January 4, 2016

MEMORANDUM TO: Kevin Hsueh, Chief
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Division of Policy and Rulemaking
Office of Nuclear Reactor Regulation

FROM: Joseph J. Holonich, Senior Project Manager ***/RA/***
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SUBJECT: SUMMARY OF DECEMBER 9, 2015, MEETING WITH THE ELECTRIC POWER RESEARCH INSTITUTE ON TOPICAL REPORT FOR PRIMARY WATER STRESS CORROSION CRACKING MITIGATION BY SURFACE STRESS IMPROVEMENT (MRP-335, REVISION 2)

On December 9, 2015, U.S. Nuclear Regulatory Commission (NRC) staff met with representatives from the Electric Power Research Institute (EPRI) and industry. The purpose of the meeting was to discuss the NRC staff responses to EPRI comments on the NRC's draft safety evaluation (SE) for MRP-335, Revision 2, "Topical Report for Primary Water Stress Corrosion Cracking Mitigation by Surface Stress Improvement." Information related to the meeting can be found in the Agencywide Documents Access and Management System (ADAMS) package for the meeting at Accession No. ML15272A007.

The NRC staff opened the meeting by noting that it viewed the meeting as being in two parts. First would be a discussion of the SE comments and responses. The second part of the meeting would be a discussion of the path forward beyond the current draft SE. Of particular focus in the second part would be the EPRI plans for submitting MRP-335, Revision 3. The NRC staff stated that changes would need to be made to the draft SE as a result of the discussions on the EPRI comments and NRC staff responses.

In its opening remarks, industry reported that it had reviewed the NRC responses to the EPRI comments on the draft SE. As a result of this review and the review of the draft SE for accuracy, the industry noted that there appears to be a misunderstanding on what was proposed in MRP-335, Revision 2. Industry continued that its view was that the NRC staff evaluation of Revision 2 needed to include the probabilistic analysis methods. However, industry stated that it understood that the review of the probabilistic calculations was too extensive to be completed in time to support the issuance of a final SE by the first quarter of calendar year 2016.

The industry reported that it would be submitting MRP-335 Revision 3. This revision would clarify the contents of MRP-335 Revision 2, add additional deterministic case studies, and

amplify the basis for using probabilistic leak detection. Thus, given industry's intent to submit MRP-335, Revision 3, the industry told the NRC staff to stop its review of and SE development for MRP-335, Revision 2.

Additionally, industry explained that current inspection practices at plants are risk-informed and that there was no absolute assurance of completely eliminating leakage. Industry emphasized that the key concern is cracking initiation in safety-related components. Industry further stated that with peening and the appropriate inspection interval, the probably of leakage was very low and this was within the guidelines of risk-informed licensing actions.

Industry informed the NRC staff that plants planned to begin peening in the spring 2016 and would like regulatory certainty with respect to the NRC's evaluation of MRP-335. Industry suggested a submission date of the week of January 11, 2016, for MRP-335, Revision 3. Industry then requested that the final SE be issued by March 31, 2016.

Following the opening remarks, industry provided a presentation. A copy of the presentation can be found in the ADAMS package previously referenced. Before the presentation began, it was agreed that instead of following the original agenda for the meeting hearing the presentation would be more efficient. Thus, a detailed discussion of comments and responses was not undertaken.

During the presentation some discussion centered on the NRC staff condition including 0 kilo pounds per square inch (ksi). The NRC staff indicated that it had used 0 ksi to envelop uncertainty in stress measurement but that industry could provide additional calculations and studies to demonstrate that there was minimal change from the proposed value and 0 ksi. Industry responded that it had conducted such an analysis as shown in slide 10 of its presentation.

Another point made during the discussion was the agreement that the NRC staff review of uncertainties would be conducted during plant-specific licensing reviews. As a result of this agreement, the NRC staff emphasized that MRP-335, Revision 3 should clearly state what was to be covered in the review.

In closing the NRC staff stated that the industry desired March 2016 SE completion date was a very aggressive schedule. The NRC staff said that the sooner EPRI provided a firm date for the MRP-335, Revision 3, submission the sooner the NRC staff could provide its review schedule. Again the NRC staff emphasized that MRP-335, Revision 3, should clearly define what was to be reviewed. Finally, the NRC staff recommended EPRI formally provide a draft MRP-335, Revision 3, and that a pre-submission meeting be held to ensure a clear understanding of what was being requested.

Industry closed by restating its goal for submitting MRP-335, Revision 3 the week of January 11, 2016, with the possibility of a January 4 submission. Also, industry suggested that the NRC staff could review and use the proposed probabilistic analysis to remove Condition 5.3.1 in the current draft SE.

Closing the meeting, there was agreement on two actions:

1) Schedule a pre-submission meeting for the MRP-335, Revision 3 review.
2) As a result of the peening topical report review, the NRC Division of Engineering will schedule a meeting with industry to discuss the generic use of probabilistic failure mechanics analysis and probabilistic risk assessment.

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