Doyle, Dan

From: Doyle, Dan
Sent: Friday, April 10, 2020 1:53 PM
To: Mark Leyse (markleyse@gmail.com)
Cc: 'Robert Leyse'; 'shadis@prexar.com'; McIntyre, David; Bladey, Cindy; Berrios, Ilka
Subject: Status of PRM-50-93 and PRM-50-95

Mr. Leyse,

I am writing to provide an update on your letters dated November 17, 2009, and June 7, 2010, in which you submitted petitions to the U.S. Nuclear Regulatory Commission (NRC). In your letter dated November 17, 2009, you requested that the NRC amend the regulations in Title 10 of the *Code of Federal Regulations* (10 CFR) Part 50 and Appendix K to Part 50 to require that the rates of energy release, hydrogen generation, and cladding oxidation from the metal-water reaction considered in emergency core cooling system evaluation calculations be based on data from multi-rod (assembly) severe fuel damage experiments. In addition, you requested that the NRC create a new regulation to establish a minimum allowable core reflood rate in the event of a loss-of-coolant accident (LOCA). In your letter dated June 7, 2010, you requested that the NRC order Vermont Yankee Nuclear Power Station (Vermont Yankee) to lower the licensing basis peak cladding temperature to 1,832 degrees F in order to provide a necessary margin of safety in the event of a LOCA.

The NRC docketed your November 17, 2009, letter as petition for rulemaking (PRM) 50-93. A notice of receipt and request for public comment on PRM-50-93 was published in the *Federal Register* on January 25, 2010 (75 FR 3876). Your letter dated June 7, 2010, was submitted as a petition for enforcement action under 10 CFR 2.206. On August 6, 2010, the NRC denied your § 2.206 petition because it did not demonstrate that Vermont Yankee was in violation of any NRC regulations. Because your § 2.206 petition asserted that there were generic inadequacies in NRC regulations, the NRC decided to review it under 10 CFR 2.802 as a petition for rulemaking and docketed it as PRM-50-95. Because PRM-50-93 and PRM-50-95 address similar issues, the NRC consolidated these two petitions for review as a single petition for rulemaking activity. Another *Federal Register* notice was published on October 27, 2010 (75 FR 66007), and the comment period was reopened. The public comment period ended on November 26, 2010. Thirty-three public comments have been received to date on the combined petitions. These comments have been posted at regulations.gov (ID: NRC-2009-0554).

The NRC staff is considering the merits of your PRM and the public comments received. As described in the NRC's letter to you dated August 25, 2011, the NRC decided to increase the visibility to the public of the NRC's review of these particular petitions. The NRC publicly released four draft interim reviews regarding issues raised in the petitions, and these draft interim reviews are posted on regulations.gov:

- Evaluation of CORA test series (8/23/11)
- Evaluation of LOFT LP-FP-2 (9/27/11)
- Evaluation of conservatism of 2200F, metal-water reaction rate correlations, and "the impression left from run 9573" (10/16/12)
- Evaluation of request to establish minimum reflood rate (3/8/13)

The NRC staff will consider and respond to the comments you made regarding PRM-50-93 and PRM-50-95 at the Commission briefing on public participation in NRC regulatory decision-making on January 31, 2013, in the review of these petitions.

The NRC is considering the remaining issues and will notify you if additional draft interim reviews are completed. Once the petitions have been resolved, a notice will be published in the *Federal Register* explaining the Commission's finding. You will also receive a letter at that time notifying you of the action that the Commission has taken.

Please feel free to contact me at Daniel.Doyle@nrc.gov or 301-415-3748 if you have questions.

Sincerely,

Dan Doyle

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