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Robert J. Murillo
Licensing Manager
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W3F1-2008-0040

May 29, 2008

U.S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, DC 20555-0001

Subject: Summary of Weld Overlay Ultrasonic Examinations for Pressurizer And Hot Leg Nozzle Welds at Waterford 3 Steam Electric Station.
Waterford Steam Electric Station, Unit 3 (Waterford 3)
Docket No. 50-382
License No. NPF-38

Reference: NRC Letter to Entergy dated April 21, 2008 Approval of, "Request for Alternative W3-R&R-006 – Proposed Alternative to ASME Code Requirements for Weld Overlay (TAC NO. MD5388)."

Dear Sir or Madam:

By the reference letter dated April 21, 2008, the NRC approved the request by Entergy Operations, Inc.(Entergy) for inservice inspection (ISI) program to the requirements of the American Society of Mechanical Engineers Boiler and Pressure Vessel Code, Section XI. The requested relief was for the installation of preemptive full structural weld overlays on dissimilar metal welds of one pressurizer surge nozzle, one pressurizer spray nozzle, three pressurizer safety/relief valve nozzles, one hot leg surge nozzle, two hot leg shutdown cooling nozzles and one hot leg drain nozzle.

As part of the request, Entergy committed to submit the following information to the NRC within 14 days following completion of final Ultrasonic (UT) examinations of the weld overlays:

(a) Weld overlay examination results, including a listing of indications detected,

(b) Disposition of all indications using the standards of ASME Section XI, IWB-3514-2 and/or IWB-3514-3 criteria and, if possible, the type and nature of the indications, and

(c) A discussion of any repairs to the weld overlay material and/or base metal and the reason for the repairs.

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This information is provided in the attachment to this letter. The final UT examination of the weld overlays was completed on May 16, 2008.

There are no new commitments contained in this submittal.

If you have any questions or require additional information, please contact Robert Murillo at (504) 739-6715.

Sincerely,

RJM/OPP/ssf

Attachment: Summary of Weld Overlay Ultrasonic Examinations for Pressurizer And Hot Leg Nozzle Welds at Waterford 3 Steam Electric Station

cc: Mr. Elmo E. Collins, Jr.
Regional Administrator
U. S. Nuclear Regulatory Commission
Region IV
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Arlington, TX 76011-4125

NRC Senior Resident Inspector
Waterford Steam Electric Station Unit 3
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U. S. Nuclear Regulatory Commission
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1111 Pennsylvania Avenue, NW
Washington, DC 20004

Attachment

W3F1-2008-0040

Summary of Weld Overlay Ultrasonic Examinations for Pressurizer
And Hot Leg Nozzle Welds at Waterford 3 Steam Electric Station

Structural Integrity Associates, Inc.

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May 17, 2008
SIR-08-126-NPS, Rev. 0

Mr. Terry Boozer
Entergy Operations, Inc.
Waterford Steam Electric Station, Unit 3
17265 River Road
Killona, LA 70075

Subject: Summary of Weld Overlay Ultrasonic Examinations for Pressurizer Surge, Spray, and Safety Relief, and Hot Leg Surge, Shutdown Cooling and Drain Nozzle-to-Safe End Welds at Entergy Waterford Steam Electric Station, Unit 3

Reference: Revised Request for Alternative W3-R&R-006, Proposed Alternative to ASME Code Requirements for Weld Overlay Repairs, Waterford Steam Electric Station, Unit 3 February 21, 2008

Dear Mr. Boozer:

The following attachment is transmitted in support of Entergy's response to commitments in the above-referenced request for alternative:

Attachment: A report summarizing the ultrasonic examinations performed on the Waterford Steam Electric Station, Unit 3 weld overlays. The examinations were performed using Structural Integrity's PDI qualified ultrasonic examination procedures and examiners. No flaw indications were detected in the overlays, and thus no disposition of indications was required.

If you have any questions or comments regarding this summary, please contact one of the undersigned.

Prepared by:

Ned A. Finney, Jr. 5/17/08
Ned A. Finney, Jr. Date
Senior Consultant, NDE Level III

Verified by:

Chris S. Lohse 05/17/08
Chris S. Lohse Date
Engineering Analyst

Approved by:

James W. Axline 5/17/08
James W. Axline, P.E. Date
Senior Consultant

Attachment

cc: David Goetcheus
Project File: WSES-19Q-404

Attachment

Summary of Weld Overlay Ultrasonic Examinations for Pressurizer Surge, Spray, and Safety Relief, and Hot Leg Surge, Shutdown Cooling and Drain Nozzle-to-Safe End Welds
Waterford Steam Electric Station, Unit 3

Ultrasonic Examination Procedure

SI-UT-126, Revision 3, *Procedure for the Phased Array Ultrasonic Examination of Weld Overlaid Similar and Dissimilar Metal Welds*, was used for examinations of the Pressurizer Surge, Spray, and Safety Relief, and Hot Leg Shutdown Cooling and Surge nozzle weld overlays (WOL).

SI-UT-128, Revision 1, *Manual Conventional Ultrasonic Examination of Weld Overlaid Similar and Dissimilar Metal Welds*, was used for examinations of the Hot Leg Drain nozzle WOL. These procedures, and the examiners who applied the procedure, are qualified through the PDI Program at the EPRI NDE Center.

Pressurizer Surge Nozzle Weld Overlay Examination

Component Identification: Pressurizer Surge Nozzle Weld Overlay (Welds: 16-017 and 16-016)
Examination Date: 05/08/08
Examination Time: 12:02 – 13:26
Weld Overlay Regions Examined: Overlay, Weld and Base Material (Outer 25%) Dissimilar Metal (DM) Weld and Adjacent Stainless Steel (SS) Weld

Axial Examination Angles: 0° through 83° (Minimum Range)
Circumferential Examination Angles: 0° through 69°

Examination Summary: No suspected flaw indications were observed during the examinations. The examination gain was adjusted to maintain the procedure-specified baseline noise level from 5% to 20% of full screen height. The lower range of examination angles detected responses from the inside surface of the component which were useful for monitoring search unit contact / coupling effectiveness during the examination. During the course of the examinations, 100% coverage of the weld overlay material was achieved, 92.6% coverage of the Code-required volume (CRV) for the DM weld was achieved and 86.6% coverage of the CRV for the SS weld was achieved.

Pressurizer Spray Nozzle Weld Overlay Examination
Component Identification: Pressurizer Spray Nozzle Weld Overlay (Welds: 25-029 and 25-028)
Examination Date: 05/10/08
Examination Time: 12:11 – 13:36
Weld Overlay Regions Examined: Overlay, Weld and Base Material (Outer 25%) DM Weld and Adjacent SS Weld

Axial Examination Angles: 0° through 83° (Minimum Range)
Circumferential Examination Angles: 0° through 59° (Minimum)

Examination Summary: No suspected flaw indications were observed during the examinations. The examination gain was adjusted to maintain the procedure-specified baseline noise level from 5% to 20% of full screen height. The lower range of examination angles detected responses from the inside surface of the component which were useful for monitoring search unit contact / coupling effectiveness during the examination. During the course of the examinations, 100% coverage of the weld overlay material was achieved, 100% coverage of the CRV for the DM weld was achieved and 100% coverage of the CRV for the SS weld was achieved.

Pressurizer Safety Relief Valve A Nozzle Weld Overlay Examination

Component Identification: Pressurizer Safety Relief Valve A Nozzle Weld Overlay (Weld: 26-006)
Examination Date: 05/10/08
Examination Time: 13:46 – 14:22
Weld Overlay Regions Examined: Overlay, Weld and Base Material (Outer 25%) DM Weld

Axial Examination Angles: 0° through 84°
Circumferential Examination Angles: 0° through 64°

Examination Summary: No suspected flaw indications were observed during the examinations. The examination gain was adjusted to maintain the procedure-specified baseline noise level from 5% to 20% of full screen height. The lower range of examination angles detected responses from the inside surface of the component which were useful for monitoring search unit contact / coupling effectiveness during the examination. During the course of the examinations, 100% coverage of the weld overlay material was achieved and 93.0% coverage of the CRV for the DM weld was achieved.

Pressurizer Safety Relief Valve B Nozzle Weld Overlay Examination
Component Identification: Pressurizer Safety Relief Valve B Nozzle Weld Overlay (Weld: 26-001)
Examination Date: 05/10/08
Examination Time: 14:26 – 14:53
Weld Overlay Regions Examined: Overlay, Weld and Base Material (Outer 25%) DM Weld

Axial Examination Angles: 0° through 83° (Minimum Range)
Circumferential Examination Angles: 0° through 64°

Examination Summary: No suspected flaw indications were observed during the examinations. The examination gain was adjusted to maintain the procedure-specified baseline noise level from 5% to 20% of full screen height. The lower range of examination angles detected responses from the inside surface of the component which were useful for monitoring search unit contact / coupling effectiveness during the examination. During the course of the examinations, 100% coverage of the weld overlay material was achieved and 91.7% coverage of the CRV for the DM weld was achieved.

Pressurizer Safety Relief Valve C Nozzle Weld Overlay Examination

Component Identification: Pressurizer Spare (Capped) Nozzle Weld Overlay (Weld: 26-010)
Examination Date: 05/10/08
Examination Time: 14:54 – 15:28
Weld Overlay Regions Examined: Overlay, Weld and Base Material (Outer 25%) DM Weld

Axial Examination Angles: 0° through 84°
Circumferential Examination Angles: 0° through 64°

Examination Summary: No suspected flaw indications were observed during the examinations. The examination gain was adjusted to maintain the procedure-specified baseline noise level from 5% to 20% of full screen height. The lower range of examination angles detected responses from the inside surface of the component which were useful for monitoring search unit contact / coupling effectiveness during the examination. During the course of the examinations, 100% coverage of the weld overlay material was achieved and 92.3% coverage of the CRV for the DM weld was achieved.

Hot Leg Shutdown Cooling A Nozzle Weld Overlay Examination
Component Identification: Hot Leg Shutdown Cooling A Nozzle Weld Overlay (Welds: 15-008 and 21-001)
Examination Date: 05/15/08
Examination Time: 22:30 – 23:50
Weld Overlay Regions Examined: Overlay, Weld and Base Material (Outer 25%) DM Weld and Adjacent SS Weld

Axial Examination Angles: 0° through 84°
Circumferential Examination Angles: 0° through 69°

Examination Summary: No suspected flaw indications were observed during the examinations. The examination gain was adjusted to maintain the procedure-specified baseline noise level from 5% to 20% of full screen height. The lower range of examination angles detected responses from the inside surface of the component which were useful for monitoring search unit contact / coupling effectiveness during the examination. During the course of the examinations, 100% coverage of the weld overlay material was achieved, 91.6% coverage of the CRV for the DM weld was achieved and 92.5% coverage of the CRV for the SS weld was achieved.

Hot Leg Shutdown Cooling B Nozzle Weld Overlay Examination

Component Identification: Hot Leg Shutdown Cooling B Nozzle Weld Overlay (Welds: 06-006 and 22-001)
Examination Date: 05/14/08
Examination Time: 16:45 – 17:59
Weld Overlay Regions Examined: Overlay, Weld and Base Material (Outer 25%) DM Weld and Adjacent SS Weld

Axial Examination Angles: 0° through 84° (Minimum Range)
Circumferential Examination Angles: 0° through 69°

Examination Summary: No suspected flaw indications were observed during the examinations. The examination gain was adjusted to maintain the procedure-specified baseline noise level from 5% to 20% of full screen height. The lower range of examination angles detected responses from the inside surface of the component which were useful for monitoring search unit contact / coupling effectiveness during the examination. During the course of the examinations, 100% coverage of the weld overlay material was achieved, 90.1% coverage of the CRV for the DM weld was achieved and 92.3% coverage of the CRV for the SS weld was achieved.

Hot Leg Surge Nozzle Weld Overlay Examination
Component Identification: Hot Leg Surge Nozzle Weld Overlay (Welds: 15-009 and 16-001)
Examination Date: 05/15/08
Examination Time: 00:53 – 02:27
Weld Overlay Regions Examined: Overlay, Weld and Base Material (Outer 25%) DM Weld and Adjacent SS Weld

Axial Examination Angles: 0° through 84° (Minimum Range)
Circumferential Examination Angles: 0° through 69°

Examination Summary: No suspected flaw indications were observed during the examinations. The examination gain was adjusted to maintain the procedure-specified baseline noise level from 5% to 20% of full screen height. The lower range of examination angles detected responses from the inside surface of the component which were useful for monitoring search unit contact / coupling effectiveness during the examination. During the course of the examinations, 100% coverage of the weld overlay material was achieved, 92.6% coverage of the CRV for the DM weld was achieved and 87.6% coverage of the CRV for the SS weld was achieved.

Hot Leg Drain Nozzle Weld Overlay Examination
Component Identification: Hot Leg Drain Nozzle Weld Overlay (Welds: 15-006 and 32-001)
Examination Date: 05/15/08
Examination Time: 19:02 to 20:00
Weld Overlay Regions Examined: Overlay, Weld and Base Material (Outer 25%) DM Weld and Adjacent SS Weld

Axial Examination Angles: 0°, 45°, 60°, 70° and ODCr (Outer Diameter Creeping wave)
Circumferential Examination Angles: 0°, 31°, 36°, 45°, and ODCr

Examination Summary: No suspected flaw indications were observed during the examinations. The examination gain was adjusted to maintain the procedure-specified baseline noise level from 5% to 20% of full screen height. During the course of the examinations, 100% coverage of the weld overlay material was achieved, 100% coverage of the CRV for the DM weld was achieved and 100% coverage of the CRV for the SS weld was achieved.