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Secretary, U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001
Attn: Rulemaking and Adjudications Staff

Ms. Cindy Bladey, Chief
Rules, Announcements, and Directives Branch (RADB)
Office of Administration
Mail Stop TWB-05-B01M
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Washington, DC 20555-0001

Subject: ASME Comments on Draft Regulatory Guides DG-1230, DG -1231, DG-1232, DG-1233, and the Proposed Rule Incorporating the Final Revisions of Regulatory Guides 1.84, 1.147, and 1.192 into 10 CFR 50.55a, Docket ID NRC-2009-0359

- References:**
1. Draft Regulatory Guide DG-1230, (Proposed Revision 36 of Regulatory Guide 1.84, dated October 2010), Design, Fabrication, and Materials Code Case Acceptability, ASME Section III, June 2013 (ADAMS Accession No. ML102590003)
 2. Draft Regulatory Guide DG-1231, (Proposed Revision 17 of Regulatory Guide 1.147, dated October 2010), Inservice Inspection Code Case Acceptability, ASME Section XI, Division 1, June 2013 (ADAMS Accession No. ML102590004)
 3. Draft Regulatory Guide DG-1232, (Proposed Revision 1 to Regulatory Guide 1.192, dated June 2003), Operation and Maintenance Code Case Acceptability, ASME OM Code, June 2013 (ADAMS Accession No. ML10260001)
 4. Draft Regulatory Guide DG-1233, (Proposed Revision 4 of Regulatory Guide 1.193, dated October 2010), ASME Code Cases Not Approved For Use, June 2013, (ADAMS Accession No. ML13114A948)
 5. Draft Regulatory Guides; Request for Comment, *Federal Register*, Vol. 78, No. 121, pp. 37721-37722, Monday, June 24, 2013, 10 CFR 50, RIN 3150-A172 [NRC-2009-0359], Approval of American Society of Mechanical Engineers' Code Cases
 6. Proposed Rule, *Federal Register*, Vol. 78, No. 121, pp. 37886 -37920, Monday, June 24, 2013, 10 CFR Part 50, RIN 3150-A172,[NRC 2009-0359], Incorporation by Reference of Regulatory Guide 1.84, Revision 36, Regulatory Guide 1.147, Revision 17, and Regulatory Guide 1.192, Revision 1 Into 10 CFR 50.55a

Dear Sir or Madam:

ASME is pleased to have the opportunity to provide comments and suggestions on its

Nuclear Code Cases listed in Draft Regulatory Guides DG-1230, DG-1231, DG-1232, and DG-1233, contained in References 1 through 4, and the Proposed Rule to incorporate by reference Regulatory Guides 1.84, 1.147, and 1.192 into 10 CFR 50.55a.

Specifically, ASME supports NRC's endorsement of its Nuclear Code Cases and the NRC's continued effort in this area to complete these updates and rulemakings on a regular basis. However, ASME believes that not all of the conditions placed on the use of some of these Code Cases, along with the unacceptability status of others, is completely warranted and should be reconsidered based on the information provided in this letter.

ASME's comments on the draft regulatory guides and the proposed 10 CFR 50.55a rule are provided in Enclosures 1 through 5.

If you have any questions, please contact me or direct them to Mr. Kevin Ennis, ASME Director, Nuclear Codes and Standards by telephone at (212) 591-7075 or by e-mail (ennisk@asme.org) and thank you for consideration of our comments.

Very Truly Yours,



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Enclosures:

1. ASME Comments on Draft Regulatory Guide DG-1230
2. ASME Comments on Draft Regulatory Guide DG-1231
3. ASME Comments on Draft Regulatory Guide DG-1232
4. ASME Comments on Draft Regulatory Guide DG-1233
5. ASME Comments on Proposed 10 CFR 50.55a Rule

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ASME Board on Nuclear Codes and Standards Members
ASME Standards Committee on Nuclear Inservice Inspection
ASME Standards Committee on Construction of Nuclear Facility Components
ASME Standards Committee on Operation and Maintenance of Nuclear Power Plants

Enclosure 1

ASME Comments on Draft Regulatory Guide DG-1230
(Proposed Revision 36 of Regulatory Guide 1.84, *Design, Fabrication, and Materials Code Case Acceptability, ASME Section III*)

1. **Code Case N-60-5**, "*Material for Core Support Structures, Section III, Division , Class 1*"

ASME Comment – Text in the proposed condition should be corrected to change “stain-hardened” to “strain-hardened”.

Enclosure 2

ASME Comments on Draft Regulatory Guide DG-1231 (Proposed Revision 17 of Regulatory Guide 1.147, *Inservice Inspection Code Case Acceptability, ASME Section XI, Division 1*)

1. **Code Case N-416-4**, *“Alternative Pressure Test Requirement for Welded or Brazed Repairs, Fabrication Welds or Brazed Joints for Replacement Parts and Piping Subassemblies, or Installation of Replacement Items by Welding or Brazing, Classes 1, 2, and 3, Section XI, Division 1”*

NRC Condition (Existing) – Nondestructive examination shall be performed on welded or brazed repairs and fabrication and installation joints in accordance with the methods and acceptance criteria of the applicable subsection of the 1992 Edition of Section III.

ASME Comment – ASME believes that the current condition imposed on the use of this case is not necessary and that N-416-4 should be listed in Table 1 of Regulatory Guide 1.147 for reasons cited below.

- a. The condition imposed on Code Case N-416-4 in RG 1.147, Table 2 is similar to the following condition on the pressure testing requirements of IWA-4540(a) [see 10 CFR 50.55a(b)(2)(xx)(B)].

“(B) The NDE provision in IWA-4540(a)(2) of the 2002 Addenda of Section XI must be applied when performing system leakage tests after repair and replacement activities performed by welding or brazing on a pressure retaining boundary using the 2003 Addenda through the latest edition and addenda incorporated by reference in paragraph (b)(2) of this section.”

Note: ASME intends to provide comments to the NRC concerning the condition imposed by 10 CFR 50.55a(b)(2)(xx)(B) in a separate letter for consideration in the next draft 10 CFR 50.55a rule to incorporate by reference later editions and addenda of ASME Code, Section XI.

- b. In the 2003 Addenda, ASME Section XI, IWA-4540(a) was revised to read as follows, in part, because the requirements of IWA-4540(a)(2) sometimes exceed those of the Construction Code of the affected component, and therefore the original construction and operating permit requirements. These additional requirements had imposed an unnecessary burden on the licensee and were not necessary to ensure safe operation.

“(a) Unless exempted by IWA-4540(b), repair/replacement activities performed by welding or brazing on a pressure-retaining boundary shall include a hydrostatic or system leakage test in accordance with IWA-5000, prior to, or as part of, returning to service. Only brazed joints and welds made in the course of a repair replacement activity require pressurization and VT-2 visual examination during the test.”

- c. In the Federal Register, Vol. 73, No. 176, Pgs. 52731-52746, Wednesday, September 10, 2008, the NRC expressed a concern on page 52732 regarding “vintage plants” constructed using ASME B31.1. The NRC Staff concern was directed toward those components within the ASME Section XI, Class 2 and 3 boundaries that were not subject to volumetric examination during original construction, and, as a result, would not be subject to volumetric examination following repair/replacement activities. The NRC stated that “A system pressure test or hydrostatic pressure test does not verify the structural integrity of the repaired piping components.”

Enclosure 2

ASME Comments on Draft Regulatory Guide DG-1231 (Proposed Revision 17 of Regulatory Guide 1.147, *Inservice Inspection Code Case Acceptability, ASME Section XI, Division 1*)

This NRC position implies that existing ASME Section XI, Class 2 and 3 components that were not subject to volumetric examination during original construction are now unsuitable for continued operation, in part because the original hydrostatic test is insufficient to verify structural integrity. This supposition includes those components constructed to ASME III, as well as those constructed to "vintage codes." However, the NRC condition on use of IWA-4540(a) permits use of a similar (or lower pressure) hydrostatic test without any additional NDE beyond that required during the original plant construction.

This conclusion is also supported by the NRC's response to a 19 June 2007 public comment by Duke Energy regarding the necessity of a backfit analysis due to the retroactive ruling on IWA-4540(a), as related to certain licensees that had been approved to use the 2003 Addenda of ASME Section XI, prior to implementation of the above-referenced final rule. In the NRC's response to the commenter, the NRC agreed that there would be some degree of backfit to adjust to the new rulemaking; however, the NRC states that the additional examination is "paramount to public safety and is therefore exempt from a backfit analysis."

However, by not imposing volumetric examination on all existing ASME Section XI, Class 2 and 3 components not subjected to repair/replacement activities, the NRC must believe that such examinations are unnecessary for ensuring safe operation of those components.

The ASME has an entirely different opinion. The ASME Boiler and Pressure Vessel Code has long relied on a specified relationship between nondestructive examination and allowable stresses. Vintage codes, such as ANSI B31.1, have lower allowable stresses, due to the fact nondestructive examination is generally not required. Whereas nuclear codes (ASME Section III and B31.7) have higher allowable stress intensities for Class 1 components relative to Class 2 and 3 components, due mostly to the additional examinations required for Class 1 construction. This methodology is similar to that in ASME Section VIII, which applies a graded method to allow the manufacturer to increase the allowable stress (SE product in the denominator of the thickness equation) by virtue of additional examinations. Thus, additional NDE can result in decreased material thickness.

ASME has never established any relationship between the test pressure to which a component is subjected and any other material or design characteristic. In fact the test pressures specified in ASME B31.1 and all sections of the ASME Boiler and Pressure Vessel Code are arbitrary. The primary technical consideration in development of the required test pressure is to ensure that it is low enough to prevent yielding of the material. ASME agrees that hydrostatic testing does not prove structural integrity; it proves only leak tightness. Similarly, NDE alone does not ensure structural integrity. ASME ensures structural integrity through a combination of many factors, including material testing, design formulas, design factors, and qualification of personnel. Adding more NDE than required by the Construction Code (be it ASME Section III or B31.1) is not required to ensure structural integrity.

Enclosure 2

ASME Comments on Draft Regulatory Guide DG-1231 (Proposed Revision 17 of Regulatory Guide 1.147, *Inservice Inspection Code Case Acceptability, ASME Section XI, Division 1*)

In conclusion, the ASME has determined that the additional nondestructive examination requirements imposed by the NRC when using Code Case N-416-4 is burdensome and unnecessary, and implies that existing components are unsuitable. ASME therefore requests that the NRC Staff remove the referenced condition on the use of Code Case N-416-4 and list this case in Table 1 of Regulatory Guide 1.147.

2. **Code Case N-561-2**, *"Alternative Requirements for Wall Thickness Restoration of Class 2 and High Energy Class 3 Carbon Steel Piping Section XI, Division 1"*

NRC Proposed Conditions –

- (1) Paragraph 5(b): for repairs performed on a wet surface, the overlay is only acceptable until the next refueling outage.
- (2) Paragraph 6(c)(1): this exemption is not permitted.
- (3) Paragraph 7(c): if the cause of the degradation has not been determined, the repair is only acceptable until the next refueling outage.
- (4) The area where the weld overlay is to be applied must be examined using ultrasonic methods to demonstrate that no crack-like defects exist.
- (5) Paragraph 4(b): All systems must be depressurized before welding.

ASME Comments –

- a. Proposed Conditions (1) and (3) limit the life of the repair "until the next refueling outage" for repairs performed on a wet surface or if the cause of the degradation has not been determined. The Code Case already limits the life of the repair to "one fuel cycle" for these same situations. The ASME Committee considered both phrases when revising this Code Case to add these restrictions, and intentionally chose "one fuel cycle" instead of "next refueling outage" so as not to imply that such weld overlays could not be performed while a plant is shut down for a refueling outage. In such a Case, literal application of "next refueling outage" could mean the current refueling outage, which could be an extreme hardship, depending on the timing of the discovery of the need for a weld overlay. Use of the term "one fuel cycle" clearly requires that the overlay be removed no later than the same point in the cycle that it was applied, during the subsequent fuel cycle. In the vast majority of cases, this will happen at the next refueling outage; otherwise, a special outage or a special limiting condition of operation would be required mid-cycle in order to effect its removal. Therefore, ASME recommends eliminating proposed conditions (1) and (3).
- b. Proposed Condition (2) prohibits the use of the exemption listed in paragraph 6(c)(1) of this case. The provisions in paragraph 6(c)(1) are identical to existing, approved provisions of IWA-4520, Examination, in the 2001 Edition of ASME Section XI:

 "(a) Welding or brazing areas and welded joints made for fabrication or installation of items by a Repair/ Replacement Organization shall be examined in accordance with the Construction Code identified in the Repair/ Replacement Plan, with the following exceptions:

Enclosure 2

ASME Comments on Draft Regulatory Guide DG-1231 (Proposed Revision 17 of Regulatory Guide 1.147, *Inservice Inspection Code Case Acceptability, ASME Section XI, Division 1*)

(1) Base metal repairs on Class 3 items are not required to be volumetrically examined when the Construction Code does not require that full-penetration butt welds in the same location be volumetrically examined.”

Weld overlays are base metal repairs, and are therefore already exempt by Section XI IWA-4520 (2001 and later editions and addenda). This exemption was only included in revision 2 of Code Cases N-561 and N-562; and also in Revision 1 of Code Case N-661-2 which was approved by Regulatory Guide 1.147 Rev. 16 without this condition, in order to enable plants not yet implementing the 2001 or later edition and addenda to apply the exemption which had been accepted by the NRC in 10 CFR 50.55a.

Paragraph 6(a) of the case requires a surface examination of the completed weld overlay to provide additional assurance of the quality of the repair weld. ASME believes that this requirement is sufficient for Class 3 applications in locations where the Construction Code would not require volumetric examination of full penetration butt welds in that location. Further, with the added condition of ultrasonically examining the base metal to verify absence of cracking, the benefit of /need for volumetric examination is significantly reduced. Therefore, ASME recommends eliminating proposed condition (2).

- c. ASME believes that the proposed condition (5) is unwarranted and should be removed or modified as recommended below.

The rationale for this condition contained in the draft 10 CFR 50.55a ruling is to reduce the chances of producing a suspect weld – i.e. one made on a wet surface.

Footnote 6 in Code Cases N-561-2 and N-661-2 (and footnote 5 in N-562-2) states: “Testing has shown that piping with areas of wall thickness less than the diameter of the electrode may burn-through during application of a water-backed weld overlay.”

Testing performed by EPRI demonstrated that this criteria applies to application of weld overlays under both pressurized (up to 500 psi during the testing) and non-pressurized conditions (during this testing, specimens that burned-through were successfully welded-up using the SMAW process with water leaking from the pipe; and those specimens passed the subsequent burst testing at pressures beyond the minimum burst pressure of new pipe.). The results were the same in both situations – if the electrode diameter exceeded the thickness being welded, burn-through was likely – irrespective of internal pressure. If the thickness of the base metal equaled the thickness of the electrode, burn through would not occur, regardless of internal pressure. To require depressurization in such cases – in order to reduce the chances of producing a suspect weld - would cause extreme hardships, with no technical justification.

Note: Code Cases N-561-1, N-562-1 and N-661-1 each contained the statement: “4(b) Piping with wall thickness less than the diameter of the electrode shall be depressurized before welding.” This was changed to a footnote for editorial purposes in revision 2 of each Code case.

If the NRC believes that Condition (5) must be retained in Table 2 of Regulatory

Enclosure 2

ASME Comments on Draft Regulatory Guide DG-1231 (Proposed Revision 17 of Regulatory Guide 1.147, *Inservice Inspection Code Case Acceptability, ASME Section XI, Division 1*)

Guide 1.147, ASME recommends that this condition be revised to read "Piping with wall thickness less than the diameter of the electrode shall be depressurized before welding." This wording is consistent with that specified in paragraph 4(b) of Code Case N-661-1, which is currently listed in Table 2 of Regulatory Guide 1.147.

3. **Code Case N-562-2**, *"Alternative Requirements for Wall Thickness Restoration of Class 3 Moderate Energy Carbon Steel Piping, Section XI, Division 1"*

NRC Proposed Conditions –

- (1) Paragraph 5(b): for repairs performed on a wet surface, the overlay is only acceptable until the next refueling outage.
- (2) Paragraph 6(c)(1): this exemption is not permitted.
- (3) Paragraph 7(c): if the cause of the degradation has not been determined, the repair is only acceptable until the next refueling outage.
- (4) The area where the weld overlay is to be applied must be examined using ultrasonic methods to demonstrate that no crack-like defects exist.
- (5) All systems must be depressurized before welding

ASME Comments –

ASME believes that the proposed conditions (1), (2), (3), and (5) are unwarranted for reasons listed in comments provided on Code Case N-561-2.

If the NRC believes that Condition (5) must be retained in Table 2 of Regulatory Guide 1.147, ASME recommends that this condition be revised to read "Piping with wall thickness less than the diameter of the electrode shall be depressurized before welding." This wording is consistent with that specified in paragraph 4(b) of Code Case N-661-1, which is currently listed in Table 2 of Regulatory Guide 1.147.

4. **Code Case N-597-2**, *"Requirements for Analytical Evaluation of Pipe Wall Thinning, Section XI, Division 1"*

NRC Proposed Conditions –

New condition (6) has been proposed, as follows:

"(6) For moderate-energy Class 2 and 3 piping, wall thinning acceptance criteria may be determined on a temporary basis (until the next refueling outage) based on the provisions of Code Case N-513-2. Moderate-energy piping is defined as Class 2 and 3 piping whose maximum operating temperature does not exceed 200 °F (93 °C) and whose maximum operating pressure does not exceed 275 psig (1.9MPa). Code Case N-597-2 shall not be used to evaluate through-wall leakage conditions."

ASME Comments –

- (1) It is unclear whether this proposed condition prohibits the use of Code Case N-597-2 for moderate-energy Class 2 and 3 piping. If the intent of this condition is to allow the use of this case only until the next refueling outage for moderate-energy Class 2

Enclosure 2

ASME Comments on Draft Regulatory Guide DG-1231 (Proposed Revision 17 of Regulatory Guide 1.147, *Inservice Inspection Code Case Acceptability, ASME Section XI, Division 1*)

and 3 piping, this condition should be clarified.

- (2) Reference to Code Case N-513-2 should be removed from the proposed condition since Code Case N-513-3 is listed in Table 2 of Regulatory Guide 1.147. Because the condition imposed on the use of Code Case N-513-3 already restricts the use of N-513-3 until a repair/replacement activity can be performed during the next refueling outage, the proposed condition is not needed for Code Case N-597-2.

ASME recommends removing the proposed condition (6) or revising the condition to address the above concerns.

5. **Code Case N-606-1**, *"Similar and Dissimilar Metal Welding Using Ambient Temperature Machine GTAW Temper Bead Technique for BWR CRD Housing/Stub Tube Repairs, Section XI, Division 1"*

ASME Comments –

Section XI Case N-606-1 provides alternative rules for "Similar and Dissimilar Metal Welding Using Ambient Temperature Machine GTAW Temper Bead Technique for BWR CRD Housing/Stub Tube Repairs". In Reg. Guide 1.147 Rev. 15, Table 2 on Conditionally Acceptable Section XI Code Cases, the NRC invoked the following Condition:

"Prior to welding, an examination or verification must be performed to ensure proper preparation of the base metal, and that the surface is properly contoured so that an acceptable weld can be produced. The surfaces to be welded, and surfaces adjacent to the weld, are to be free from contaminants, such as, rust, moisture, grease, and other foreign material or any other condition that would prevent proper welding and adversely affect the quality or strength of the weld. This verification is to be required in the welding procedures."

The surface preparation and cleaning prior to welding are considered to be standard requirements by Welding Programs complying with 10 CFR 50.55a specified Codes and 10 CFR 50, Appendix B Quality Assurance Programs. Furthermore, these requirements are already required/implied by the reference to ASME Section IX and paragraph 3(e) of the Case. Many other instances where welding is performed, even temper bead welding, can be found in Code Cases and in Code that do not explicitly specify this level of detail since such details are included in the Owner's or the Owner's Repair Organization's Welding Procedure Specification/Welding Program.

In summary, the ASME Section XI Standards Committee does not perceive that the stated requirements are a limitation but that these requirements are already inherently required and, therefore, we request that the NRC remove this condition from the Regulatory Guide.

Enclosure 2

ASME Comments on Draft Regulatory Guide DG-1231
(Proposed Revision 17 of Regulatory Guide 1.147, *Inservice Inspection Code Case Acceptability, ASME Section XI, Division 1*)

6. **Code Case N-619** *“Alternative Requirements for Nozzle Inner Radius Inspections for Class 1 Pressurizer and Steam Generator Nozzles, Section XI, Division 1”* and **N-648-1** *“Alternative Requirements for Inner Radius Examination of Class 1 Reactor Vessel Nozzles, Section XI, Division 1”*

NRC Proposed Conditions –

In lieu of a UT examination, licensees may perform a visual examination with enhanced magnification that has a resolution sensitivity to detect a 1-mil width wire or crack, utilizing the allowable flaw length criteria of Table IWB-3512-1 with limiting assumptions on the flaw aspect ratio.

ASME Comments –

In the discussion providing the background for the limitation, the NRC has recognized that the use of the characters for visual examination is a better resolution standard than the wire standard. The NRC also indicated that the research that supported the use of characters in lieu of a wire standard also showed that other changes should be considered to visual testing as related to the above mentioned two code cases. It is unclear to ASME why the NRC would not want to revise the conditions to allow the use of characters for the resolution standard. ASME is constantly trying to improve on the existing NDE methods and believes that implementation of improvements that are identified should be made as they are approved through the consensus process and not wait until other improvement are identified. ASME requests that the condition for Code Case N-619 be revised to indicate a VT-1 examination be performed in accordance with the code of record for the Inservice Inspection Program and the condition for Code Case N-648-1 that specifies the visual resolution sensitivity be removed as the code case already requires a VT-1 in accordance with the code of record for the Inservice Inspection Program. These suggested changes will improve the resolution of visual examinations, thus improving the capability of the technique in detecting indications for which the examinations are performed.

ASME also notes that the NRC has proposed adding Code Case N-702 to RG 1.147 without imposing a similar condition to use a 1-mil wire for VT-1 procedure demonstration. ASME believes that all three cases (N-619, N-648-1, and N-702) should be made available for use without imposing this condition.

7. **Code Case N-661-2**, *“Alternative Requirements for Wall Thickness Restoration of Classes 2 and 3 Carbon Steel Piping for Raw Water Service, Section XI, Division 1”*

NRC Proposed Conditions –

- (1) Paragraph 4(b): for repairs performed on a wet surface, the overlay is only acceptable until the next refueling outage.
- (2) Paragraph 6(c)(1): this exemption is not permitted.
- (3) Paragraph 7(c): if the cause of the degradation has not been determined, the repair is only acceptable until the next refueling outage.
- (4) The area where the weld overlay is to be applied must be examined using ultrasonic methods to demonstrate that no crack-like defects exist.

Enclosure 2

ASME Comments on Draft Regulatory Guide DG-1231
(Proposed Revision 17 of Regulatory Guide 1.147, *Inservice Inspection Code Case Acceptability, ASME Section XI, Division 1*)

- (5) All systems must be depressurized before welding.

ASME Comments –

ASME believes that the proposed conditions (1), (2), (3), and (5) are unwarranted for reasons listed in comments provided on Code Case N-561-2.

If the NRC believes that Condition (5) must be retained in Table 2 of Regulatory Guide 1.147, ASME recommends that this condition be revised to read “Piping with wall thickness less than the diameter of the electrode shall be depressurized before welding.” This wording is consistent with that specified in paragraph 4(b) of Code Case N-661-1, which is currently listed in Table 2 of Regulatory Guide 1.147.

8. **Code Case N-702**, *“Alternative Requirements for Boiling Water Reactor (BWR) Nozzle Inner Radius and Nozzle-to-Shell Welds, Section XI, Division 1”*

NRC Proposed Condition –

The technical basis supporting the implementation of this Code Case is addressed by BWRVIP-108: BWR Vessel and Internals Project, “Technical Basis for the Reduction of Inspection Requirements for the Boiling Water Reactor Nozzle-to-Vessel Shell Welds and Nozzle Blend Radii,” EPRI Technical Report 1003557, October 2002 (ML-023330203). The applicability of Code Case N-702 must be shown by demonstrating that the criteria in Section 5.0 of NRC Safety Evaluation regarding BWRVIP-108 dated December 18, 2007 (ML073600374) are met. The evaluation demonstrating the applicability of the Code Case shall be reviewed and approved by the NRC prior to the application of the Code Case.

ASME Comments –

ASME is pleased that the NRC is proposing to add Code Case N-702 to Table 2 of R.G. 1.147. However, ASME recommends that this condition be modified to address BWRVIP-241: BWR Vessel and Internals Project, “Probabilistic Fracture Mechanics Evaluation for the Boiling Water Reactor Nozzle-to-Vessel Shell Welds and Nozzle Blend Radii,” EPRI Technical Report 1021005, October 2010 (ML11119A041).

Specifically, ASME recommends that the proposed condition be revised as follows:

The technical basis supporting the implementation of this Code Case is addressed by BWRVIP-108: BWR Vessel and Internals Project, “Technical Basis for the Reduction of Inspection Requirements for the Boiling Water Reactor Nozzle-to-Vessel Shell Welds and Nozzle Blend Radii,” EPRI Technical Report 1003557, October 2002 (ML-023330203) and BWRVIP-241: BWR Vessel and Internals Project, “Probabilistic Fracture Mechanics Evaluation for the Boiling Water Reactor Nozzle-to-Vessel Shell Welds and Nozzle Blend Radii,” EPRI Technical Report 1021005, October 2010 (ML11119A041). The applicability of Code Case N-702 must be shown by demonstrating that the criteria in Section 5.0 of NRC Safety Evaluation regarding BWRVIP-108 dated December 18, 2007 (ML073600374) or Section 5.0 of NRC Safety Evaluation regarding BWRVIP-241 dated April 19, 2013 (ML13071A240) are met. The evaluation demonstrating the applicability of the Code Case shall be reviewed and approved by the NRC prior to the application of the Code Case.

Enclosure 2

ASME Comments on Draft Regulatory Guide DG-1231
(Proposed Revision 17 of Regulatory Guide 1.147, *Inservice Inspection Code Case Acceptability, ASME Section XI, Division 1*)

9. **Code Case N-739-1**, *“Alternative Qualification Requirements for Personnel Performing Class CC Concrete and Post-Tensioning System Visual Examinations, Section XI, Division 1”*

NRC Proposed Condition – The ACI reference should be ACI 201.1

ASME Comment – This condition should be clarified to reference ACI 201.1R. Note that ASME has taken action to issue an errata to correct this error in the Code Case and Section XI. The reference to ACI 201.1R is correctly shown in Table IWA-1600-1.

10. **Code Case N-798**, *“Alternative Pressure Testing Requirements for Class 1 Piping Between the First and Second Vent, Drain, and Test Isolation Devices Section XI, Division 1”*, and **Code Case N-800**, *“Alternative Pressure Testing Requirements for Class 1 Piping Between the First and Second Injection Valves Section XI, Division 1”*

ASME Comment – Although these cases have not been included in DG-1231, ASME strongly recommends that the NRC include both of these cases in the next draft revision to Regulatory Guide 1.147. Until such time that N-798 and N-800 are included in RG 1.147, ASME believes that Owners will continue to seek relief pursuant to 10 CFR 50.55a(a)(3) [10 CFR 50.55a(z) in the draft rule] to use provisions of these cases or similar alternatives.

Enclosure 3

ASME Comments on Draft Regulatory Guide DG-1232
(Proposed Revision 1 of Regulatory Guide 1.192, *Operation and Maintenance Code Case
Acceptability, ASME OM Code*)

ASME does not have any comments related to DG-1232.

Enclosure 4

ASME Comments on Draft Regulatory Guide DG-1233
(Proposed Revision 4 of Regulatory Guide 1.193, *ASME Code Cases Not Approved For Use*)

1. **Code Case N-659-2**, *"Use of Ultrasonic Examination in Lieu of Radiography for Weld Examination, Section III, Divisions 1 and 3"*

ASME Comment –

The title of this case in DG-1233, Table 1 (page 7) should be corrected to replace the word "Radiology" with "Radiography".

Enclosure 5

ASME Comments on Proposed 10 CFR 50.55a Rule

ASME offers the following comments pertaining to proposed changes to 10 CFR 50.55a:

1. ASME is pleased that the NRC has proposed amending 10 CFR 50.55a to address the petition for rulemaking, PRM-50-89, submitted by Mr. Raymond West. Specifically, the proposed changes in 10 CFR 50.55a(z) to allow NRC authorization of alternatives to NRC-approved ASME BPV and OM Code Cases will reduce the administrative burden on licensees who wish to use alternatives to these cases (or alternatives to conditions imposed on the use of these cases through Regulatory Guides 1.147, 1.84, and 1.192).
2. ASME commends the NRC for making changes to 10 CFR 50.55a to conform with Federal Register guidelines on incorporation by reference without creating an excessive administrative burden on licensees. While the proposed renumbering of existing paragraphs, and addition of new paragraphs, will cause some increased administrative burden on licensee's programs, the proposed changes have been crafted in such a way as to minimize the impact of these changes.
3. Lastly, ASME believes that the proposal to add paragraph headings throughout 10 CFR 50.55a will greatly improve the readability of the regulations and is a significant improvement. ASME suggests that the NRC continue to improve the readability of 10 CFR 50.55a by reformatting and renumbering of the contents within the regulation. ASME understands that the U.S. Office of the Federal Register requirements may restrict further changes to the formatting and renumbering of paragraphs within 10 CFR 50.55a. For this reason, ASME encourages the NRC to consider alternative methods for endorsing ASME Codes and standards, such as moving many of the requirements currently specified in 10 CFR 50.55a into a suitable Regulatory Guide that can be referenced within the regulation. Specifying many of these requirements within a Regulatory Guide may permit greater flexibility in formatting and numbering the requirements and conditions imposed on ASME Codes.