

From: Kalyanam, Kaly
Sent: Wednesday, January 06, 2010 9:44 AM
To: POLLOCK, JIM
Cc: MURILLO, ROBERT J
Subject: Additional RAI on Waterford 3 Relief Requests WF3-ISI-07, 008, 009, 010, 011, 012, 013, and 014

Jim,

By letter dated June 1, 2009, Entergy Operations, Inc. (Entergy, the licensee), submitted its second 10-year inservice inspection interval Requests for Relief WF3-ISI-007, WF3-ISI-008, WF3-ISI-009, WF3-ISI-010, WF3-ISI-011, WF3-ISI-012, WF3-ISI-013, and WF3-ISI-014 from the requirements of the American Society of Mechanical Engineers Boiler and Pressure Vessel Code, Section XI, for Waterford Steam Electric Station, Unit 3.

We have reviewed the application and determined that additional information contained in the enclosure is needed to complete the review. The U.S. Nuclear Regulatory Commission staff discussed the need for additional information on December 17, 2009, with Mr. William Steelman and others of your staff and subsequently with Mr. Jim Pollock on January 6, 2010. Mr. Pollock agreed to provide a response by February 10, 2010.

Thanks

Kaly

1.0 REQUEST FOR ADDITIONAL INFORMATION

1.1 Requests for Relief WF3-ISI-007 through WF3-ISI-014, Examination Categories B-A, B-D, B-F, B-J, C-A, C-B, C-F-1, and R-A

1.1.1 Based on the licensee's submittal, it is unclear which Edition and Addenda of ASME Code, Section XI, is applicable to the specific components listed in the individual relief requests. For example, in RR WF3-ISI-007, the licensee lists the 1980 Edition through the 1981 Addenda, 1992 Edition through the 1993 Addenda, and the 1995 Edition through the 1996 Addenda as having applicable ISI requirements for the subject components. The licensee states that the 1995 Edition through the 1996 Addenda of ASME Code was mandated for implementation of ASME Code, Section XI, Appendix VIII examinations during the interval, however, this does not clear up the multiple ASME Code applicability issues. Please confirm the ASME Code of record for the second interval inservice inspection program at Waterford 3, how the licensee arrived at this edition/addenda of the ASME Code, and the specific requirements for each of the subject components listed in each request for relief.

1.1.2 Provide the start and end dates for the Waterford 3 second 10-year interval inservice inspection program.

1.2 Request for Relief WF3-ISI-007, Examination Category B-A, Items B1.12, B 1.22, B1.30 and B1.40, Pressure Retaining Welds in Reactor Vessel

1.2.1 In the front portion of the licensee's submittal, ASME Code, Item Numbers B1.12, B1.22, B1.30, and B1.40 are listed for RR WF3-ISI-007. However, Table 1 only lists two item numbers (B1.22 and B1.40) with limited examination descriptions. Clarify whether there are only two ASME Code Item Numbers included within this request, or provide additional limited examination descriptions for Item Numbers B1.12 and B1.30 in Table 1.

1.3 Request for Relief WF3-ISI-008, Examination Category B-D, Items B3.10, B3.20, and B3.30, Full Penetration Welded Nozzles in Vessels

1.3.1 The licensee states that during the second 10-year inservice inspection interval, 10 CFR 50.55a(g)(6)(ii)(C) mandated an implementation schedule for licensees to begin using Supplements to the 1995 Edition through the 1996 Addenda of the ASME Code, Section XI, Appendix VIII. However, the licensee further states that all examinations listed for Examination Category B-A were performed prior to this implementation schedule, and these reactor pressure vessel shell weld examinations used ASME Code, Section V, Article 4 of the 1980 Edition through Winter 1981 Addenda.

Specify which ASME Code section was used (Section V, Article 4 or Section XI, Appendix VIII) to determine code coverage for each of the subject welds and the date when each weld examination was performed.

1.4 Request for Relief WF3-ISI-009, Examination Category B-F, Item B5.40, Pressure Retaining Dissimilar Metal Welds in Vessel Nozzles

1.4.1 In the response to the request for additional information, the licensee states that no surface examinations were performed for the subject pressure retaining dissimilar metal welds in vessel nozzles. However, the 1992 Edition through the 1999 Addenda of the ASME Code, Section XI, requires both volumetric and surface examinations for Item Number B5.40. Please confirm whether or not the required surface examinations were performed for the subject welds. If the required surface examinations were not performed, please provide the reference for the NRC document indicating approval for such exemptions.

1.5 Request for Relief WF3-ISI-010, Examination Category B-J, Items B9.11, B9.21, and B9.31, Pressure Retaining Welds in Piping

1.5.1 Confirm that examination procedures, personnel and equipment were qualified in accordance with the ASME Code, Section XI, Appendix VIII for these piping welds.

1.5.2 In the response to the request for additional information, the licensee does not show that both surface and volumetric examinations were applied for all of the subject welds. The 1992 Edition through 1993 Addenda of the ASME Code, Section XI requires both volumetric and surface examinations for the subject components. Please confirm whether or not the required surface examinations were performed for the subject welds. If the required surface examinations were not performed, please provide the reference for the NRC document indicating approval for such exemptions.

1.6 Request for Relief WF3-ISI-0011, Examination Category C-A, Items C1.10, and C1.20, Pressure Retaining Welds in Pressure Vessels

- 1.6.1 For steam generator Intermediate Shell-to-Conical Shell Weld 04-026, and Top Head Torus-to-Top Head Dome Weld 04-029, Table 1 lists the ultrasonic examination as being obstructed by a 4-inch wide insulation support ring and 14 insulation lugs, respectively. Provide further information to discuss whether the limited volumetric coverage could be increased by removal of the subject insulation and supporting appurtenances.
- 1.7 Request for Relief WF3-ISI-012, Examination Category C-B, Item C2.21, Pressure Retaining Nozzle Welds in Vessels**
- 1.7.1 The licensee's submittal states that limited ultrasonic examination is caused by eight insulation lugs located 5.25-inch from the weld centerline of the Nozzle-to-Top Head Dome Weld 04-030. Provide further information to discuss whether the limited volumetric coverage could be increased by removal of the subject insulation and supporting appurtenances.
- 1.7.2 In the response to the request for additional information, the licensee states that no surface examinations were performed for the subject pressure retaining nozzle welds. However, the 1992 Edition through the 1993 Addenda of the ASME Code, Section XI requires both volumetric and surface examinations for Item Number C2.21 nozzle welds. Please confirm whether or not the required surface examinations were performed for the subject welds. If the required surface examinations were not performed, please provide the reference for the NRC document indicating approval for such exemptions.
- 1.8 Request for Relief WF3-ISI-013, Examination Category C-F-1, Items C5.11, and C5.21, Pressure Retaining Welds in Austenitic Stainless Steel or High Alloy Piping**
- 1.8.1 In the response to the request for additional information, the licensee does not show that both surface and volumetric examinations were applied to all of the subject welds. The 1992 Edition through the 1993 Addenda of the ASME Code, Section XI requires both volumetric and surface examinations for both Item Number C5.11 and C5.21 piping welds. Please confirm whether or not the required surface examinations were performed for the subject welds. If the required surface examinations were not performed, please provide the reference for the NRC document indicating approval for such exemptions.
- 1.9 Request for Relief WF3-ISI-014, Examination Category R-A, Item R1.20, Risk-Informed Piping Examinations**
- 1.9.1 The licensee states ASME Code, Section XI, Code Case N-716, *Alternative Piping Classification and Examination Requirements, Section XI, Division 1*, requirements were implemented for the subject weld volumetric examinations. However, the licensee's submittal does not discuss NRC approval for use of this Code Case. Please provide the reference for the NRC Safety Evaluation, indicating approval, for performing the subject weld examinations under the requirements of ASME Code, Section XI, Code Case N-716. State whether any conditions were imposed by NRC for the use of the Code Case, and how these conditions were satisfied.

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