

August 20, 2015

MEMORANDUM TO: Gregory T. Bowman, Chief  
Policy and Support Branch  
Japan Lessons-Learned Division  
Office of Nuclear Reactor Regulation

FROM: Rajender Auluck, Senior Project Manager */RA/*  
Policy and Support Branch  
Japan Lessons-Learned Division  
Office of Nuclear Reactor Regulation

SUBJECT: SUMMARY OF JULY 28, 2015, MEETING TO DISCUSS  
ACTIVITIES ASSOCIATED WITH IMPLEMENTATION OF NEAR-  
TERM TASK FORCE RECOMMENDATION 5.1 RELATED TO  
CONTAINMENT VENTING SYSTEMS

On July 28, 2015, a Category 2 public meeting was held between the U. S. Nuclear Regulatory Commission (NRC) staff, representatives from the Nuclear Energy Institute (NEI), and the Boiling Water Reactor Owners Group (BWROG) (Agencywide Documents Access and Management System (ADAMS) Accession No. ML15196A041), to continue discussions on activities directed by the Commission in a staff requirements memorandum (SRM) dated March 19, 2013 (ADAMS Accession No. ML13078A017), SRM-SECY-12-0157, "Consideration of Additional Requirements for Containment Venting Systems for Boiling Water Reactors [BWRs] with Mark I and Mark II containments." These discussions were related to the NRC's Implementation of Order EA-13-109 (ADAMS Accession No. ML13130A067), which addressed Recommendation 5.1 of the Near-Term Task Force report for Enhancing Reactor Safety in the 21st Century report, issued July 12, 2011 (ADAMS Accession No. ML111861807). The focus of the meeting was on the development of a template for licensees with BWR Mark I and Mark II containments to use in preparation of their site-specific overall integrated plan to comply with the requirements for Phase 2 of the order.

The NRC staff began the meeting by summarizing the progress made since the last meeting held on July 13, 2015. The NRC staff completed its review of "HCVS [hardened containment vent system] Phase 1 and 2 Overall Integrated Plan Template," Rev. 0A1 draft provided at the July 13<sup>th</sup> meeting. The NRC staff highlighted selected areas where additional details need to be provided, including severe accident water addition (SAWA) and severe accident water management (SAWM) sections of the template. The NRC staff comments were noted in the document itself (ADAMS Accession No. ML1524A801) and publically available. The NRC staff also reviewed the draft white paper (WP) HCVS-WP-04 related to the design for tornado missiles for HCVS components 30 feet above grade and will discuss those comments later in the meeting.

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The industry presentation began with an update on the proposed changes made in the draft WP titled "Missile Evaluation for HCVS Components 30 feet Above Grade" based on the NRC staff's comments provided at the July 13<sup>th</sup> meeting. The presentation noted that the guidance in this paper only applies to portions of the piping 30 feet above the ground elevation that are not missile protected. The reference to NEI 12-06 in NEI 13-02 is for the purpose of identification and evaluation of external hazards for the HCVS and as such, the WP may be used for HCVS evaluations with respect to both the FLEX and HCVS orders (Orders EA-12-049 and EA-13-109). The presentation also clarified the types of tornado missile sources included in the evaluation to provide reasonable protection for the HCVS against the external hazard of wind-borne missiles that cause an extended loss of alternating current power (ELAP) or a loss of ultimate heart sink (LUHS). The WP concludes that based on certain assumptions, as described in the paper, the HCVS is unlikely to be damaged in a manner that prevents containment venting by a wind-generated missile from the same wind event that causes an ELAP or LUHS. The NRC staff agreed to review the WP and will provide their comments prior to the next meeting scheduled for August 25, 2015.

Next, the industry presentation discussed the overall proposed schedule of completing the Phase 2 template and the intermediate milestones. Again, the NRC staff stated that the schedule is very tight but will support to the extent possible. The industry provided additional details on the proposed frequently asked questions (FAQs) 10, 11, 12, and 13, which relate to severe accident multi-unit capability (HCVS-FAQ-10), plant severe accident response to core ex-vessel (HCVS-FAQ-11), potential limitations on operator actions based on gap release and core relocation (HCVS-FAQ-12), and verification of first 24 hour time sensitive actions (HCVS-FAQ-13). Once the drafts are finalized, the industry working group will request NRC staff review. The NRC staff agreed and will review and include as an agenda item for the next public meeting. Next, the industry presentation discussed each of the NRC staff comments on the proposed template, which were provided prior to the meeting. Several of the comments related to providing additional clarifications, but some in sections related to SAWA and SAWM needed revisions to add specific design and operational information. A pilot plant template for the Edwin I. Hatch Nuclear Plant, Units 1 and 2, was also discussed. The NRC staff agreed to review the proposed template and provide comments prior to the next public meeting.

The NRC and industry meeting handouts can be found under ADAMS Accession Nos. ML15204A801, ML15208A506, ML15208A508, ML15209A003, ML15209A005 and ML15209A006, respectively.

Members of the public attended in person, through the bridge line and via webcast. At designated points during the meeting, members of the public were invited to provide any comments on the presentations. Members of the public asked some clarifying questions. The NRC staff responded to all questions appropriately.

Enclosure:  
List of Attendees

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**ADAMS Accession No.: ML15232A072**

<b>OFFICE</b>	NRR/JLD/PSB/PM	NRR/JLD/LA	NRR/JLD/PSB/BC	NRR/JLD/PSB/PM
<b>NAME</b>	RAuluck	SLent	GBowman	RAuluck
<b>DATE</b>	08/ /2015	08/20/2015	08/20/2015	08/20/2015

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**NRC Public Meeting  
Recommendation 5.1 Related to Containment Venting System  
July 13, 2015**

**List of Attendees**

<b>Name</b>	<b>Organization</b>
Rajender Auluck	U. S. Nuclear Regulatory Commission (NRC)
Randy Bunt	Southern Nuclear Operating Company
William Reckley	NRC
Nageswara Karipineni	NRC
Sud Basu	NRC
Tim Devik	PS&E Nuclear, LLC
Robert Ginsberg	Duke Energy
Leon Refner	Certrec Corporation
Phil Amway	Exelon
Patrick Fallon	DTE Energy
Steve Kraft	Nuclear Energy Institute
Terry Farthing	GE Hitachi
Jenna Bergman	Sciencetech/Nuclear Div.
Craig Nichols	Tennessee Valley Authority

Enclosure

<b>Name</b>	<b>Organization</b>
Gregory Richardson	EPM, Inc.
Dan Jacobsen	Entergy
Bruce Heida	NRC
Brian Lee	NRC
Elijah Dickson	NRC
Hossain Esmalli	NRC
William Orders	NRC
Brett Titus	NRC
Greg Casto	NRC
Patrick Castleman	NRC
Ed Fuller	NRC
Milton Valentin	NRC

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