

April 19, 2007

U. S. Nuclear Regulatory Commission
Document Control Desk
Washington, D.C. 20555-0001

Subject: Duke Power Company LLC d/b/a
Duke Energy Carolinas, LLC (Duke)
McGuire Nuclear Station, Unit 1
Docket No. 50-369
Relief Request 07-GO-0001

Pursuant to 10 CFR 50.55a(a)(3)(i), on January 24, 2007, Duke requested NRC approval to use alternatives to the American Society of Mechanical Engineers Boiler and Pressure Vessel Code (ASME Code), Section XI Inservice Inspection (ISI) requirements for McGuire Unit 1. The proposed alternative approach was to support application of full structural weld overlays on various pressurizer nozzle-to-safe end welds.

The January 24, 2007 request contained the following regulatory commitment:

"The following information will be submitted to the NRC within 14 days of completion of the final UT on each unit included in this relief request. Also included in the results will be a discussion of any repairs to the overlay material and/or base metal and the reason for the repair.

- a listing of flaw indications detected
- the 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"

The information required by the commitment above is included as Attachment 1. The inspections were performed using the EPRI Performance Demonstration Initiative (PDI) qualified ultrasonic inspection procedure. No flaw indications were detected in the overlays.

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Questions regarding this submittal should be directed to Mitch Hatley at (704) 875-5456
or Kay Crane at (704) 875-4306.

A handwritten signature in cursive script that reads "Regina T. Kaplan for". The signature is written in black ink and is positioned above the printed name of the signatory.

Gary R. Peterson

Attachment

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cc: W. D. Travers, Region II Administrator
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McGuire Nuclear Station

Attachment

Summary of Ultrasonic Examinations of Preemptive Weld Overlays
for Pressurizer Nozzle Locations Containing Alloy 600 Materials

Ultrasonic Examination Procedure

SI-UT-126, Revision 0 and Revision 3, *Procedure for the Phased Array Ultrasonic Examination of Weld Overlaid Similar and Dissimilar Metal Welds*, were used during the examinations. SI-UT-126, Revision 0 was used for the examination of the Surge nozzle weld overlay; SI-UT-126, Revision 3 was used for the examination of the remaining weld overlays. This procedure, and the examiners who applied the procedure, are qualified through the PDI Program at the EPRI NDE Center.

Relief Nozzle Weld Overlay Examination

Component Identification: PORV 1-PZR-W4BSE

Examination Date: 04/09/07 Examination Time: 20:30 through 21:30

Examination Regions: Weld Overlay Material, Outer 25% Dissimilar Metal Weld & Adjacent Base Material and Outer 25% Safe End-to-Elbow Weld & Adjacent Base Material.

Axial Examination Angles: 0° through 83°

Circumferential Examination Angles: 0° through 66°

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.

Safety Nozzle NC1 Weld Overlay Examination

Component Identification: 1-NC1 1-PZR-W3SE

Examination Date: 04/09/07 Examination Time: 19:30 through 20:30

Examination Regions: Weld Overlay Material, Outer 25% Dissimilar Metal Weld & Adjacent Base Material and Outer 25% Safe End-to-Elbow Weld & Adjacent Base Material.

Axial Examination Angles: 0° through 83°

Circumferential Examination Angles: 0° through 66°

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.

Safety Nozzle NC2 Weld Overlay Examination

Component Identification: 1-NC2 1-PZR-W4ASE

Examination Date: 04/09/07 Examination Time: 20:00 through 21:00

Examination Regions: Weld Overlay Material, Outer 25% Dissimilar Metal Weld & Adjacent Base Material and Outer 25% Safe End-to-Elbow Weld & Adjacent Base Material.

Axial Examination Angles: 0° through 83°

Circumferential Examination Angles: 0° through 66°

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.

Safety Nozzle NC3 Weld Overlay Examination

Component Identification: 1-NC3 1-PZR-W4CSE

Examination Date: 04/09/07 Examination Time: 21:30 through 22:30

Examination Regions: Weld Overlay Material, Outer 25% Dissimilar Metal Weld & Adjacent Base Material and Outer 25% Safe End-to-Elbow Weld & Adjacent Base Material.

Axial Examination Angles: 0° through 83°

Circumferential Examination Angles: 0° through 66°

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.

Spray Nozzle Weld Overlay Examination

Component Identification: 1-PZR-W2SE

Examination Date: 04/09/07 Examination Time: 18:30 through 19:30

Examination Regions: Weld Overlay Material, Outer 25% Dissimilar Metal Weld & Adjacent Base Material and Outer 25% Safe End-to-Elbow Weld & Adjacent Base Material.

Axial Examination Angles: 0° through 83°

Circumferential Examination Angles: 0° through 65°; 0° through 63°

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.

Surge Nozzle Weld Overlay Examination

Component Identification: 1-PZR-W1SE

Examination Date: 04/04/07 Examination Time: 02:00 through 04:00

Examination Regions: Weld Overlay Material, Outer 25% Dissimilar Metal Weld & Adjacent Base Material and Outer 25% Safe End-to-Pipe Weld & Adjacent Base Material.

Axial Examination Angles: 0° through 83°

Circumferential Examination Angles: 0° through 70°

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.