VIRGINIA ELECTRIC AND POWER COMPANY Richmond, Virginia 23261

June 4, 2025

U.S. Nuclear Regulatory Commission	Serial No.	25-152
Attention: Document Control Desk	NRA/DPJ	R0
Washington, DC 20555	Docket No.	50-280
-	License No.	DPR-32

VIRGINIA ELECTRIC AND POWER COMPANY SURRY POWER STATION UNIT 1 ASME SECTION XI INSERVICE INSPECTION PROGRAM RELIEF REQUESTS FOR LIMITED COVERAGE EXAMINATIONS PERFORMED IN THE THIRD PERIOD OF THE FIFTH 10-YEAR INSPECTION INTERVAL

The Surry Power Station (SPS) Unit 1 fifth 10-year interval for the inservice inspection program began on December 14, 2013 and ended June 13, 2024. During this interval, certain components received examination coverage that did not meet the requirements of Section XI of the American Society of Mechanical Engineers (ASME), Boiler and Pressure Vessel Code. Two relief requests (S1-I5-LMT-C01 and S1I5-LMT-P01) for this interval were previously submitted and were approved by the NRC by letter dated February 28, 2019 (ADAMS Accession No. ML18331A060). Additional components that received less than the required examination coverage during this interval are identified in Attachments 1 through 3. Accordingly, Virginia Electric and Power Company (Dominion Energy Virginia) requests relief for these components pursuant to 10 CFR 50.55a(g)(5)(iii), on the basis that the required examination coverage was impractical due to physical obstructions and limitations imposed by design, geometry and materials of construction.

Attachments 1 through 3 contain the specific relief requests and the individual basis for each request. These relief requests have been reviewed and approved by the station's Facility Safety Review Committee.

If you have any questions or require additional information, please contact Daniel Johnson at (804) 273-2381.

Sincerely,

James Holloway

James E. Holloway Vice President – Nuclear Engineering and Fleet Support Virginia Electric and Power Company (Dominion Energy Virginia)

Attachments:

- 1. Relief Request S1-I5-LMT-C02 Limited Examination Coverage of the Reactor Vessel Circumferential Shell Welds
- 2. Relief Request S1-I5-LMT-C03 Limited Examination Coverage of the Pressurizer Shell-to-Head Circumferential and Longitudinal Shell Welds
- 3. Relief Request S1-I5-LMT-C04 Limited Examination Coverage of the Pressurizer Nozzle Inner Radius Section

Commitments made in this letter: None

cc: U.S. Nuclear Regulatory Commission – Region II Attn: Regional Administrator Marquis One Tower 245 Peachtree Center Avenue, NE., Suite 1200 Atlanta, Georgia 30303-1257

> L. John Klos (w/o enclosure) NRC Senior Project Manager – (SPS Units 1 and 2) U. S. Nuclear Regulatory Commission One White Flint North Mail Stop 09 E-3 11555 Rockville Pike Rockville, Maryland 20852-2738

NRC Senior Resident Inspector Surry Power Station

Serial No. 25-152 Docket No. 50-280

ATTACHMENT 1

RELIEF REQUEST S1-I5-LMT-C02 LIMITED EXAMINATION COVERAGE OF THE REACTOR VESSEL CIRCUMFERENTIAL SHELL WELDS

VIRGINIA ELECTRIC AND POWER COMPANY (DOMINION ENERGY VIRGINIA) SURRY POWER STATION UNIT 1

Relief Request S1-I5-LMT-C02 Limited Examination Coverage of the Reactor Vessel Circumferential Shell Welds

Proposed Relief in Accordance with 10 CFR 50.55a(g)(5)(iii) Impractical ISI Code Requirements

1. ASME Code Components Affected

The Code components affected are the Class 1 Reactor Vessel Circumferential and Longitudinal Shell Welds.

Weld No.:1-04Drawing:11448-WMKS-RC-R-1.1ASME Class:1ASME Category:B-AASME Item:B1.11Description:Reactor Vessel Lower Shell to Bottom Shell Circumferential
Weld

2. Applicable Code Edition and Addenda

2004 Edition of American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code, Section XI

3. Applicable Code Requirement

The 2004 Edition of ASME Section XI Table IWB-2500-1, Examination category B-A, Item B1.11 requires volumetric examination of essentially 100% of the weld length of all welds. The examination volume is shown in Figure IWB-2500-1. The volume to be examined includes the weld plus 1/2t (t=thickness) of base material on each side of the weld.

Table IWB-2500-1, Examination category B-A, Item B1.21 requires volumetric examination of essentially 100% of the weld length of the accessible length of all welds. The examination volume is shown in Figure IWB-2500-3.

The volume to be examined includes the weld plus 1/2t (t=thickness) of base material on each side of the weld.

4. Impracticality of Compliance

There are four radial core support lugs located at 0°, 90°, 180°, and 270° positions of the vessel inside surface just above the weld which restrict complete coverage of the require examination volume. The ultrasonic examination of this weld was performed by scanning the accessible surfaces between and below the support lugs.

Figure 1-1 shows the general configuration of the reactor vessel and location of weld 1-04.

5. Burden Caused by Compliance

Significant modifications to the design of the RV (Reactor Vessel) would have to be implemented to obtain essentially 100% volumetric coverage. Modification of the reactor vessel is considered impractical and would cause unnecessary radiation exposure to plant personnel and potential detrimental impact to plant equipment.

6. <u>Proposed Alternative and Basis for Use</u>

Weld 1-04 was ultrasonically examined using automated phased array ultrasonic technique and procedure. Scanning was performed to the maximum extent possible for the weld configurations. In the area where scanning was limited, "single-sided" scan parameters (excluding the inner 15%) was used to improve coverage when they could provide improved coverage. The examination procedure has been qualified for single side access to address these configurations.

Weld 1-04 contains three acceptable indications. These flaws are classified as subsurface. These indications were evaluated as acceptable per IWB-3510-1. The indications are characteristic of slag inclusions from the welding process during fabrication. Measured *alt*% was 1.2, 1.4, and 1.7 for the indications compared to an allowable alt% of 2.2, where *alt*% is a ratio of the crack depth and wall thickness.

System leakage tests of the bottom of the RV including the bottom mounted instrumentation penetration nozzles is conducted at the ambient pressure and temperature during the refueling outage, as authorized by the NRC in ADAMS Accession No. ML14192B388 (dated July 17, 2014). The VT-2 visual-examination of both the insulated and non-insulated area of the bottom of the RV including the bottom mounted instrumentation penetration nozzles in accordance with IWA-5240 would detect pressure retaining boundary leakage that would originate from a flaw.

Further, Surry Power Station (SPS) has Technical Specifications (TS) requirements for monitoring leakage from the reactor coolant system.

The total aggregate examination coverage value obtained for weld 1-04 was 82%. The coverage for this weld increased this interval from 73.4% achieved in the previous performance of this examination. The NRC staff determined that imposing the code required coverage requirements was impractical in the third ISI Interval for SPS and concluded that the achieved limited coverage provided reasonable assurance of the structural integrity of the component-reference ADAMS Accession No. ML060540284 (dated March 28, 2006).

Dominion Energy Virginia concludes that the scanning percentage coverage obtained (82%), the VT-2 examination of the RV conducted every refueling outage to detect evidence of leakage, and the TS surveillance requirements to RCS leakage monitoring provide reasonable assurance of structural integrity for the Reactor Vessel Lower Shell to Bottom Shell Circumferential Weld-1-04.

7. Duration of Proposed Alternative

This proposed alternative is requested to meet requirements for the fifth tenyear inspection interval for SPS Unit 1, which began December 14, 2013, and ended on June 13, 2024.



Figure 1-1

Serial No. 25-152 Docket No. 50-280

ATTACHMENT 2

RELIEF REQUEST S1-I5-LMT-C03 LIMITED EXAMINATION COVERAGE OF THE PRESSURIZER SHELL-TO-HEAD CIRCUMFERENTIAL AND LONGITUDINAL SHELL WELDS

VIRGINIA ELECTRIC POWER COMPANY (DOMINION ENERGY VIRGINIA) SURRY POWER STATION UNIT 1

Serial No. 25-152 Docket No. 50-280 Attachment 2, Page 1 of 10

Relief Request S1-I5-LMT-C03

Limited Examination Coverage of the Pressurizer Shell-to-Head Circumferential and Longitudinal Shell Welds

Proposed Relief In Accordance with 10 CFR 50.55a(g)(5)(iii) -Impractical ISI Code Requirements-

1. ASME Code Components Affected:

The Code components affected are the Class 1 Pressurizer Shell-to-Head Circumferential and Longitudinal Welds.

Weld No.:	1-07
Drawing:	11448-WMKS-RC-E-2
ASME Class:	1
ASME Category:	B-B
ASME Item:	B2.11
Description:	Pressurizer Shell-to-Head Circumferential Weld
Weld No.:	1-15
Drawing:	11448-WMKS-RC-E-2
ASME Class:	1
ASME Category:	B-B
ASME Item:	B2.12
Description:	Pressurizer Shell to Head I angitudinal Weld

2. Applicable Code Edition and Addenda

2004 Edition of American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code, Section XI

3. Applicable Code Requirement

The 2004 Edition of ASME Section XI Table IWB-2500-1, Examination category B-B, Item B2.11 requires volumetric examination of essentially 100% of the weld length of both circumferential welds. The examination volume is shown in Figure IWB-2500-1.

Table IWB-2500-1 category B-B, item B2.12, of the 2004 Edition requires volumetric examination of one foot on the longitudinal weld that intersects the selected circumferential shell to head weld.

4. Impracticality of Compliance

The pressurizer is covered with an insulation support ring as shown in Figure 2-1. The insulation support ring is 6 inches wide where examination interference is encountered for weld 1-07. As seen in Figure 2-1, this insulation support ring and a power operated relief valve (PORV) support prevent complete volumetric coverage of both the upper circumferential head weld 1-07 and the intersecting longitudinal weld 1-15. Figures 2-2 and 2-3 contain the examination reports detailing the examination coverage obtained for welds 1-07 and 1-15 respectively.

5. Burden Caused by Compliance

Total removal of the support ring at the mechanical connections is considered impractical due to the extreme high dose rates in the pressurizer area. Total radiation dose to perform removal of the interfering support and to perform the examination is estimated to be 15.13 rem. This includes expended dose necessary for various crafts: mechanical maintenance, insulators, rigging crews and the Non-destructive Examination (NDE) workers. Partial removal of the support ring could allow some increased coverage; however, the actual increase would be very small in relation to the entire weld length. This is not a viable effort when considering consequential disturbance of interconnected cross supports and the welded connections to safety and power operation relief valve supports. Any removal of the mechanical connections or forced spreading apart of components would create a risk of misalignment and possibly warp the structure. Furthermore, civil engineering proposed that cutting the support could be necessary for removal, which would destroy the support ring.

6. Proposed Alternative and Basis for Use

Examination of pressurizer shell welds 1-07 and 1-15 obtained 63.9% and 54.5% of the required examination volume, respectively, with no relevant indications. The coverage for these welds increased above the 46% and 31% achieved respectively for welds 1-07 and 1-15 in the previous performance of this examination during the fourth inservice inspection interval. For the fourth inservice inspection interval, the NRC staff determined that imposing the code required coverage requirements was impractical because access to the pressurizer circumferential welds was severely limited due to the interference caused by the insulation support ring and PORV support disassembly of those structures would impose unwarranted dose. Relief was granted by the staff for the fourth interval and concluded that the limited coverage achieved provided reasonable assurance of the structural integrity of the component-reference ADAMS Accession No. ML16208A009 (dated August 24, 2016).

No additional ultrasonic examination techniques would provide meaningful additional data on this cladded material for the examination volume not attained. The pressurizer receives a visual (VT-2) examination every refueling outage as required by Section XI, Table IWB-2500-1, Category B-P for Class 1 components. Any effort to achieve greater coverage would be impractical, creating risk for component damage or destruction and excessive personnel dose exposure.

Surry Power Station (SPS) also has Technical Specifications (TS) requirements for monitoring leakage from the reactor coolant system (RCS).

Dominion Energy Virginia concludes that the scanning percentage coverage obtained (63.9% and 54.5% respectively for welds 1-07 and 1-15), the VT-2 examination of the pressurizer conducted every refueling outage to detect evidence of leakage, and the TS surveillance requirements for RCS leakage monitoring provide reasonable assurance of structural integrity for the Pressurizer Shell-to-Head Circumferential and Longitudinal Shell Welds.

7. Duration of Proposed Alternative

This proposed alternative is requested to meet requirements for the fifth ten-year inspection interval for SPS Unit 1, which began December 14, 2013 and ended on June 13, 2024.



Figure 2-1

-	-
-	Dominion
200	Enerow

UT Vessel Examination

									Outag	e No.:	5183	1	
Site/Unit:	SPS / 1		Proced	Jure: ER-AA-	-NDE-UT-702			-	Int	/ Per:	5/3		
Summary No.:	S1.B2.11.001		Procedure P	Rev.: 7				-	Repor	rt No.:	ISI-1	-UT-22	-035
Workscope:	ISI		Work Order	No.: 38204	291276/22-00	2	_	-		Page:	1		of <u>3</u>
Code:	ASME XI, 2004Ed		Cat./Item: B-B/B	2.11		Location	: PZR	47					
Drawing No.:	11448-WMKS-RC-E-2		Description:	CIRC SHELL T	TO HEAD WELD	0.502.0246.04							
System ID:	RC							Mater	ial: Carl	bon Ste	el		
Component ID:	11448-WMKS-RC-E-2 / 1	-07		Size/Le	ength: 2.00" /	292.00*		Thickness	/Diameter:	4.3	75" / 9	2.375"	
Limitations:	YesRing Support.				-	Start Time:	1044			Finish	Time:	1251	
Examination Surf	ace: Inside 🗆	Outside		Su	rface Condition:	Ground	Flush						
Lo Location: C/L	of Manway	Wolection	· Weld Centerline		Cruniant Sou	ndsafe			Batch No.	- 21E0	16		
Temp Tool Mfg -	SFALED UNIT	Secial N	4030900376		Coopen it and		Surface T	omo - 69*	_ baccriter		og		
Cal. Report No.:	157-1-CA-22-005 & 151-	1_CA-22-006	4030300370				Handle	emp., os			·		
cal Report No.:	101-1-0A-22-003 0 131-	1-04-22-000											
Angle Used:	0	45 45T	60	60T	N/A								
Scanning dB:	N/A 4	3.0 43.0	51.0	51.0	N/A								
Indication(s):	Yes 🗌	No 🖌		Scar	n Coverage:	Above	4	Below	\checkmark	CW E	~	CCW	¥
Indication(s): Comments See attached p	Yes 🗌	No 🗹		Scar	n Coverage:	Above		Below	V	cw (2	CCW	Y
Indication(s): Comments See attached p Results:	Yes 🗌 ages for obstructions and I NRI 🔽	No 🗹 Imitations. RI 🗌	Geom	Scar	n Coverage:	Above		Below	Y	CW (2	ccw	V
Indication(s): Comments See attached p Results: Peruent of Covers	Yes ages for obstructions and I NRI 🕑 age Obtained > 90%:	No 🗹 Imitations. RI 🗌 No	Geom 🗌	Scar	n Coverage:	Above Reviewed F	₩ Trevious i	Below Data:	▼ <u>Yes</u>	CW [2	CCW	V
Indication(s): Comments See attached p Results: Pervent of Cover Examiner	Yes ages for obstructions and I NRI age Obtained > 90%: Level II-PDI	No Imitations. RI No Signature	Geom 🗌	Scar Exam Date	n Coverage: Reviewer	Above Reviewed F	Y Previous I	Below Data:	Yes gnature	CW (2	CCW	Y
Indication(s): Comments See attached p Results: Percent of Coven Examiner Zoliner, Briar	Yes ages for obstructions and I NRI V aye Obtained > 90%: Level II-PDI	No V Imitations. RI	Geom 🗌	Scar Exam Date 1/10/2022	n Coverage: Reviewer N/A	Above Reviewed P	✓	Below Data: Sig	Yes gnature	cw 6	2	CCW	V
Indication(s): Comments See attached p Results: Peruent of Covers Examiner Zollner, Briar Examiner	Yes ages for obstructions and I NRI V aye Obtained > 90%: Level II-PDI	No V Imitations. RI No Signature	Geom []	Exam Date Exam Date Exam Date	n Coverage: Reviewer N/A Site Review	Above Reviewed F	Previous I	Below Deta: Sig	Yes gnature	cw 6	2	cow	V
Indication(s): Comments See attached p Results: Percent of Cover Examiner Zollner, Briar Examiner Fish, Edward	Yes ages for obstructions and I NRI V aye Obtahed > 90%: Level II-PDI Level II-PDI	No V Imitations. RI D No Signature	Geom []	Scar Exam Date 1/10/2022 Exam Date 1/10/2022	Reviewer N/A Site Review Rovyman	Above Reviewed F	Previous I	Below Data: Sit	Yes gnature anature	CW B	Sta	cow	▼
Indication(s): Comments See attached p Results: Percent of Owen Examiner Zollner, Briar Examiner Fish, Edward Other	Yes ages for obstructions and I NRI V aye Obtaheed > 90%: Level II-PDI Level II-PDI	No V Imitations. RI	Geom []	Exam Date L/10/2022 Exam Date L/10/2022 Date	Reviewer N/A Site Review Raymond	Above Reviewed F	revious l	Deta:	Yes gnature gnature	CW B	Sta	cow	v

Serial No. 25-152 Docket No. 50-280 Attachment 2, Page 5 of 10

Figure 2-2



Figure 2-2 (continued)



Figure 2-2 (continued)

Dominion Energy

UT Vessel Examination

										Outag	ge No.	: S1R	\$1	
Site/Unit:	<u>SPS</u> /	1		Procedures	ER-AA-NDE	-UT-702			_	En	t / Per	5/3	1	
Summary No.:	S1.B2.12.002			Procedure Rev.:	7					Repo	et No.	: ISI-:	1-UT-22	-036
Workscope:	ISI			Work Order No.:	382042912	76/22-00	02				Page	: 1		of 3
Code:	ASME XI, 2004Ed		Ca	t./Item: <u>B-B/B2.12</u>	1		_ Location	: PZ	R 47					
brawing No.:	11448-WMKS-RC-	E-2		Description: LON	IG SHELL TO H	EAD WELD)							
System ID:	RC								Mat	erial: Ca	rbon 5	iteel		
Component ID:	11448-WMKS-RC-	E-2 / 1-15			Size/Length	2.00"	/ 12.0"		Thicknes	s/Diameter:	4	.375" /	92.375"	
Limitations:	YesRing Support	L					Start Time:	1044			Finis	sh Time:	1251	
Summination Conf	non Indda				Surface	Conditions	Ground	Flueb						
xamination sun	ace: Inside		Outside []		Surrace	Condition:	diodila	riusii						_
to Location: C/L	of Manway		Wo Location: We	d Centerline	(couplant:Sou	undsafe			Batch No	h.: 218	E016		
Temp. Tool Mfg.:	SEALED UNIT		Serial No.:	4030900376				Surface	Temp.: 69	•		_ of:		
Cal. Report No.:	ISI-1-CA-22-005	& ISI-1-CA-22	-006					_						
Angle Used:	0	45	45T	60	60T	N/A]							
Scanning dB:	N/A	43.0	43.0	51.0	51.0	N/A]							
Indication(s):	Yes [No	4		Scan Cov	erage:	Above	V	Below	1	CW	4	COW	V
Comments Examined long The long seam See attached p	seam weld located weld is obstructed f ages for obstruction	at 123.0" CCW or 6.0" due to s and limitatio	from pressuriz ring support st ns.	er manway. Inting at the intersed	tion with circu	mferentia	i weid (1-0	7).						
Results:	NRI 🔽	RI [icom 🗌										
Percent of Covers	age Obtained > 90%:	No					Reviewed	revious	uata:	Yes	_			
Examiner Zollner, Brian	Level II-PO	R	anature	Ex 11/10	m Date Revi	ewer			5	ägnature				

1/18/2022 Date Signature Examiner Level II-POL Exam Date Site Review Skinature 111 Stack 1 lay y 11/10/2022 Fish, Edward Roymond ANII Review 5 T. Stac Leven HI-PDI Signature Date Signature Other 11/2/22 11/10/2022 Cordes, Danny LIST NEZHARDSON



Figure 2-3 (continued)



Figure 2-3 (continued)

Serial No. 25-152 Docket No. 50-280

ATTACHMENT 3

RELIEF REQUEST S1-I5-LMT-C04 LIMITED EXAMINATION COVERAGE OF THE PRESSURIZER NOZZLE INNER RADIUS SECTION

VIRGINIA ELECTRIC POWER COMPANY (DOMINION ENERGY VIRGINIA) SURRY POWER STATION UNIT 1

Relief Request S1-I5-LMT-C04

Limited Examination Coverage of the Pressurizer Nozzle Inner Radius Section

Proposed Relief in Accordance with 10 CFR 50.55a(g)(5)(iii) Impractical ISI Code Requirements

1. ASME Code Components Affected

The Code components affected is the Class 1 pressurizer full penetration welded nozzle.

Weld No.:	20NIR
Drawing:	11448-WMKS-RC-E-2
ASME Class:	1
ASME Category:	8-D
ASME Item:	83.120
Description:	Pressurizer Nozzle Inner Radius Section

2. Applicable Code Edition and Addenda

2004 Edition of American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code, Section XI

3. Applicable Code Requirement

The 2004 Edition of ASME Section XI does not require examination of Class 1 Nozzle Inner Radius (NIR) Sections.

Title 10, Code of Federal Regulations Part 50.55a(b)(2)(xxi) conditions the requirements of ASME Section XI Table IW8-2500-1, Examination Category 8-D. The condition mandates that the 1998 Edition of Section XI be used which requires examination of the pressurizer nozzle inner radius-Item No. 83.120. Either an ultrasonic or enhanced visual examination from the ID (inner diameter) shall be performed.

4. Impracticality of Compliance

The pressurizer is covered with an insulation support ring (Figure 3-1). As can be seen, the support ring interferes with completion of a full volumetric examination around the circumference of the 20NIR, nozzle leading to a pressurizer safety valve. The examination was further limited by a surface indentation which did not allow for adequate probe contact. Figure 3-2 contains the examination report detailing the examination coverage obtained for weld 20NIR.

5. Burden Caused by Compliance

Total removal of the support ring at the mechanical connections is considered impractical due to the extremely high dose rates in the pressurizer area. Furthermore, this is not a viable effort when considering consequential disturbance of interconnected cross supports and the welded connections to safety and power operation relief valve supports. Any removal of the mechanical connections or forced spreading apart of components would create a risk of misalignment and possibly warp the structure. Civil engineering proposed that cutting the support could be necessary for removal, which would destroy the support ring.

6. <u>Proposed Alternative and Basis for Use</u>

Component 20NIR was ultrasonically examined using an NOE procedure that incorporates Electric Power Research Institute (EPRI) modeling report IR-2012- 485 specific to the Surry Power Station (SPS) Unit 1 pressurizer safety/relief nozzles. This modeling report details the required ultrasonic scan parameters which should be applied to achieve full coverage of the examination volume. Modeling report IR-2012-485 requires a combination of ultrasonic scanning both from the nozzle blend region and the pressurizer vessel head. Different transducer angles, skews and wedge contours were used for the required scans. The prior ultrasonic examination performed during the fourth ISI interval consisted of only scanning from the nozzle blend region; scanning was not required from the vessel head. Most of the documented limitations (86.65%) occurred in the region on the vessel head which was previously not scanned.

No additional ultrasonic examination techniques would provide meaningful additional data on this cladded material for the examination volume not attained. The pressurizer receives a visual (VT-2) examination every refueling outage as required by Section XI, Table IWB-2500-1, Category 8-P for Class 1 components performed at normal operating pressure and temperature. Any effort to achieve greater coverage would be impractical,

creating risk for component damage or destruction and excessive personnel dose exposure.

The 20NIR nozzle inner radius section is located at the top of the pressurizer. During plant operations, this location is subjected to a relatively constant temperature with the primary temperature fluctuations being associated with reactor heat up and cooldown. Those fluctuations are controlled for the thermal effects on components. Further, the nozzle inner radius sections are not welds but cast material components. There have been no known through wall flaws in class 1 nozzle inner radius section components. Similar SPS Unit 1 pressurizer nozzle inner radius section 19NIR was examined on October 26, 2016 during the fifth interval; greater than 90% coverage was obtained with no indications.

SPS also has Technical Specifications (TS) requirements for monitoring leakage from the reactor coolant system (RCS).

Dominion Energy Virginia concludes that the scanning percentage coverage obtained (86.65% for weld 20NIR), the VT-2 examination of the pressurizer conducted every refueling outage to detect evidence of leakage, and the TS surveillance requirements for RCS leakage monitoring provide reasonable assurance of structural integrity.

7. Duration of Proposed Alternative

This proposed alternative is requested to meet requirements for the fifth tenyear inspection interval for SPS Unit 1, which began December 14, 2013, and ended on June 13, 2024.



Figure 3-1

Dominion							
Site/Unit:	Surry / 1		Procedure:	ER-AA-NDE-UT-705	Outage No.: S1R28		
Summary No.:	S1.B3.120.003		Procedure Rev.:	1	Report No.: UT-18-035		
Workscope:	ISI		Work Order No.:	38103797043/NDER18-002	Page: 1 of	2	
Code:	ASME XI 2004	Cat./Item:	B-D/B3.120	Location:	PZR 47		
Drawing No.:	11448-WMKS-RC	-E-2	Description: NOZZLE	NNER RADIUS			
System ID: RC							
Component ID: 11448-	WMKS-RC-E-2 / 1-RC-2	ONIR		Size/Length: N/A	Thickness/Diameter: N/	A	
imitations: See at	tached scan limitation	sketch.		Start Time:	237 Finish Time: 23	09	
Examination Surface:	Inside 🗌 🛛 Ou	itside 🔽	Surface Condition: Ble	ended			
Lo Location: Ex	trados of DS Elbow	Wo Location:	Nozzle Center	Couplant: Soundsafe	Batch No.: 17D0	019	
Temp. Tool Mfg.:	SEALED UNIT	Serial No.:	4030900376	Surface Temp.: 84.3	۴		
Cal. Report No .:	CAL	-18-005, CAL-18-006, 0	CAL-18-007				
Angle / Skew 65°	/±14° 60° /+26° 60° / -26'	N/A / N/A					
Scanning dB 5	4 64 64	N/A					
Indication(s): Yes	No 🖌	Scan Covera	age: Bore 🗹 Vessel 🛛	CW 🗹 CCW 🗹			
Comments:							
None.							
			<i>c</i>				
Results:	NRI 🗹 🛛 RI 🗌	Geom _					
Percent Of Coverage	Obtained > 90%:	No F	Reviewed Previous Data:	Yes			
Examiner Level Timm, Jeremy	III-PDI	Signature	Date Review	BIECHINGERAN 1	Signature	5/8/	
Examiner Level	N/A	Signature	Date Site Re	view J T St V LV III	Signature	5/9/	
Other Level	N/A	Signature	Date ANII Re	view NO. C	Signature 5/14	De	

UT Inner Radius Examination

UT Inner Radius Examination

1222



The scan surfaces (blend and vessel) for 1-RC-20NIR were obstructed by the PZR Insulation Support Ring and also limited by a surface indentation which did not allow for adequate probe contact.

The total area of scanning surface is 580.32 in.². The total area of limited scanning is 77.43 in.². Total percentage limited = (77.43/580.32) x 100 = 13.34% Percentage of scan area scanned = 100% - 13.34% = 86.65%



Figure 3-2 (continued)