

U.S. Nuclear Regulatory Commission Public Meeting Summary

February 2, 2017

Title: Public Meeting to Discuss Draft Regulatory Guide (DG)-1327 “PWR Control Rod Ejection and BWR Control Rod Drop Accidents”

Meeting Identifier: 20170083

Date of Meeting: Wednesday, January 25, 2017

Location: Two White Flint North, Room T-9A-1

Type of Meeting: Category 2

Purpose of the Meeting:

To afford the public an opportunity to seek clarification on the content and scope of Draft Guide (DG)-1327 in support of submitting written comments before closure of the public comment period on April 21, 2017.

General Details:

The Nuclear Regulatory Commission (NRC) issued DG-1327 for a 60 day public comment period on November 21, 2016. The comment period closes February 21, 2017, but was extended to April 21, 2017, to afford additional time for comment. While the comment period is still open, the staff conducted an open public meeting at NRC Headquarters from 1:15 pm to 4:00 pm. The staff used “Go to Meeting” and a telephone bridge line to facilitate public participation for those not able to be present at NRC Headquarters. There were 6 participants at NRC and approximately 20 people participating via “Go to Meeting” or the telephone bridge line. Attached are the list of participants, the agenda, and a handout from the Nuclear Energy Institute (NEI)/Electric Power Research Institute (EPRI) which served as a basis for discussion.

Paul Clifford (NRC/NRR), the NRC technical lead for the draft guide, opened the meeting with the ground rules and announced that there would be ample opportunity for the public to comment. He was supported by Edward O’Donnell (NRC/RES) who handled meeting logistics.

Summary of Presentations:

Much of the discussion followed from slides provided by Thomas Eichenberg, Tennessee Valley Authority representing the EPRI Fuel Reliability Program, supported by Gregg Swindlehurst, G.S. Nuclear Consulting LLC. The slides focused on four areas of the draft guide: (1) methods and assumptions, (2) failure thresholds, (3) release fractions, and (4) miscellaneous. At the end of each area, people participating from outside NRC Headquarters were offered the opportunity to comment. Some of the highlights from the four areas are as follows:

Methods and assumptions –

- NEI noted that there are significant differences in analytical techniques and assumptions between Pressurized Water Reactor Control Rod Ejection (PWR CRE) and Boiling Water Reactor Control Rod Drop (BWR CRD). NEI recommended segregating this section to clarify applicability to each technology.
- NEI noted that the guidance needs to be clearer with respect to the application of uncertainties, tolerances, and sensitivity studies.
- NEI noted that the threshold for considering cladding failure based on Departure from Nucleate Boiling/Critical Power Ratios (DNB/CPR) design limits may not be appropriate.

Failure Thresholds

- NEI provided Revision 1 to EPRI Report 3002005540, “Fuel Reliability Program: Proposed Reactivity Insertion Accident (RIA) Acceptance Criteria, Revision 1.”
- This report revises the previous EPRI proposed fuel cladding failure thresholds based upon new experimental data.

Release Fractions

- NEI suggested that the RIA transient release fractions be relocated to RG 1.183 and RG 1.195.

Miscellaneous

- NEI noted that new analytical methods (e.g., fuel vendor topical reports) would need to be developed and then reviewed and approved by the NRC before the DG-1327 guidance could be implemented.

Action Items/Next Steps:

- At the close of the public comment period, the NRC staff will address the formal comments submitted by the public.
- Following analysis of the public comments but before finalization of the guide, the staff plans to hold another public meeting to explain the staff’s resolution of key comments.

Attachments:

- Meeting Agenda
- Attendee list
- NEI/EPRI slides