mechanical flow elements (EA-12-049 actions). Location of these valves and flow elements will need to be considered per HCVS-FAQ-12.	OPEN	

<u>List of Overall HCV Integrated Plan Open Items</u>			
HCV OIP Open Item	Action	Status	Comment/Update
OI-HCV-13	Reconcile the out-of-service provisions for HCVS/SAWA with the provisions documented in Columbia's PPM 1.5.18, Managing B.5.b and FLEX Equipment Unavailability.	OPEN	HCV included in PPM 1.5.18. SAWA Pending
OI-HCV-14	Complete the evaluation to determine accessibility, habitability, staffing sufficiency, and communication capability during SAWA/SAWM	OPEN	
OI-HCV-15	Perform MAPP analysis for NEI 13-02 figures C-2 through C-6 and determine the time sensitive SAWM actions	OPEN	
OI-HCV-20	Incorporate approved language of OIP Attachment 2.1.D into site SAMG procedure(s)	OPEN	

The responses to the Phase 1 request for information were completed in letter GO2-17-201.

The update to the Phase 2 requests for additional information identified in Reference 2 is provided below.

Response to the Phase 2 Request for Additional Information			
RAI Number ISE Report Section	Action	Status	Comment
1 Section 3.2.1	Licensee to determine the location of the FLEX hose installed valves and flow elements, which will be used to control SAWA/SAWM flow.	OPEN	See OI-HCV-12
2 Section 3.3.2.3	Licensee to evaluate the SAWA equipment and controls, as well as ingress and egress paths for the expected severe accident conditions (temperature, humidity, radiation) for the sustained operating period.	OPEN	
3 Section 3.3.3	Licensee to demonstrate that containment failure as a result of overpressure can be prevented without a drywell vent during severe accident conditions.	OPEN	
4 Section 3.3.3.1	Licensee shall demonstrate how the plant is bounded by the reference plant analysis that shows the SAWM strategy is successful in making it unlikely that a drywell vent is needed.	OPEN	

Response to the Phase 2 Request for Additional Information			
RAI Number ISE Report Section	Action	Status	Comment
5 Section 3.3.3.4	Licensee to demonstrate that there is adequate communication between the MCR and the operator at the FLEX pump during severe accident conditions.	OPEN	OI-HCV-14
6 Section 3.3.3.4	Licensee to demonstrate the SAWM flow instrumentation qualification for the expected environmental conditions.	OPEN	

7.0 References

1. EA-13-109 from E. J. Leeds (NRC) to All Operating Boiling Water Reactor Licensees with Mark I and Mark II Containments, "Issuance of Order to Modify Licenses with Regard to Reliable Hardened Containment Vents Capable of Operation under Severe Accident Conditions," dated June 6, 2013 (ADAMS ML13143A334 (Pkg.))
2. Letter from J. L. Quichocho (NRC) to M. E. Reddemann (Energy Northwest), "Columbia Generating Station - Interim Staff Evaluation Relating to Overall Integrated Plan in Response to Phase 2 of Order EA-13-109 (Severe Accident Capable Hardened Vents) (CAC NO. MF4383)," dated September 29, 2016 (ADAMS No. ML15266A233)