

NRR-PMDAPEm Resource

From: Venkataraman, Booma
Sent: Tuesday, November 22, 2016 10:17 AM
To: Williams, Murray
Cc: Guzman, Richard; Render, Diane; Jenkins, Joel; Young, Austin
Subject: RE: PILGRIM: Request for Additional Information for Relief Requests on Volumetric Exam Requirements, PNPS-ISI-001, 002 and 003 (CAC NOS. MF8092, MF8093 and MF8094)
Attachments: MF8094_ RAI ISI-003.docx; MF8092_ RAI for ISI-001.docx; MF8093_ ISI-002 RAI.docx
Expires: Saturday, January 21, 2017 12:00 AM

Murray,

Thanks for pointing to me about the watermarks. Here are the correct 'final' files.

Thanks, Booma

From: Venkataraman, Booma
Sent: Monday, November 21, 2016 4:22 PM
To: 'Williams, Murray' <mwill13@entergy.com>
Cc: Guzman, Richard <Richard.Guzman@nrc.gov>; Render, Diane <Diane.Render@nrc.gov>; Jenkins, Joel <Joel.Jenkins@nrc.gov>; Young, Austin <Austin.Young@nrc.gov>
Subject: PILGRIM: Request for Additional Information for Relief Requests on Volumetric Exam Requirements, PNPS-ISI-001, 002 and 003 (CAC NOS. MF8092, MF8093 and MF8094)

By letter dated June 29, 2016 (Agencywide Documents and Access Management System Accession No. ML16188A269), pursuant to 10 CFR 50.55a(g)(6)(i), Entergy Nuclear Operations, Inc. (the licensee), requested relief from the requirements of the American Society of Mechanical Engineers, Boiler and Pressure Vessel Code, Section XI pertaining to volumetric examinations at the Pilgrim Nuclear Power Station (PNPS) at different locations on the basis of impracticality. These reliefs are for the Fourth PNPS 10-Year Inservice Inspection Interval which ended June 30, 2015. This e-mail applies to the following reliefs:

<u>Relief Request</u>	<u>Description</u>
PNPS-ISI-001	Pressure Retaining Welds in Reactor Vessels – Inspection Program B
PNPS-ISI-002	Full Penetration Welded Nozzles in Vessels- Inspection Program B
PNPS-ISI-003	Welded Attachments for Vessels, Piping, Pumps, and Valves- Inspection Program B

A draft request for information (RAI) was sent to you on October 31, 2016 for the above reliefs. Entergy advised that no clarification call was required. It was agreed that Entergy will respond to the RAIs with a supplement by December 21, 2016.

Please treat this e-mail as transmittal of formal RAIs. If circumstances result in the need to revise the requested response date, please contact me at (301) 415-2934 or via email at Booma.Venkataraman@nrc.gov.

Thanks, Booma

Booma Venkataraman, P.E.

Project Manager, NRR/DORL/LPL1-1

Office of Nuclear Reactor Regulation

Booma.Venkataraman@nrc.gov

301.415.2934

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Subject: RE: PILGRIM: Request for Additional Information for Relief Requests on Volumetric Exam Requirements, PNPS-ISI-001, 002 and 003 (CAC NOS. MF8092, MF8093 and MF8094)

Sent Date: 11/22/2016 10:16:45 AM

Received Date: 11/22/2016 10:16:00 AM

From: Venkataraman, Booma

Created By: Booma.Venkataraman@nrc.gov

Recipients:

"Guzman, Richard" <Richard.Guzman@nrc.gov>

Tracking Status: None

"Render, Diane" <Diane.Render@nrc.gov>

Tracking Status: None

"Jenkins, Joel" <Joel.Jenkins@nrc.gov>

Tracking Status: None

"Young, Austin" <Austin.Young@nrc.gov>

Tracking Status: None

"Williams, Murray" <mwill13@entergy.com>

Tracking Status: None

Post Office:

Files	Size	Date & Time
MESSAGE	2190	11/22/2016 10:16:00 AM
MF8094_ RAI ISI-003.docx	33517	
MF8092_ RAI for ISI-001.docx	26822	
MF8093_ ISI-002 RAI.docx	34595	

Options

Priority: Standard

Return Notification: No

Reply Requested: No

Sensitivity: Normal

Expiration Date: 1/21/2017

Recipients Received:

REQUEST FOR ADDITIONAL INFORMATION
ON THE FOURTH TEN YEAR 10-YEAR INSERVICE INSPECTION INTERVAL
REQUEST FOR RELIEF PNPS-ISI-003
PILGRIM NUCLEAR POWER STATION
ENTERGY NUCLEAR OPERATIONS, INC
DOCKET NO. 50-293
(CAC NO.: MF8094)

By letter dated June 29, 2016, (Agencywide Documents Access and Management System (ADAMS), Accession No. ML16188A269), Entergy Nuclear Operations (the licensee), submitted Request for Relief No. PNPS-ISI-003 from certain requirements of the American Society of Mechanical Engineers, Boiler and Pressure Vessel Code (ASME Code), under the provisions of Title 10 of the Code of Federal Regulations (10 CFR), Part 50, Section 50.55a(g)(5)(iii), for the fourth 10-year ISI Program for Pilgrim Nuclear Power Station. The NRC has determined that the following additional information is necessary to complete its review and make a regulatory decision.

RAI 1

In Attachment 3 of the licensee submittal, this relief request references both ASME Section XI 1998 Edition w/ 2000 Addenda, Table IWB-2500-1 and ASME Section XI 2001 Edition w/ 2003 Addenda, Table IWB-2500-1. Please identify the Code of Record that applies to this relief request and clarify which aspects of the relief request refer to the ASME Section XI 1998 Edition w/ 2000 Addenda, and which aspects of the relief request refer to the ASME Section XI 2001 Edition w/ 2003 Addenda.

RAI 2

In Attachment 3, Section III of the licensee submittal, this relief request states that magnetic particle examinations were performed utilizing Entergy approved procedures. Please confirm that these examinations were performed in accordance with the ASME Code and provide the ASME Code requirement applied for these surface examinations (e.g., ASME Code, Section V, Article 7.)

RAI 3

In Attachment 3, Section III of the licensee submittal, this relief request states that surface examination could only be performed on the top side of the RPV stabilizer weld, but that "examination performed on the subject items in addition to the examination of other vessel welds contained in the inservice inspection program would detect generic degradation" and would demonstrate an acceptable level of integrity.

a) Please discuss if any visual examination was performed for the RPV stabilizer weld and discuss how the examination of other vessel welds could detect degradation of the bottom side of the RPV stabilizer weld.

b) Also, please discuss either the safety significance of degradation (such as crack initiation and growth) on the bottom side of the RPV stabilizer weld, or provide a probabilistic risk assessment of degradation on the bottom side of the weld leading to failure of the weld.

REQUEST FOR ADDITIONAL INFORMATION
REQUEST FOR RELIEF PNPS-ISI-001
PILGRIM NUCLEAR POWER STATION
FOURTH TEN-YEAR INSERVICE INSPECTION INTERVAL
ENTERGY NUCLEAR OPERATIONS, INC.
DOCKET NO. 50-293
CAC NO. MF8092

By letter dated June 29, 2016 (Agencywide Documents Access and Management System (ADAMS) Accession Number ML16188A269) Entergy Nuclear Operations Inc. (Entergy, the licensee) submitted relief request PNPS-ISI-001, requesting relief from the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code (Code), Section XI, Rules for Inservice Inspection (ISI) of Nuclear Power Plant Components, under the provisions of Title 10 of the *Code of Federal Regulations*, Part 50, Paragraph 50.55a(g)(5)(iii), for the fourth 10-year ISI Program for Pilgrim Nuclear Power Station. The NRC has determined that the following additional information is necessary to complete its review and make a regulatory decision.

RAI 1

The licensee references both ASME Section XI 1998 Edition w/ 2000 Addenda, Table IWB-2500-1 and ASME Section XI 2001 Edition w/ 2003 Addenda, Table IWB-2500-1 as the codes of record for the submittal. Please identify the Code of Record that applies to this relief request and clarify which aspects of the relief request refer to the ASME Section XI 1998 Edition w/ 2000 Addenda, and which aspects of the relief request refer to the ASME Section XI 2001 Edition w/ 2003 Addenda.

RAI 2

The reference drawings are unclear as to what sections of the weld are being covered by the examinations and how the obstructions impede movement of the scanners. This can be attributed to overlapping scanner images, and unrepresented or unlabeled obstructions. Therefore, the NRC staff requests that the licensee graphically clarify what sections of the welds are covered by the examinations and identify where the obstructions lie on the figures which preclude examination of certain sections of the weld. Lastly where there are more than two scanner images on the same figure, implying more than one scan, please confirm which two scanners are associated with one scan and resultantly what sections of the weld are covered by that scan.

RAI 3

Weld RPV-L-2-339 A, states that there was a drop in coverage from the last inspection due to the differences in the design of the inside surface scanner utilized. This change in design resulted in a drop in coverage from 81% to 18%. Please justify how this examination provides an equivalent or greater standard of quality and safety with this drop in coverage.

RAI 4

Weld RPV-L-1-338C reports 56.2% coverage but attachment 5 reports 55.6% coverage. Please clarify.

REQUEST FOR ADDITIONAL INFORMATION
ON THE FOURTH TEN YEAR 10-YEAR INSERVICE INSPECTION INTERVAL
REQUEST FOR RELIEF PNPS-ISI-002
PILGRIM NUCLEAR POWER STATION
ENTERGY NUCLEAR OPERATIONS, INC
DOCKET NO. 50-293
(CAC NO.: MF8093)

By letter dated June 29, 2016, (Agencywide Documents Access and Management System (ADAMS), Accession No. ML16188A269), Entergy Nuclear Operations (the licensee), submitted Request for Relief No. PNPS-ISI-002 from certain requirements of the American Society of Mechanical Engineers, Boiler and Pressure Vessel Code (ASME Code), under the provisions of Title 10 of the Code of Federal Regulations (10 CFR), Part 50, Section 50.55a(g)(5)(iii), for the fourth 10-year ISI Program for Pilgrim Nuclear Power Station. The NRC has determined that the following additional information is necessary to complete its review and make a regulatory decision.

RAI 1

In Attachment 2 of the licensee submittal, this relief request references both ASME Section XI 1998 Edition w/ 2000 Addenda, Table IWB-2500-1 and ASME Section XI 2001 Edition w/ 2003 Addenda, Table IWB-2500-1. Please identify the Code of Record that applies to this relief request and clarify which aspects of the relief request refer to the ASME Section XI 1998 Edition w/ 2000 Addenda, and which aspects of the relief request refer to the ASME Section XI 2001 Edition w/ 2003 Addenda.

RAI 2

a) In Attachment 2, Section III of the licensee submittal, this relief request states that ultrasonic examinations were performed utilizing Entergy approved procedures specific to ferritic vessels greater than 2 inches in thickness. Please confirm that these examinations were performed in accordance with the ASME Code, and provide the ASME Code requirement applied for these ultrasonic examinations (e.g., Section XI, Appendix VIII, or Section V, Article 4, or other.)

b) If Section XI, Appendix VIII is applicable to this relief request, identify any Appendix VIII Supplements that were applied.

c) In Attachment 2, Section III of the licensee submittal, this relief request states that full coverage could not be obtained during ultrasonic examination of the “non-Appendix VIII Pressurizer Nozzle-to-Vessel welds listed in Attachment 6 Table 2-1.” However, the Item B3.90 welds described in Attachment 2 and in Attachment 6, Table 2-1 of the licensee submittal, are reactor vessel welds and not pressurizer welds. Please clarify or correct the statement regarding “non-Appendix VIII Pressurizer Nozzle-to-Vessel welds”.

RAI 3

a) For this relief request please confirm that inner radius examinations were performed as required by Section XI, Figures IWB-2500-7(a) through (d) of the ASME Code.

b) For any inner radius examinations as described in (a) above, please provide the ASME Code

requirement applied for these volumetric examinations (e.g., Section XI, Appendix VIII, with Supplement 5, or other.)

RAI 4

In Attachment 2, Section III of the licensee submittal, this relief request states that 0, 45, 60 and 70 degree beam angles used in the axial and circumferential direction were not able to achieve greater than 90% code required volume. But the calculation sheets and sketches provided by the licensee do not indicate any beam angles other than 60 degrees. Please clarify if angles other than 60 degrees were used for scanning, and if so, why those angles were not included in the calculation sheets and sketches included in the licensee submittal.