



Tennessee Valley Authority, Post Office Box 2000, Soddy-Daisy, Tennessee 37384-2000

October 26, 2007

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

Gentlemen:

In the Matter )  
Tennessee Valley Authority )

Docket No. 50-327

**SEQUOYAH NUCLEAR PLANT (SQN) - UNIT 1 - PRESSURIZER WELD OVERLAY  
EXAMINATION RESULTS TO RELIEF REQUEST G-RR-1**

Reference: TVA letter to NRC dated December 21, 2006, "Sequoyah Nuclear Plant  
(SQN) - Unit 2 - Pressurizer Weld Overlay Examination Results to Relief  
Request G-RR-1"

TVA completed the weld overlays for SQN's Unit 1 pressurizer and has enclosed the  
Unit 1 examination results. The final weld overlay ultrasonic examination was completed  
on October 21 during the Unit 1 Cycle 15 refueling outage.

The enclosure provides the detailed results of the initial UT inspections performed on the  
Unit 1 pressurizer nozzles following the weld overlay.

In the above referenced letter, TVA provided examination results of the SQN Unit 2 weld  
overlay on Alloy 600 pressurizer nozzle-to-pipe welds. The Unit 2 weld overlays were  
performed during the Unit 2 Cycle 14 refueling outage.

There are no commitments contained in this submittal. If you have any questions about  
this change, please contact me at (423) 843-7170 or J. W. Proffitt at (423) 843-6651.

Sincerely,

Glenn W. Morris  
Manager, Site Licensing and  
Industry Affairs

Enclosure

A047

NRR

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cc (Enclosure):

Mr. Brendan Moroney, Senior Project Manager  
U.S. Nuclear Regulatory Commission  
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**ENCLOSURE**

**TENNESSEE VALLEY AUTHORITY (TVA)  
SEQUOYAH NUCLEAR PLANT (SQN)  
UNIT 1**

**PRESSURIZER WELD OVERLAY RESULTS**

The attached table provides the detailed results of the initial ultrasonic examination (UT) inspections performed on the pressurizer nozzles following the weld overlay. The following is a summary of these results:

Nozzle	Number of Flaw Indications	Flaw Indications Assessment Summary
SPRAY RCF-23A-OL (RCW-24-SE)	No Recordable Indications	N/A
RELIEF RCF-24Q-OL (RCW-26-SE)	No Recordable Indications	N/A
SAFETY RCF-45B-OL (RCW-25-SE)	No Recordable Indications	N/A
SAFETY RCF-42B-OL (RCW-28-SE)	No Recordable Indications	N/A
SAFETY RCF-36B-OL (RCW-27-SE)	No Recordable Indications	N/A
SURGE RC-35A-OL (RCW-29-SE)	No Recordable Indications	N/A

TABLE  
INDICATIONS FOR SQN UNIT 1 PRESSURIZER WELD OVERLAYS (AFTER OVERLAYS DEPOSITED - NO WELD REPAIRS)

NOZZLE ID (Note 2)	INDICATION NUMBER	INDICATION TYPE	UT MEASURE D DEPTH FROM OUTSIDE SURFACE TO CENTER OF FLAW IND.	UT MEASURED LENGTH OF FLAW INDICATION MEASURED ON OD	UT MEASURED POSITION OF FLAW INDICATION FROM REFERENCE MARK (As marked on sketches)	UT MEASURED CIRCUMFERENTIA L POSITION OF FLAW INDICATION IN INCHES FROM 0 REFERENCE POINT (Note 1)	UT MEASURED HEIGHT OF FLAW INDICATION	AVERAGE THICKNESS OF OVERLAY IN LOCATION OF FLAW INDICATION (Note 3)	UT MEASURED WIDTH OF LAMINAR FLAW INDICATION	INDICATION DISPOSITION						FLAW INDICATION INCLUDED IN REPAIR EXCAVATION AREA	REMARK S
										TABLE IWB-3514-3 (Square inches)	<10% REDUCTION IN COVERAGE  PER APPENDIX Q Q-4100(c)(2)  (Note 4)	IWB-3514-2 INSERVICE EXAMINATION FOR ASSUMED FLAWS	IWB-3514-2 PRESERVICE EXAMINATION	FLAW PROPAGATION IN OUTER 25% OF UNDERLYING WELD/BASE METAL PER APPENDIX Q Q-4200(a)	IWB-3640 EVALUATION FOR ASSUMED FLAW PER APPENDIX Q Q-4100(a)		
SPRAY RCF-23A- OL (RCW-24- SE)	No Indications	No Indications	No Indications	No Indications	No Indications	No Indications	No Indications	No Indications	No Indications	N/A	N/A	N/A	N/A	No Indications Found In Outer 25%	N/A	N/A	
RELIEF RCF-24Q- OL (RCW-26- SE)	No Indications	No Indications	No Indications	No Indications	No Indications	No Indications	No Indications	No Indications	No Indications	N/A	N/A	N/A	N/A	No Indications Found In Outer 25%	N/A	N/A	
SAFETY RCF-45B- OL (RCW-25- SE)	No Indications	No Indications	No Indications	No Indications	No Indications	No Indications	No Indications	No Indications	No Indications	N/A	N/A	N/A	N/A	No Indications Found In Outer 25%	N/A	N/A	
SAFETY RCF-42B- OL (RCW-28- SE)	No Indications	No Indications	No Indications	No Indications	No Indications	No Indications	No Indications	No Indications	No Indications	N/A	N/A	N/A	N/A	No Indications Found In Outer 25%	N/A	N/A	
SAFETY RCF-36B- OL (RCW-27- SE)	No Indications	No Indications	No Indications	No Indications	No Indications	No Indications	No Indications	No Indications	No Indications	N/A	N/A	N/A	N/A	No Indications Found In Outer 25%	N/A	N/A	
SURGE RC-35A-OL (RCW-29- SE)	No Indications	No Indications	No Indications	No Indications	No Indications	No Indications	No Indications	No Indications	No Indications	N/A	N/A	N/A	N/A	No Indications Found In Outer 25%	N/A	N/A	

- Notes:
1. Zero reference point for circumferential dimensions are top dead center of weld for Relief and Safety.
  2. The nominal diameters of the component are as follows: Safeties/Relief: 6.0"; Spray: 4.0" and Surge: 14.0".
  3. Measured from the weld overlay OD surface perpendicular to the pipe axis to the weld overlay/base metal interface using the nearest cross section profile.
  4. Reduction in coverage shows the total reduction for both the nozzle to safe end and safe end to pipe welds. Reduction in coverage for axial and circumferential direction is calculated separately per the requirements of EPRI MRP-139 paragraph 5.1.5