

Response to Mr. Leyse's email dated October 14, 2013 regarding corrections to ML13221A011 related to basis for venting capacity in Order EA-13-102.

The NRC staff prepared "Basis for Venting Capacity in Order EA-13-109, 'Order to Modify Licenses with Regard to Reliable Hardened Containment Vents Capable of Operation Under Severe Accident Conditions'" (ML13221A011) in response to an inquiry received by the NRC in an e-mail dated July 25, 2013 from Mr. Robert H. Leyse. This document was provided to Mr. Leyse in an email dated August 9, 2013. The subject of the inquiry and related response was the design goal requirement in EA-13-109 of 1% decay heat removal capacity of the severe accident capable hardened containment vent system (HCVS) for boiling water reactors with Mark I and Mark II containments. In an e-mail dated October 14, 2013, Mr. Leyse stated the following in regards to the response provided in the subject document:

- 1) It contains an erroneous statement related to the basis for the venting capacity and, therefore, requests the staff to delete the statement from ML13221A011.
- 2) Document should include the ADAMS Accession number for a document referenced within, namely Reference 3.
- 3) The release (or ADAMS placement) date of document ML13221A011 be corrected from August 9, 2012 to August 9, 2013.
- 4) ML13221A011 should acknowledge that it was a response to an e-mail inquiry from Mr. Leyse on 7/25/2013 and that additional corrections were also made to the same document as requested by Leyse in an e-mail dated 10/14/2013.

Item 1:

The statement in ML13221A011 that Mr. Leyse views as erroneous reads

The design analysis included a vent design objective of venting approximately 1% of decay heat for a 56 psi saturated steam pressure.

The statement is part of a paragraph that provides the basis for venting capacity in Order EA-13-109, "Order to Modify Licenses with Regard to Reliable Hardened Containment Vents Capable of Operation under Severe Accident Conditions." However, the context of that sentence is that it provides a description of the basis for the vent modification at the Pilgrim Nuclear Power Station (PNPS), as contained in Enclosure 1 to Generic Letter (GL) 89-16. That enclosure contains a statement in Section 3.2.1, Objective of Design Change that reads

For 56 psi saturated steam conditions in the torus, approximately 1% decay heat can be vented.

The meaning conveyed by these statements is consistent, and therefore, the staff believes that the referenced statement in ML13221A011 is not erroneous. The PNPS and the GL 89-16 hardened vent system was not required to accommodate 1% steam flow plus a worst case hydrogen generation rate while maintaining containment pressure below its design pressure value.

For additional information, the NRC has issued the interim staff guidance (ISG) document JLD-ISG-2013-02 (ML13304B836) for the implementation of Order EA-13-109, which endorses the industry guidance in NEI 13-02 with some clarifications. The industry guidance is an attachment to the ISG. Section 4 of NEI 13-02 contains the requirements for sizing the vent, which includes considerations of suppression pool heat capacity, and simultaneous venting of steam, hydrogen, and other non-condensable gases, including auditable analysis/calculations that are required to be performed by the individual licensees in support of the vent sizing.

Items 2, 3, and 4

For Item 2, the staff agrees with Mr. Leyse that adding an ADAMS accession no. ML13017A234 to Reference 3 will be useful. For Item 2, the staff thanks Mr. Leyse for pointing out the erroneous date on page 3. The correct date should be August 9, 2013 and not August 9, 2012. Finally, the staff recognizes that the response included in ML13221A011 was prepared in an email inquiry by Mr. Robert H. Leyse, bobleyse@aol.com to OPA.Resource@nrc.gov on July 25, 2013 and this supplemental response is also prepared in response to Mr. Leyse's email dated October 14, 2013.

November 20, 2013

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