Exelon Generation Company, LLC
Dresden Nuclear Power Station
6500 North Dresden Road
Morris, IL 60450-9765

www.exeloncorp.com

Exelon Nuclear

10CFR 50.55a(g)(5)(iii)

March 14, 2001

PSLTR: 01-0024

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

Dresden Nuclear Power Station, Units 2 and 3
Facility Operating License Nos. DPR-19 and DPR-25
NRC Docket Nos. 50-237 and 50-249

Subject: Relief Request for Impractical Requirements for Inspection of Low Pressure Coolant Injection (LPCI) Heat Exchanger Tubesheet-to-Shell Welds

Reference: Letter from NRC to Mr. D. L. Farrar (ComEd), "Evaluation of The Third Ten-Year Interval Inservice Inspection Program and Associated Requests for Relief for Dresden Nuclear Power Station, Units 2 and 3 (TAC M82861, M82862, M82872, and M82873)," dated May 19, 1994

In accordance with 10 CFR 50.55a, "Codes and Standards," paragraph (a)(3), Dresden Nuclear Power Station (DNPS) is requesting a proposed alternative to existing American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code, Section XI, "Rules for Inservice Inspection of Nuclear Power Plant Components," on the basis that conformance with the Code requirement is impractical as provided for in 10 CFR 50.55a(g)(5)(iii). The alternative proposed by DNPS is described in relief request CR-05, "Inspection of Low Pressure Coolant Injection (LPCI) Heat Exchanger Tubesheet-to-Shell Welds" Relief Request CR-05 is attached and demonstrates that the proposed alternative would provide an acceptable level of quality and safety, as required by 10 CFR 50.55a(3)(i). The attached justification is a revision to a previous relief request approved for DNPS in the referenced letter. The revisions to the previous relief request are indicated with revision bars in the attachment.

DNPS plans to implement Relief Request CR-05 during the third period of the third Inservice Inspection Interval for both Units 2 and 3. For Unit 2, the third Inservice Inspection Interval began on March 1, 1992, and the projected end date is January 19, 2003. For Unit 3, the third Inservice Inspection Interval began on March 1, 1992, and the projected end date is October 31, 2002.

To support a fall 2001 outage for Unit 2, we are requesting approval of these proposed alternatives by October 12, 2001.

A047

Should you have any questions concerning this letter, please contact Mr. D.F. Ambler at (815) 942-2920 extension 3800.

Respectfully,

Preston Swafford

Preston Swafford
Site Vice President
Dresden Nuclear Power Station

Attachment: Relief Request CR-05, "Inspection of Low Pressure Coolant Injection (LPCI) Heat Exchanger Tubesheet-to-Shell Welds"

cc: Regional Administrator – NRC Region III
NRC Senior Resident Inspector – Dresden Nuclear Power Station

RELIEF REQUEST NUMBER: CR-05
Inspection of Low Pressure Coolant Injection (LPCI) Heat Exchanger Tubesheet-to-Shell Welds
(Page 1 of 3)

COMPONENT IDENTIFICATION

Code Class:	2			
References:	ASME Code Section XI Paragraph IWC-2500 ASME Code Section XI Table IWC-2500-1			
Examination Category:	C-A			
Item Number:	C1.30			
Description:	Inspection of Low Pressure Coolant Injection (LPCI) Heat Exchanger Tubesheet-to-Shell Welds.			
Component Numbers:	Unit 2:	2-1503A-1 2-1503A-2 2-1503B-1 2-1503B-2	Unit 3:	3-1503A-1 3-1503A-2 3-1503B-1 3-1503B-2

CODE REQUIREMENT

ASME Code Section XI Paragraph IWC-2500 states that components shall be examined and tested as specified in ASME Code Section XI Table IWC-2500-1.

ASME Code Section XI Table IWC-2500-1 requires a volumetric examination to be performed on heat exchanger tubesheet-to-shellwelds each inspection interval.

BASIS FOR RELIEF

Pursuant to 10 CFR 50.55a, "Codes and Standards," paragraph (g)(5)(iii), relief is requested on the basis that conformance with the Code requirements is impractical.

The Low Pressure Coolant Injection (LPCI) heat exchanger tubesheet-to-shellwelds as shown on Figure CR-05.1 are designed with a geometry that provides a corner trap for ultrasonic signals. The geometric reflectors inherent in this design prevent a meaningful ultrasonic examination from being performed on these welds.

An investigation into the feasibility of performing ultrasonic examinations on the subject welds was conducted during the second ten-year interval of the Inservice Inspection Program for Dresden Nuclear Power Station (DNPS) Units 2 and 3. The investigation

RELIEF REQUEST NUMBER: CR-05
(Page 2 of 3)

BASIS FOR RELIEF (Continued)

consisted of building a mock-up of the tubesheet-to-shellweld configuration and attempting to differentiate notches from the geometric corner trap inherent in the design, utilizing various ultrasonic examination techniques. The investigation concluded that a meaningful ultrasonic examination could not be performed on this joint configuration.

Based on the above, DNPS requests relief from the ASME Section XI, Appendix III requirements for the volumetric examination of the LPCI heat exchanger tubesheet-to-shell welds.

PROPOSED ALTERNATE EXAMINATION

As an alternate examination, DNPS will perform a magnetic particle examination of the subject welds each inspection interval in accordance with extent and frequency examination requirements of Table IWC-2500-1. Additionally, a VT-2 visual examination at nominal operating pressure will be performed on the shell side of the heat exchanger each Inspection Period. Also, the LPCI pump operability test, performed in accordance with Dresden Station Technical Specifications, requires the operator to perform a visual inspection for leakage when the heat exchanger is at operating pressure.

APPLICABLE TIME PERIOD

Relief is requested for the third ten-year interval of the Inservice Inspection program for DNPS Units 2 and 3.

RELIEF REQUEST NUMBER: CR-05
(Page 3 of 3)

FIGURE CR-05.1

LPCI HEAT EXCHANGER TUBESHEET TO SHELL WELD DETAIL