

RS-09-113

August 25, 2009

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

LaSalle County Station, Units 1 and 2
Facility Operating License Nos. NPF-11 and NPF-18
NRC Docket Nos. 50-373 and 50-374

Subject: Response to Request for Additional Information Regarding Relief Request CR-26

- References:
1. Letter from P. R. Simpson (Exelon Generation Company, LLC) to U.S. NRC, "Relief Request CR-26, Inservice Inspection Program Relief Regarding Examination Coverage for Second 10-Year Inservice Inspection Interval," dated October 1, 2008
 2. Letter from C. S. Goodwin (U.S. NRC) to C. G. Pardee, "LaSalle County Station, Units 1 and 2 – Request for Additional Information Related to Request for Relief No. CR-26 (TAC Nos. MD9817 and MD9818)," dated August 13, 2009

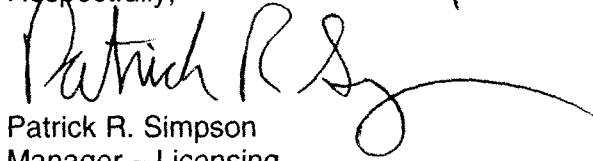
In Reference 1, Exelon Generation Company, LLC (EGC) requested relief from the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code, Section XI, "Rules for Inservice Inspection of Nuclear Power Plant Components," for LaSalle County Station (LSCS) Units 1 and 2. Specifically, CR-26 requested relief on the basis that compliance with the specified requirements is impractical due to plant design. This relief applies to the second 10-year interval inservice inspection program, which concluded on October 1, 2007.

In Reference 2, the NRC requested additional information to complete its review. In response to this request, EGC is providing the attached information.

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There are no regulatory commitments contained in this submittal. Should you have any questions concerning this letter, please contact Mr. Kenneth M. Nicely at (630) 657-2803.

Respectfully,

A handwritten signature in black ink, appearing to read "Patrick R. Simpson", with a long horizontal flourish extending to the right.

Patrick R. Simpson
Manager – Licensing

cc: NRC Regional Administrator, Region III
NRC Senior Resident Inspector – LaSalle County Station

Attachments:

1. Response to Request for Additional Information
2. Supporting Information

ATTACHMENT 1

Response to Request for Additional Information

NRC Request 1

Provide further information to adequately demonstrate the impracticality associated with Weld RH-HX1B-1 on Residual Heat Removal Heat Exchanger 1B. Include sketches or drawings as necessary, to show coverage obtained and describe the materials and the ultrasonic techniques applied.

Response

ASME Code Component Affected

RH-HX1B-1, Residual Heat Removal Heat Exchanger 1B, Shell Head to Nozzle Weld

Applicable Code Requirements

Table IWC-2500-1, Examination Category C-B, Item Number C2.21 and Figure IWC-2500-4(a)

Impracticality of Compliance

The heat exchanger shell head and nozzle materials are carbon steel. During the ultrasonic examination of the shell head to nozzle, reduced coverage was obtained. The coverage reported represents the aggregate coverage from all scans performed on the weld and adjacent base material. Scanning is limited in the transverse direction. The ultrasonic transducers cannot maintain contact due to the curvature of the nozzle base material in the area of the weld. Scanning from the nozzle forging side of the welds is not possible due to tapered areas in the forgings. Due to the cladding on the inside diameter, two directional coverage from one side is not possible. In order to scan all of the required volume for this weld, the nozzles would need to be redesigned to allow scanning from the nozzle side of the welds, which is impractical.

Sketches and Drawings

Residual Heat Removal Heat Exchanger 1B is shown on Struthers Wells Corporation drawing 1-71-09-3097103, Revision 9. This drawing was previously submitted to the NRC in the referenced letter on page 244 of Attachment 4. Weld RH-HX1B-1 is the head to nozzle weld associated with nozzle N3, and the weld is shown in quadrant C7 of the drawing. A plan view is shown in quadrant C8 of the drawing.

Details on the N3 nozzle on Residual Heat Removal Heat Exchanger 1B are shown on Struthers Wells Corporation drawing 1-71-04-30971C3, Revision 2, which is included in Attachment 2.

Ultrasonic Techniques

Weld RH-HX1B-1 was examined in 1996. The ultrasonic examination is documented on data sheet 96-229, which is included in Attachment 2.

ATTACHMENT 1
Response to Request for Additional Information

NRC Request 2

State whether the ASME Code surface examination was completed on the subject weld. If the examinations were performed, what were the results of the examinations?

Response

The ASME Code surface examination was completed on weld RH-HX1B-1. There were no limitations and no indications identified during the 1996 examination. The magnetic particle examination data sheet for weld RH-HX1B-1 (i.e., data sheet # 96-230) is provided in Attachment 2.

NRC Request 3

Address whether or not additional coverage of the subject weld could have been achieved if advanced inspection technologies (e.g., phased array ultrasonic transducers) had been applied.

Response

The components within the scope of relief request CR-26 were examined during the second Inservice Inspection interval, which encompassed the period from October 17, 1994, through September 31, 2007. Accepted inspection technologies for that time period were utilized to complete these examinations. These included updated equipment based on computer modeling of the Residual Heat Removal Heat Exchanger nozzles, and technology resulting from advances in ultrasonic examinations due to the Performance Demonstration Initiative (PDI). At the time, phased array technology was not generally developed by the industry to the point where it could be utilized to perform qualified examinations. Specifically, Exelon Generation Company, LLC's (EGC's) inspection vendor does not yet have a qualified phased array technique for examination of vessel welds. When such advances are available to deliver qualified examinations, they will be assessed to determine whether they can achieve increased inspection coverage.

Reference

Letter from P. R. Simpson (Exelon Generation Company, LLC) to U.S. NRC, "Response to Request for Additional Information Regarding Relief Request CR-26," dated May 26, 2009

ATTACHMENT 2

Supporting Information

Struthers Wells Corporation drawing 1-71-04-30971C3, Revision 2 (1 page)

Ultrasonic Testing Data Sheet No. 96-229 (2 pages)

Magnetic Particle Examination Data Sheet # 96-230 (1 page)

ULTRASONIC TESTING DATA SHEET NDT-D5-C2A

STATION/UNIT: LaSalle / 1 PAGE: 1 OF 2

PROCEDURE: NDT- C-2 REV. 22 DATA SHEET NO.: 96-229 DATE: 2-17-96

CALIBRATION SHEET NO.(S)

ST. BEAM: N/A ANGLE BEAM: axial C-072 circ. C-072

COMPONENT INSPECTED

SYSTEM: RHB WELD #: RH-HX10-1 WELD TYPE: HEAD-NOZZLE

PIPE SIZE: 25" THICKNESS/SCHEDULE: 118 MATERIAL: CS

COMPONENT TEMPERATURE: 100° #155007

SCAN GAIN CONTROL SETTINGS

STRAIGHT BEAM: N/A ANGLE BEAM AXIAL: 50.2 dB

COUPLANT/
BATCH #: ULTRAGEL II / #95325 ANGLE BEAM CIRC.: 50.2 dB

EXAMINATION SCANS

- 1) Base Metal Straight Beam
2) Angle Beam-Normal-Against Flow
3) Angle Beam-Normal-With Flow
4) Angle Beam-Along Weld-CW
5) Angle Beam-Along Weld-CCW
6) Straight Beam of Weld
7) Thickness Across Weld & Base Metal

Performed		Indications		
YES	NO	NO	YES	
	✓			
	✓			
✓		✓		
✓		✓		
✓		✓		
	✓			
✓			1.41"	1.52°
			UP STRM	WELD
				DN STR

ADDITIONAL COMMENTS

NRI SCAN 1B REFLECTS 10% TO 20% ID NOISE LEVEL

NO SCAN 2 DUE TO NOZZLE

EXAMINER: Chris H. McK LEVEL: II DATE: 2-17-96

REVIEWER: Beckwith LEVEL: III DATE: 2-19-96

OTHER: Thomas D. Kibbey LEVEL: III DATE: 3/26/96

STATION: Drake C. Davis DATE: 2/27/96

ANII: 2-22-96 DATE: 3-18-96



GE Nuclear Energy

WALL THICKNESS PROFILE SHEET

SITE: LaSalle Unit 1

PROJECT: L1R07

REPORT NO.:

96-229

SYSTEM: RHB

COMPONENT ID RH-HX1B-1

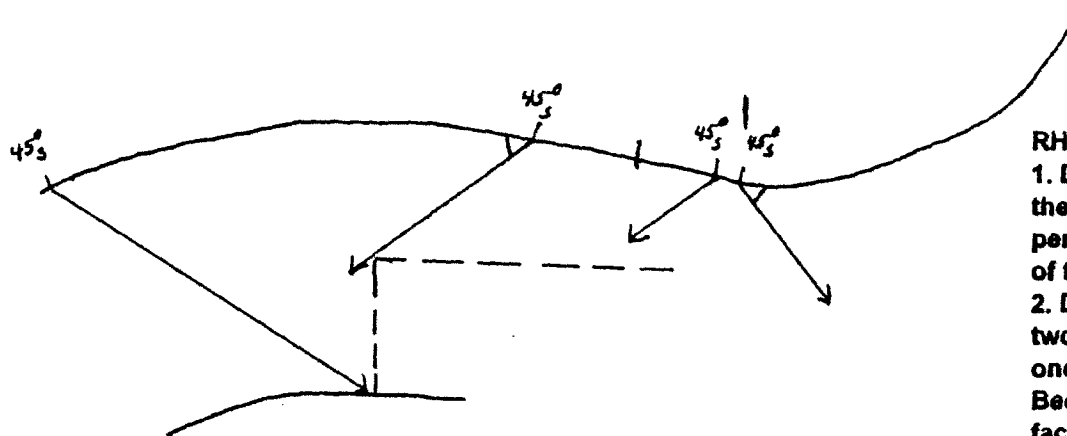
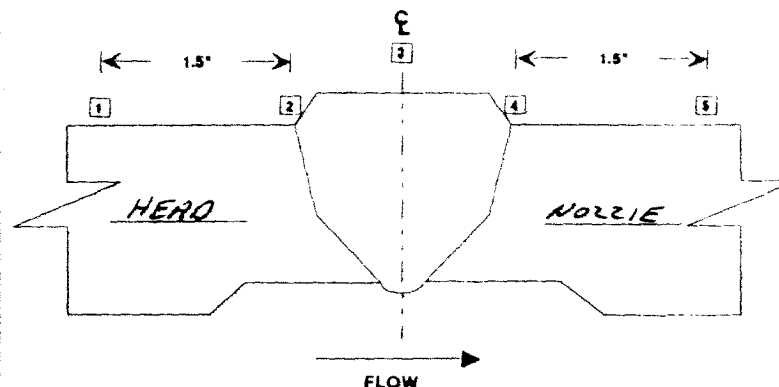
POSITION	0°	90°	180°	270°
1	1.42"			
2	1.41"			
3	1.52"		N/A	
4	N/A			
5	N/A			

CROWN HEIGHT: FLUSH

CROWN WIDTH: 1.5"

NOM DIAMETER: 25 1/4"

WELD LENGTH: 69"



RH-HX1B-1

1. Due to the configuration of the nozzle, no axial exams were performed on the base material of the nozzle.

2. Due to the cladding on the ID two direction coverage from one side is not possible. Because of these two limiting factors, 80% coverage of the code required volume was achieved.

[Signature]

[Signature]
DRAWN BY

II 2-17-96
LEVEL DATE

[Signature]
GE REVIEWED BY

III 2-17-96
LEVEL DATE

[Signature]
SMAD REVIEW BY

3/8/96
DATE

[Signature]
UTILITY REVIEW BY

2/27/96
DATE

PAGE: 2 OF 2

FORM NDT-B-1-F1

MAGNETIC PARTICLE EXAMINATION DATA SHEET

DATE 17 Feb 96 STATION & UNIT LaSalle Unit 1 DATA SHEET # 96-230
EXAMINER JAMES M. BULLEN LEVEL II
SYSTEM RHB / RHR COMPONENT RH-HX1B-1
SECTION XI EDITION & ADDENDA 1989 Edition, No Addenda CODE CLASS II
SECTION XI CATEGORY C-B ACCEPTANCE STD. IWC-3511
PROCEDURE # & REVISION NDT-B-1 Rev. 6 SKETCH SHEET USED: YES N/A NO X
COMMENTS: Configuration: SH (SHELL - HEAD) To (NOZZLE)
NRI

MAGNETIC PARTICLE EXAM:

EQUIPMENT

	Manufacturer	Model/Type	S/N
Yoke	<u>Parker</u>	<u>B300</u>	<u>PAR-AC MT-005</u> Current AC <u>X</u> DC <u></u>
Particles	<u>Magnaflux</u>	<u>BA</u>	<u>93A045</u> Color <u>RED</u>
Black Light	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>
B.L.M. Readings	<u>N/A</u>		
B.L.M. Time Checks	Initial <u>N/A</u>	Final <u>N/A</u>	

EXAM RESULTS

ACCEPT X REJECT

REVIEWED BY:

EXAMINER: James M. Bullen LEVEL: II DATE: 2-17-96
REVIEWER: H. Schmitt LEVEL: III DATE: 2-19-96
OTHER: Thomas J. Shaker LEVEL: III DATE: 3/26/96
STATION: Arthur L. Torres DATE: 2/27/96
ANII: 2-2-96 DATE: 3-18-96