



UNITED STATES
NUCLEAR REGULATORY COMMISSION
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April 24, 2018

Mr. Christian Sanna, Director
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American Society of Mechanical Engineers
Three Park Avenue
New York, NY 10016-5990

SUBJECT: FUTURE NRC CONSIDERATION OF ASME CODE CASE N-729-5 AND
ASSOCIATED SUPPLEMENTAL TECHNICAL BASIS INFORMATION

REFERENCES:

1. Letter from Ralph Hill III to Brian Thomas, "Comments Regarding Future NRC Consideration of ASME Code Case N-729-5 and N-729-6 with Regard to Re-Examination Interval for Reactor Vessel Heads Operating at Cold Leg Temperature and having Previously Detected Primary Water Stress Corrosion Cracking (PWSCC)," February 27, 2017 (ML17069A259).
2. ASME Code Case N-729-5, "Alternative Examination Requirements for PWR Reactor Vessel Upper Heads With Nozzles Having Pressure-Retaining Partial-Penetration Welds," Section XI, Division 1, American Society of Mechanical Engineers, New York, Approval Date: October 7, 2015.
3. Materials Reliability Program: Reevaluation of Technical Basis for Inspection of Alloy 600 PWR Reactor Vessel Top Head Nozzles (MRP-395). EPRI, Palo Alto, CA: 2014, 3002003099 [Freely downloadable from www.epri.com].
4. Letter from D. M. Gullot (Exelon) to U.S. Nuclear Regulatory Commission, "Requests for Relief for Alternate Examination Frequency Under ASME Code Case N-729-1 for Reactor Vessel Head Penetration Welds in accordance with 10 CFR 50.55a(a)(3)(i)," dated October 27, 2014 (ML14302A343).

Dr. Mr. Sanna:

The purpose of this letter is to inform you that the U.S. Nuclear Regulatory Commission (NRC) acknowledges receipt of the American Society of Engineers' (ASME) February 2017 letter consisting of additional technical basis information related to Code Case N-729-5 (Reference 1). The staff will consider this new basis in upcoming rulemaking activities. Consideration of Code Case N-729-5 and the identified technical basis will occur during the upcoming proposed rule incorporating by reference the 2015 and 2017 Editions of the ASME Boiler and Pressure Vessel Code. The proposed rulemaking is not expected to be published before September 2018.

In the February 27, 2017 letter (Reference 1), ASME noted that the NRC mandates periodic examinations of reactor vessel top head penetration nozzles (RPVHPNs) in accordance with 10 CFR 50.55a(g)(6)(ii)(D). This regulation requires that the interval for volumetric or surface examinations be each refueling outage in the case where flaws attributed to primary water stress corrosion cracking (PWSCC) were previously identified. ASME reinstated a reexamination interval for RPVHPNs of every other refueling outage for reactor top heads operating at cold-leg temperature and having previously-identified PWSCC in Code Case

N-729-5 (Reference 1). While the technical basis for that change to Code Case N-729 was the Electric Power Research Institute report MRP-395 (Reference 3), NRC found that MRP-395 was not sufficient basis to support a related relief request submitted by Exelon (Reference 4). In light of that staff position, ASME notified NRC of the development of additional technical basis information supporting the later revisions to Code Case N-729 in its February 27, 2017 letter (Reference 1). As stated previously, NRC will review the new technical basis information in the upcoming rulemaking.

The NRC appreciates ASME's efforts to address NRC technical concerns related to inservice inspection of safety-related nuclear components. If you have questions or concerns, please contact my staff, Michael Benson, at michael.benson@nrc.gov or 301-415-2425.

Sincerely,

/RA/

Brian E. Thomas
NRC Standards Executive
Office of Nuclear Regulatory Research

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