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Docket Nos.: 50-321
50-366

NL-11-0482

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

**Edwin I. Hatch Nuclear Plant, Units 1 and 2
Request for Additional Information (RAI)
Fourth 10-Year Interval Inservice inspection Program**

Ladies and Gentlemen:

By letter dated July 8, 2010, Southern Nuclear Operating Company, Inc. (SNC), submitted relief requests for the Fourth 10-Year Interval Inservice Inspection Program for Edwin I. Hatch Nuclear Plant, Units 1 and 2. By letter dated November 23, 2010, SNC provided response to NRC requested additional information in letters dated October 5, 2010, regarding review of relief requests ISI-RR-02, ISI-RR-06 and ISI-RR-07, and October 22, 2010, regarding review of relief requests ISI-RR-03, ISI-RR-04, ISI-RR-05, ISI-RR-08, ISI-RR-09, ISI-RR-10, and ISI-RR-11.

By letter dated February 23, 2011, the NRC requested additional information in support of review of relief requests ISI-RR-04 and ISI-RR-10. The SNC response to the NRC RAIs is provided in the Enclosure.

This letter contains no NRC commitments. If you have any questions, please contact Jack Stringfellow at (205) 992-7037.

Respectfully submitted,

A handwritten signature in black ink that reads "Mark J. Ajluni". The signature is written in a cursive style.

M. J. Ajluni
Nuclear Licensing Director

MJA/LPH/lac

Enclosure: Hatch Nuclear Plant – Units 1 and 2, Response to Request for Additional Information Regarding Proposed Relief Requests for the Fourth ISI Interval ISI-RR-04 and ISI-RR-10

U. S. Nuclear Regulatory Commission
NL-11-0482
Page 2

cc: Southern Nuclear Operating Company
Mr. J. T. Gasser, Executive Vice President
Mr. D. R. Madison, Vice President – Hatch
Ms. P. M. Marino, Vice President – Engineering
RTYPE: CHA02.004

U. S. Nuclear Regulatory Commission
Mr. V.M. McCree, Regional Administrator
Mr. P. G. Boyle, NRR Project Manager
Mr. E. D. Morris, Senior Resident Inspector – Hatch

Edwin I. Hatch Nuclear Plant, Units 1 and 2

Enclosure

Response to Request for Additional Information Regarding
Proposed Relief Requests for the Fourth ISI Interval ISI-RR-04 and ISI-RR-10

Enclosure
Response to Request for Additional Information Regarding
Proposed Relief Requests for the Fourth ISI Interval ISI-RR-04 and ISI-RR-10

ISI- RR-04, (HNP, Unit 2) ASME Code, Section XI, Examination Category B-J, Dissimilar Metal Pressure Retaining Welds in Piping NPS 4 or Larger Circumferential Weld

NRC RAI

For Weld 2B21-1FW-12AA-8:

1. What is the weld metal?
2. What is the Generic Letter 88-01 category of this weld?
3. Please discuss the susceptibility of this weld to Intergranular Stress Corrosion Cracking.
4. The NRC staff acknowledges that the weld overlay was applied prior to the Title 10 of the *Code of Federal Regulations*, Part 50, Section 50.55a mandated implementation of Appendix VIII, and that the subject welds has been mitigated by the mechanical stress improvement process. However, the significant lack of creditable coverage for Appendix VIII examinations as a result of the licensee's decision to stop the overlay at the toe of the weld concerns the staff. Please discuss whether plans are in place to increase the creditable coverage of this weld by means such as extending the overlay or performing a Supplement 11 qualification demonstration on a site-specific mockup and if not, then why not?

SNC Response

1. Weld 2B21-1FW-12AA-8 joins an Inconel 600 Safe End Extension to a Carbon Steel Transition Piece using Inconel 182 weld material. This is shown on page E-3.
2. The Generic Letter 88-01 category of weld 2B21-1FW-12AA-8 is Category C. This is due to the weld material not being made of Intergranular Stress Corrosion Cracking (IGSCC) resistant material, and the weld has been given a stress improvement (SI) after more than two years of operation. The weld received a mechanical stress improvement process (MSIP) in 1994.
3. Per the NRC staff positions in Generic Letter 88-01, carbon steel is considered resistant to IGSCC, while Inconel 82 is the only nickel base alloy considered to be resistant to IGSCC. Therefore, MSIP was used to reduce the susceptibility of the Inconel portions of this weldment to IGSCC.
4. Due to the significant lack of coverage for Appendix VIII examinations, this weld is scheduled to receive an overlay prior to the end of the 4th Inservice Inspection Interval which ends December 31, 2015.

Enclosure
Response to Request for Additional Information Regarding
Proposed Relief Requests for the Fourth ISI Interval ISI-RR-04 and ISI-RR-10

ISI- RR-10, (HNP, Unit 2) ASME Code, Section XI, Examination Category B-F, Pressure Retaining Dissimilar Metal Welds in Vessel Nozzle-to Safe End Welds NPS 4 or Larger

NRC RAI

In the response to the NRC's Request for Additional Information, it was noted that two subsurface, circumferentially oriented, planar flaws were detected in Weld 2E21-1CS-10A-21 and one subsurface, circumferentially oriented, planar flaw was detected in weld 2E21-1CS-10B-20. Please describe how these flaws were determined to be subsurface. Is there a reinspection plan in place for these welds? Also, please explain how it is that weld shrinkage created the exact same examination limitation on two different welds.

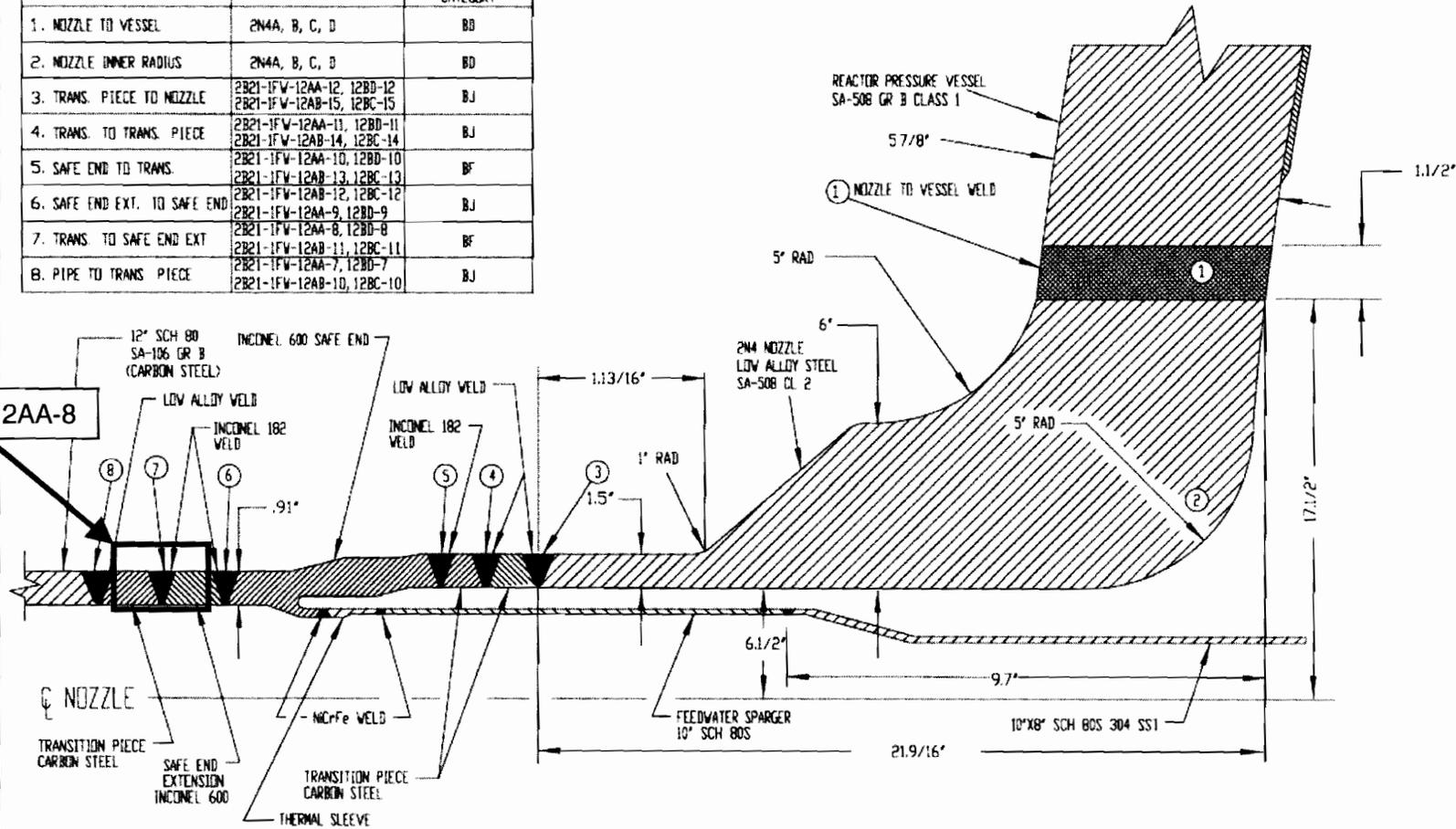
SNC Response

1. SNC is aware of previous examination issues in the industry where only the upper portion of a flaw was detected during an examination and was evaluated as a subsurface flaw. Subsequently, after further weld preparation and re-examination, it was determined that the flaw was actually connected to the inside surface. This situation occurred at Hatch on a recirculation inlet nozzle-to-safe end weld during the same 2009 outage in which the subject Core Spray welds were examined. However, for the Core Spray welds, the automated phased-array display clearly showed that no flaws are closer than 1/4" to the inside surface. Prior to the Core Spray weld examinations, the weld crowns were removed and the only examination interference was from shrinkage at the downstream toe of the welds. A review of the data sheets indicates that there was no interference during the examination of the welds for circumferentially-oriented flaws; therefore, the circumferentially-oriented indications were determined to be subsurface.
2. These flaws were evaluated as subsurface and acceptable in size. Therefore, there are no plans to re-inspect these welds per IWB-2420(b).
3. These Core Spray welds are both safe end-to-nozzle welds (Train A and B) that have essentially the same configuration. Therefore, the weld shrinkage area causing the limitation was in the same location.

Enclosure
 Response to Request for Additional Information Regarding
 Proposed Relief Requests for the Fourth ISI Interval ISI-RR-04 and ISI-RR-10

(12" FEEDWATER NOZZLE ASSEMBLY-4 NOZZLES)

IDENTIFICATION	WELD NO.	CODE CATEGORY
1. NOZZLE TO VESSEL	2N4A, B, C, D	BD
2. NOZZLE INNER RADIUS	2N4A, B, C, D	BD
3. TRANS. PIECE TO NOZZLE	2B21-1FW-12AA-12, 12BD-12 2B21-1FW-12AB-15, 12BC-15	BJ
4. TRANS. TO TRANS. PIECE	2B21-1FW-12AA-13, 12BD-11 2B21-1FW-12AB-14, 12BC-14	BJ
5. SAFE END TO TRANS.	2B21-1FW-12AA-10, 12BD-10 2B21-1FW-12AB-13, 12BC-13	BF
6. SAFE END EXT. TO SAFE END	2B21-1FW-12AB-12, 12BC-12 2B21-1FW-12AA-9, 12BD-9	BJ
7. TRANS. TO SAFE END EXT.	2B21-1FW-12AA-8, 12BD-8 2B21-1FW-12AB-11, 12BC-11	BF
8. PIPE TO TRANS. PIECE	2B21-1FW-12AA-7, 12BD-7 2B21-1FW-12AB-10, 12BC-10	BJ



DATE	3-30-92
REV	1

SOUTHERN NUCLEAR COMPANY

REFERENCE DRAWINGS	823-004 REV 7	22A3836AE REV 1
CE 11570	B 245-270 REV 0	ITS A-35, A-36
823 003 REV 4	828-001 REV 0	
889 001 REV 4		

PROJECT	E I HATCH UNIT 2	TITLE	2N4 NOZZLE ASSEMBLY (FEEDWATER)
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ITS REVIEW	ITS APPL	DRAWN BY	SKETCH NUMBER
W Cole	R L Dyle	GS	2-BF-4