

December 30, 2014

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 NOVEMBER 20, 2014, MEETING TO
DISCUSS ACTIVITIES ASSOCIATED WITH
IMPLEMENTATION OF NEAR-TERM TASK FORCE
RECOMMENDATION 5.1 RELATED TO CONTAINMENT
VENTING SYSTEMS

On November 20, 2014, 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. ML14311A050), 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 (NTTF) Recommendations for Enhancing Reactor Safety in the 21st Century report, issued July 12, 2011, (ADAMS Accession No. ML111861807). The main focus of the meeting was on the proposed changes and additions to the industry guidance document NEI 13-02 (ADAMS Accession No. ML14294A789) regarding requirements for implementation of Phase 2 of the order.

The staff began their presentation by stating that the staff has reviewed, in parts, the proposed changes included in the guidance document NEI 13-02 Rev. 0D4 submitted earlier in the month and will be providing additional comments once the review has been completed. The initial staff comments are noted in the document itself (ADAMS Accession No. ML14324A030). The proposed changes relate to implementation of Phase 2 requirements specified in Order EA-13-109. The staff reiterated the order requirements in that the (i) order is for a hardened reliable containment vent, (ii) order requires vents from both wetwell and drywell, (iii) allows a reliable containment venting strategy that makes it unlikely that a licensee would need to vent from the containment drywell before alternate reliable containment heat removal and pressure control is reestablished, and (iv) preservation of wetwell vent capability is a reliable containment venting strategy until reliable containment heat removal and pressure control is reestablished.

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The industry's current proposal of preserving the wetwell vent is for 72 hours only. The document does not provide any technical justification or rationale for the selection of this time period. Further dialog is needed on this topic to have a complete understanding of the industry's proposal. The staff also noted that a new term "severe accident coping" has been introduced and needs further clarification. Additionally, in Section C.2 of Appendix C, the guidance states that generic evaluations have been performed that will serve as documented proof that containment failure, as a result of overpressure, can be prevented without a drywell vent during severe accident conditions. The staff needs further details and discussions on these generic evaluations to complete its review.

The industry presentation began with providing an overall status of Phase 2 guidance development, highlighting selected changes in the current revision, and estimated completion schedule. The goal is to submit the final draft for NRC staff review by December 10, 2014. The staff indicated that they will support the schedule, recognizing that there are still technical issues where alignment and a path forward are needed. Next, the industry working group representative described some of the proposed changes in the NEI guidance document. These included changes in Sections 5, 6, Appendices A, C, H, and I. Most of the changes in the current revision (NEI 13-02, Rev. 0D4) relate to definitions, use and operation of components in locations subject to severe accident conditions. The operator actions need to be evaluated and determined to be reasonable to be accomplished without heroic action. Typical examples include connection of hoses with quick disconnect fittings, positioning electrical disconnect switches, and positioning quick acting manual valves. The parameters which need to be considered include expected dose rate, temperatures, and the length of time needed to perform the action. Next, the presentation clarified the definition of severe accident coping, which includes actions that will place the containment in a stable state.

The three phases which are part of severe accident coping include: (i) Containment pressure control using HCVS [hardened containment venting system] vent, (ii) Containment pressure control using HCVS vent and SAWA [Severe Accident Water Addition], and (iii) Containment pressure control using the wetwell HCVS, SAWA, and SAWM [Severe Accident Water Management]. Severe accident coping will end when containment pressure control using alternate containment heat removal is established. The presentation described that the transition from severe accident coping will indicate that containment pressure control from containment vent path is no longer required as a means to prevent containment overpressure. This will also require that the alternate containment heat removal method has sufficient capacity to remove all of the heat input to the containment so that containment can be managed below Primary Containment Pressure Limit without the use of the containment vent. The presentation further noted that the transition from severe accident coping is appropriate when on-site resources are available to place equipment in service to perform the alternate containment heat removal function. The staff commented that they will review the information provided and will provide specific comments in this area, but the order requirements are very clear in that a reliable venting strategy must be capable of preserving the wetwell vent until alternate reliable heat removal and pressure control is established. Next, the industry representative briefly described the Phase 2 overall integrated plan (OIP) strategy. Any Unit using Option B1 (Section 3 of NEI 13-02) will have to submit a separate OIP with specific details. For Units using Option B2 using SAWA will utilize a combined OIP for Phase 1 and 2 compliance. There will be separate sections in the OIP for the Units using SAWA, SAWM, and/or severe accident capable drywell vent.

Towards the end of the meeting, the industry presentation provided an overview of the proposed six month update template and stated that it is similar to the templates used for Order EA-12-049 and Order EA-12-051. The draft template is included in Appendix L of the guidance document. In their response, the NRC staff provided some general comments on the material presented and stated that specific comments on the new information presented will be provided after reviewing the proposed changes. The NRC and industry meeting handouts can be found under ADAMS Accession Nos. ML14324A432 and ML14324A020, respectively. The industry guidance document, NEI 13-02, Rev. 0D4, and the NRC staff comments can also be found under ADAMS Accession Nos. ML14322A051 and ML14324A030, 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 adequately.

Enclosure:
List of Attendees

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ADAMS Accession No.: ML14363A113

OFFICE	NRR/JLD/PSB/PM	NRR/JLD/LA	NRR/JLD/PSB/BC	NRR/JLD/PSB/PM
NAME	RAuluck	SLent	GBowman	RAuluck
DATE	12/31/14	12/30/14	12/31/14	12/31/14

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**NRC Public Meeting
Recommendation 5.1 Related to Containment Venting System
November 20, 2014**

List of Attendees

Name	Organization
Rajender Auluck	U. S. Nuclear Regulatory Commission(NRC)
Randy Bunt	Southern Nuclear Operating Company
John McHale	NRC
Nageswara Karipineni	NRC
Sud Basu	NRC
Brett Titus	NRC
Steven Kraft	Nuclear Energy Institute
Robert Pettis	NRC
Robert Ginsberg	Duke
Patrick Fallon	DTE Energy
Tim Collins	NRC
Terry Farthing	GE Hitachi (GEH)
Weidong Wang	NRC
Paul Gunther	Beyond Nuclear

Enclosure

Name	Organization
Steven Dolly	PLATTS
Ron Zak	New Jersey Department of Environmental Protection
Dan Jacobsen	Entergy
Lesa Hill	Boiling-Water Reactor Owners Group /SNC
Frank Loscalzo	Tennessee Valley Authority
Jim Peschel	Certrec Corporation
Dennis Henneke	GEH
Brian Lee	NRC