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July 24, 2014

Patrick Hiland
Director, Division of Engineering
Office of Nuclear Reactor Regulation
Rockville, MD

Subject: Evaluation and Acceptance of Pressure Boundary Leakage – ASME Section XI

Dear Mr. Hiland:

On behalf of the ASME Section XI Code Committees, this letter is to provide an update on the status of ASME Code activities for evaluation and acceptance of pressure boundary leakage and to announce an August 19, 2014 meeting of stakeholders and committee executives to be held during the upcoming ASME Section XI Code committee meetings in Washington, D.C.

In 2008 the Executive Committee of ASME Section XI provided a guidance document stating that requirements addressing operational leakage should be incorporated into the Code. This resulted in a letter being sent to Ms. Michele G. Evans (Director, Division of Component Integrity) from Bryan A. Erler (ASME Vice President Nuclear Codes and Standards) dated 11/26/08 that described the approach that would be taken in addressing this issue. Based on this, the Subgroups on Water-Cooled Systems and Evaluation Standards were asked to develop revisions to the Section XI Code and to revise or develop additional Code Cases as necessary to define requirements for temporary acceptance of pressure boundary leakage discovered in moderate energy piping systems. Since then, progress has been made in a number of areas for evaluation/acceptance of leakage from ASME classed pressure boundary components. The assigned joint Working Groups on Operating Plant Criteria and on Pressure Testing developed a three phased approach to addressing the topic of Code disposition of pressure boundary leakage.

Phase I of this ASME Section XI Code effort was to enhance the current ASME Code rules, and that has been completed with the approval of new Code Paragraphs and a Non-Mandatory Appendix U in April 2011. In particular: 1) Existing paragraphs were updated and new Code paragraphs were incorporated to provide evaluation and acceptance paths for visual examinations throughout the Class 1, 2, and 3 Subsections (IWB, IWC, IWD), 2) Appendix U adopted Code Case N-513-3 for temporary acceptance of leakage from flaws in moderate energy Class 2 or 3 piping, and 3) Appendix U incorporated Code Case N-705 for temporary acceptance of degradation and leakage in Class 2 or 3 vessels and tanks.

Phase II of the effort is to address the operational aspect of the topic including potential Code scope revisions as well as other Code Paragraph considerations. Several existing and a few new paragraphs have been identified for committee consideration.

Phase III of the effort is to look at potential new items, techniques, and approaches relative to dispositioning pressure boundary leakage. Two actions have recently been completed in this phase with board approval in May 2014. In particular, Class 1 through wall leakage requirements were clarified and Code Case N-513-4 was approved to expand evaluation techniques beyond straight pipe and tanks and to limit the acceptance until the next refueling outage. Work is continuing in the Section XI Working Group on Pressure Testing and the Working Group on Operating Plant Criteria to consider other enhancements.

Since this effort has been ongoing for several years and further work is still needed to meet the full objectives, a meeting of the committee executives, working groups, industry, and regulatory stakeholders is being called. The meeting will be:

Tuesday, August 19, 2014
8:30 a.m. – 11:30 a.m.
The Hyatt Regency Washington on Capitol Hill
400 New Jersey Avenue NW, Washington, DC

The objective of this meeting will be to provide the status to date of the three phases and to solicit input with the goal of confirming what, if any, of the phases warrant continued or future committee attention. We expect to have a large, diverse audience for these discussions and look forward to your participation and that of other interested NRC staff members.

Please feel free to contact me, Dan Lamond, or Tim Griesbach if you would like additional information.

Sincerely,



Ralph Hill
Vice President, ASME Codes and Standards

cc: Brian Thomas, Acting NRC Standards Executive
Wallace E. Norris, NRC Component Integrity Branch, Division of Engineering
Ryan Crane, Secretary, ASME C&S
Dan Lamond, Chairman, WGPT
Tim Griesbach, Chairman, WGOPC
Gary Park, BPV XI Chair
Ron Yonekawa, BPV XI, Vice Chair