

March 1, 2017

**Mr. Brian Thomas, Director  
Division of Engineering  
Office of Research  
Mail Stop T10-A36  
Nuclear Regulatory Commission  
Washington, DC 20555-0001**

**Subject: ASME Request for Including Specific Code Cases in Draft Revision 19 of Regulatory Guide 1.147**

- References:**
1. ASME Code Case N-661-3, Alternative Requirements for Wall Thickness Restoration of Class 2 and 3 Carbon Steel Piping for Raw Water Service, Section XI, Division 1 (Published in Supplement 6 to the 2015 Edition)
  2. ASME Code Case N-789-2, Alternative Requirements for Pad Reinforcement of Class 2 and 3 Moderate-Energy Carbon Steel Piping for Raw Water Service, Section XI, Division 1 (Published in Supplement 2 to the 2015 Edition)
  3. ASME Code Case N-831, Ultrasonic Examination in Lieu of Radiography for Welds in Ferritic Pipe, Section XI, Division 1 (Pending Publication in Supplement 0 to the 2017 Edition)
  4. ASME Code Case N-838, Flaw Tolerance Evaluation of Cast Austenitic Stainless Steel Piping, Section XI, Division 1 (Published in Supplement 2 to the 2015 Edition)
  5. ASME Code Case N-853, PWR Class 1 Primary Piping Alloy 600 Full Penetration Branch Connection Weld Metal Buildup for Material Susceptible to Primary Water Stress Corrosion Cracking, Section XI, Division 1 (Published in Supplement 6 to the 2015 Edition)
  6. ASME Code Case N-854, Alternative Pressure Testing Requirements for Class 2 and 3 Components Connected to the Class 1 Boundary Section XI, Division 1 (Published in Supplement 1 to the 2015 Edition)

Dear Sir:

As indicated in the NRC Report to the ASME Section XI Standards Committee on February 16, 2017, the NRC staff has initiated the review of the next draft regulatory guides that will address Code Cases published in Supplement 11 to the 2010 Edition through Supplement 0 of the 2015 Edition of the ASME Code. As such, draft revision 19 to Regulatory Guide 1.147 would not include the cases referenced in this letter. Because ASME believes that these cases are of significant benefit to the industry, ASME encourages the NRC to include these cases in your review of draft revision 19 to Regulatory Guide 1.147.

A brief explanation of these cases is provided below to support your consideration of our request.

1. ASME Code Case N-661-3 includes beneficial rules for joining adjacent weld overlays, and also permits weld overlays to extend onto the necks of weld neck flanges to facilitate repair of Class 2 and 3 carbon steel piping for raw water service.
2. ASME Code Case N-789-2 includes provisions for applying pad reinforcement on interior and exterior surfaces of Class 2 and 3 Moderate-Energy Carbon Steel Piping for Raw Water Service to facilitate repairs associated with corrosion on interior or exterior surfaces.
3. ASME Code Case N-831 provides an alternative to radiography when it is required by the construction code for Section XI repair/replacement activities. This case includes requirements for personnel and procedure qualification, specimen description, and requirements for demonstrating the effectiveness of the ultrasonic examination procedure.
4. ASME Code Case N-838 provides requirements for performing flaw tolerance evaluations of postulated flaws in cast austenitic stainless steel (CASS) base metal. This case also provides a recommended target flaw size for qualification of NDE methods, along with an approach which may be used to justify a larger target flaw size, if needed. Plants with CASS components must manage thermal aging effects for long term operation by performing a qualified volumetric inspection, or by performing a flaw tolerance evaluation. Currently, ASME Section XI does not have adequate NDE qualification procedures or evaluation methods for CASS material. This case will aid in the establishment of a target flaw size that could be used in flaw tolerance evaluations and NDE procedure demonstrations for CASS materials.
5. ASME Code Case N-853 provides requirements for mitigation of primary water stress corrosion cracking (PWSCC) susceptible material by installing Branch Connection Weld Metal Build-up (BCWMB) over the original Alloy 82/182 weld deposit and Alloy 600 branch remnant, and replacing the branch connection (e.g. nozzle) with PWSCC resistant Alloy 690 material and austenitic nickel alloy filler metal containing at least 26 wt % chromium.
6. ASME Code Case N-854 clarifies that Class 1 pressure testing holding time requirements may be used for specific Class 2 and 3 components connected to the Class 1 system.

ASME would like to thank the NRC for considering this request to include the above cases in draft revision 19 of Regulatory Guide 1.147. The industry will benefit from having these cases available for use at the earliest opportunity.

If you have any questions in regards to the contents of this letter, please direct them to Mr. Christian Sanna, Director, ASME Nuclear Codes & Standards by telephone (212) 591-8513 or by e-mail [SannaC@asme.org](mailto:SannaC@asme.org).

Very Truly Yours,



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cc: Members, ASME Board on Nuclear Codes and Standards  
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