

VIRGINIA ELECTRIC AND POWER COMPANY
RICHMOND, VIRGINIA 23261
August 23, 2002

United States Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, DC 20555-0001

Serial No.: 02-472
LR/DWL: R0
Docket Nos.: 50-280/281
50-338/339
License Nos.: DPR-32/37
NPF-4/7

Gentlemen:

VIRGINIA ELECTRIC AND POWER COMPANY (DOMINION)
SURRY AND NORTH ANNA POWER STATIONS UNITS 1 AND 2
LICENSE RENEWAL APPLICATION
REQUEST FOR ADDITIONAL INFORMATION

In an October 22, 2001 letter, the NRC requested additional information associated with Section 2.1 of the license renewal applications (LRAs) for Surry and North Anna Power Stations. Dominion's letter dated February 1, 2002 (Serial No. 01-686A) provided the requested response. Supplemental information was also provided by letter dated May 22, 2002 (Serial No. 02-163). During conversations with the NRC on July 25, 2002, the staff requested additional details of information previously provided in response to Request for Additional Information (RAI) 2.1-3. The attachment to this letter contains the requested supplemental details.

Should you have any questions regarding this submittal, please contact Mr. J. E. Wroniewicz at (804) 273-2186.

Very truly yours,



Leslie N. Hartz
Vice President – Nuclear Engineering

Attachment

Commitments made in this letter: None

A086

cc:

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SN: 02-472
Docket Nos.: 50-280/281
50-338/339
Subject: License Renewal RAI

COMMONWEALTH OF VIRGINIA)
)
COUNTY OF HENRICO)

The foregoing document was acknowledged before me, in and for the County and Commonwealth aforesaid, today by Leslie N. Hartz, who is Vice President - Nuclear Engineering, of Virginia Electric and Power Company. She has affirmed before me that she is duly authorized to execute and file the foregoing document in behalf of that Company, and that the statements in the document are true to the best of her knowledge and belief.

Acknowledged before me this 23rd day of August, 2002.

My Commission Expires: March 31, 2004.



Notary Public



Attachment

**License Renewal Application – Supplemental Information
Regarding RAI 2.1-3**

Serial No. 02-472

**Surry Power Station Units 1 and 2
North Anna Power Station Units 1 and 2**

**Virginia Electric and Power Company
(Dominion)**

Supplemental Response to RAI 2.1-3:

By letter dated October 22, 2001, the NRC staff requested additional information regarding Criterion 2 systems, structures, and components (SSCs) as defined in 10 CFR 54.4(a)(2). Dominion responded to these requests in letters dated February 1, 2002 (Serial N. 01-686A) and May 22, 2002 (Serial No. 02-163). These previous submittals (in response to RAI 2.1-3, particularly) identified several plant systems at both Surry and North Anna that were added to the license renewal (LR) scope as a result of the re-evaluation of the 10 CFR Part 54 Criterion 2 requirements. The RAI responses also identified systems already in the scope of LR whose evaluation boundaries were expanded as a result of the revised Criterion 2 screening requirements.

In addition to identifying systems associated with the expanded LR scope, the previous responses also identified the credited aging management activities (AMAs) for each applicable material group, environment, and aging effects combinations for each of the identified systems. This information was provided on a system basis and was not broken down into the component groups as was done in the Aging Management Review (AMR) Results tables included in Section 3 of the License Renewal Applications (LRAs). No new material/environment combinations or aging management activities were identified as a result of the added scope.

The staff subsequently requested that Dominion provide the same level of detail that was provided in the LRA AMR Results tables for each of the additional systems (added as a result of the Criterion 2 expanded scope). That additional detail is provided with this response.

Each table provided in this response has an identifying number which begins with either an "S" or an "N" indicating its applicability to Surry or North Anna, respectively. These new tables have a number sequence that would be appropriate if they were being inserted into the existing LRAs as additional AMR Results tables. The intended functions are abbreviated as LSI, Limited Structural Integrity, as defined in the previous RAI response, and PB, Pressure Boundary.

Additional AMR Results Table Index:

Surry		North Anna	
System	Table No.	System	Table No.
Chilled Water (CD)	S3.3.3-8	Bearing Cooling (BC)	N3.3.3-7
Decontamination (DC)	S3.3.10	Gaseous Waste (GW)	N3.3.8-4
Liquid Waste (LW)	S3.3.11	Decontamination (DC)	N3.3.10
Extraction Steam (ES)	S3.4-8	Extraction Steam (ES)	N3.4-8
Water Treatment (WT)	S3.4-9		

Table S3.3.3-8 Closed Water Systems - Chilled Water: Additional Criterion 2 (Spatial Orientation) In-Scope Components

Component Group	Passive Function	Material Group	Environment	Aging Effects Requiring Management	Aging Management Activity	
Filter/Strainer, Pump, Tank	LSI; PB	Carbon Steel, Low-alloy Steel, and Cast Iron	(E) Air	Loss of Material	General Condition Monitoring Activities	
			(I) Treated Water/Steam	Loss of Material	Chemistry Control for Primary Systems	
					Work Control Process	
Valve	LSI; PB	Carbon Steel, Low-alloy Steel, and Cast Iron	(E) Air	Loss of Material	General Condition Monitoring Activities	
			(E) Borated Water Leakage	Loss of Material	General Condition Monitoring Activities	
				(I) Treated Water	Loss of Material	Chemistry Control for Primary Systems
						Work Control Process
Pipe	LSI; PB	Carbon Steel, Low-alloy Steel, and Cast Iron	(E) Air	Loss of Material	Infrequently Accessed Area Inspection Activities	
					General Condition Monitoring Activities	
			(E) Borated Water Leakage	Loss of Material	General Condition Monitoring Activities	
				(I) Treated Water	Loss of Material	Chemistry Control for Primary Systems
						Work Control Process
Heat Exchanger (Channel Head and Shell)	LSI; PB	Carbon Steel, Low-alloy Steel, and Cast Iron	(E) Air	Loss of Material	General Condition Monitoring Activities	
			(I) Treated Water	Loss of Material	Chemistry Control for Primary Systems	
					Work Control Process	

Table S3.3.3-8 (Cont.) Closed Water Systems - Chilled Water: Additional Criterion 2 (Spatial Orientation) In-Scope Components

Component Group	Passive Function	Material Group	Environment	Aging Effects Requiring Management	Aging Management Activity
Tubing, Instrument Valve Assembly, Valve	LSI; PB	Copper Alloys	(E) Air	Loss of Material	General Condition Monitoring Activities
			(I) Treated Water	Loss of Material	Chemistry Control for Primary Systems
					Work Control Process
Tubing, Instrument Valve Assembly	LSI; PB	Stainless Steel	(E) Air	Loss of Material	General Condition Monitoring Activities
			(I) Treated Water	Loss of Material	Chemistry Control for Primary Systems
					Work Control Process

Table S3.3.10 Decontamination Systems: Additional Criterion 2 (Spatial Orientation)In-Scope Components

Component Group	Passive Function	Material Group	Environment	Aging Effects Requiring Management	Aging Management Activity
Pipe	LSI; PB	Stainless Steel	(E) Air	Loss of Material	Infrequently Accessed Area Inspection Activities
					General Condition Monitoring Activities
			(I) Raw Water	Loss of Material	Work Control Process
Valve, Tubing, Instrument Valve Assembly	LSI; PB	Stainless Steel	(E) Air	Loss of Material	General Condition Monitoring Activities
			(I) Raw Water	Loss of Material	Work Control Process

Table S3.3.11 Liquid Waste Systems: Additional Criterion 2 (Spatial Orientation) In-Scope Components

Component Group	Passive Function	Material Group	Environment	Aging Effects Requiring Management	Aging Management Activity
Heat Exchanger (Shell)	LSI; PB	Stainless Steel	(E) Air	Loss of Material	General Condition Monitoring Activities
			(I) Treated Water	Loss of Material	Chemistry Control Program for Primary Systems
					Work Control Process
Heat Exchanger (Channel Head)	LSI; PB	Stainless Steel	(E) Air	Loss of Material	General Condition Monitoring Activities
			(I) Raw Water	Loss of Material	Work Control Process
Pipe	LSI; PB	Stainless Steel	(E) Air	Loss of Material	Infrequently Accessed Area Inspection Activities
					General Condition Monitoring Activities
			(I) Raw Water	Loss of Material	Work Control Process
Filter/Strainer, Flow Element, Restricting Orifice, Valve, Tubing, Instrument Valve Assembly	LSI; PB	Stainless Steel	(E) Air	Loss of Material	General Condition Monitoring Activities
			(I) Raw Water	Loss of Material	Work Control Process

Table S3.4-8 Steam and Power Conversion Systems - Extraction Steam: Additional Criterion 2 (Spatial Orientation) In-Scope Components

Component Group	Passive Function	Material Group	Environment	Aging Effects Requiring Management	Aging Management Activity
Pipe, Valve, Tubing, Instrument Valve Assembly	LSI; PB	Stainless Steel	(E) Air	Loss of Material	General Condition Monitoring Activities
			(I) Treated Water/Steam	Loss of Material	Chemistry Control Program for Secondary Systems
				Cracking (>140°F)	Chemistry Control Program for Secondary Systems
					Work Control Process
Filter/Strainer, Pipe, Trap, Valve	LSI; PB	Carbon Steel, Low-alloy Steel, and Cast Iron	(E) Air	Loss of Material	General Condition Monitoring Activities
			(I) Treated Water/Steam	Loss of Material	Chemistry Control Program for Secondary Systems
				Secondary Piping and Component Inspections	
				Work Control Process	
Valve, Tubing, Instrument Valve Assembly	LSI; PB	Copper Alloys	(E) Air	Loss of Material	General Condition Monitoring Activities
			(I) Treated Water/Steam	Loss of Material	Chemistry Control Program for Secondary Systems
				Work Control Process	

Table S3.4-9 Steam and Power Conversion Systems -Water Treatment: Additional Criterion 2 (Spatial Orientation) In-Scope Components

Component Group	Passive Function	Material Group	Environment	Aging Effects Requiring Management	Aging Management Activity
Pipe	LSI; PB	Stainless Steel	(E) Air	Loss of Material	General Condition Monitoring Activities
					Infrequently Accessed Area Inspection Activities
			(I) Treated Water	Loss of Material	Work Control Process
			(I) Raw Water (Potable water)	Loss of Material	Work Control Process
Valve	LSI; PB	Stainless Steel	(E) Air	Loss of Material	General Condition Monitoring Activities
			(I) Treated Water	Loss of Material	Work Control Process
			(I) Raw Water (Potable water)	Loss of Material	Work Control Process
Pipe, Valve	LSI; PB	Carbon Steel, Low-alloy Steel, and Cast Iron	(E) Air	Loss of Material	General Condition Monitoring Activities
			(I) Treated Water	Loss of Material	Work Control Process
Pipe, Valve	LSI; PB	Carbon Steel, Low-alloy Steel, and Cast Iron	(E) Air	Loss of Material	General Condition Monitoring Activities
			(I) Raw Water (Potable water)	Loss of Material	Work Control Process
Pipe, Valve	LSI; PB	Copper alloy	(E) Air	Loss of Material	General Condition Monitoring Activities
			(I) Raw Water (Potable water)	Loss of Material	Work Control Process

Table N3.3.3-7 Closed Water Systems – Bearing Cooling: Additional Criterion 2 (Spatial Orientation) In-Scope Components

Component Group	Passive Function	Material Group	Environment	Aging Effects Requiring Management	Aging Management Activity
Filter/Strainer, Pipe, Pumps, Tank, Valve	LSI; PB	Carbon Steel, Low-alloy Steel, and Cast Iron	(E) Air	Loss of Material	General Condition Monitoring Activities
			(I) Treated Water	Loss of Material	Chemistry Control for Secondary Systems
					Work Control Process
Valve, Tubing, Instrument Valve Assembly	LSI; PB	Copper Alloys	(E) Air	Loss of Material	General Condition Monitoring Activities
			(I) Treated Water	Loss of Material	Chemistry Control for Secondary Systems
					Work Control Process
Expansion Joint, Restricting Orifice, Tubing, Instrument Valve Assembly	LSI; PB	Stainless Steel	(E) Air	Loss of Material	General Condition Monitoring Activities
			(I) Treated Water	Loss of Material	Chemistry Control for Secondary Systems
					Work Control Process

Table N3.3.8-4 Vent and Gaseous Processing Systems – Gaseous Waste: Additional Criterion 2 (Spatial Orientation) In-Scope Components

Component Group	Passive Function	Material Group	Environment	Aging Effects Requiring Management	Aging Management Activity
Pipe	LSI; PB	Stainless Steel	(E) Air	Loss of Material	General Condition Monitoring Activities
					Infrequently Accessed Area Inspection Activities
			(I) Gas ¹	Loss of Material	Work Control Process
Valve, Tubing, Instrument Valve Assembly	LSI; PB	Stainless Steel	(E) Air	Loss of Material	General Condition Monitoring Activities
			(I) Gas ¹	Loss of Material	Work Control Process
Pipe	LSI; PB	Carbon Steel, Low-alloy Steel, and Cast Iron	(E) Air	Loss of Material	General Condition Monitoring Activities
					Infrequently Accessed Area Inspection Activities
			(E) Borated Water Leakage	Loss of Material	General Condition Monitoring Activities
			(I) Gas ¹	Loss of Material	Work Control Process
Valve	LSI; PB	Carbon Steel, Low-alloy Steel, and Cast Iron	(E) Air	Loss of Material	General Condition Monitoring Activities
			(E) Borated Water Leakage	Loss of Material	General Condition Monitoring Activities
			(I) Gas ¹	Loss of Material	Work Control Process
Tubing, Instrument Valve Assembly	LSI; PB	Copper Alloys	(E) Air	Loss of Material	General Condition Monitoring Activities
			(E) Borated Water Leakage	Loss of Material	General Condition Monitoring Activities
			(I) Gas ¹	Loss of Material	Work Control Process

¹ Relief valve operation has the potential to intermittently wet Gaseous Waste component internals

Table N3.3.10 Decontamination Systems: Additional Criterion 2 (Spatial Orientation) In-Scope Components

Component Group	Passive Function	Material Group	Environment	Aging Effects Requiring Management	Aging Management Activity
Pipe	LSI; PB	Stainless Steel	(E) Air	Loss of Material	Infrequently Accessed Area Inspection Activities
					General Condition Monitoring Activities
			(I) Raw Water	Loss of Material	Work Control Process
Valve, Tubing, Instrument Valve Assembly	LSI; PB	Stainless Steel	(E) Air	Loss of Material	General Condition Monitoring Activities
			(I) Raw Water	Loss of Material	Work Control Process

Table N3.4-8 Steam and Power Conversion Systems - Extraction Steam: Additional Criterion 2 (Spatial Orientation) In-Scope Components

Component Group	Passive Function	Material Group	Environment	Aging Effects Requiring Management	Aging Management Activity
Pipe, Valve, Tubing, Instrument Valve Assembly	LSI; PB	Stainless Steel	(E) Air	Loss of Material	General Condition Monitoring Activities
			(I) Treated Water/Steam	Loss of Material	Chemistry Control Program for Secondary Systems
					Work Control Process
					Cracking (>140°F)
Work Control Process					
Pipe, Trap, Valve	LSI; PB	Carbon Steel, Low-alloy Steel, and Cast Iron	(E) Air	Loss of Material	General Condition Monitoring Activities
			(I) Treated Water/Steam	Loss of Material	Chemistry Control Program for Secondary Systems
					Work Control Process
					Secondary Piping and Component Inspections
Valve, Tubing, Instrument Valve Assembly	LSI; PB	Copper Alloys	(E) Air	Loss of Material	General Condition Monitoring Activities
			(I) Treated Water/Steam	Loss of Material	Chemistry Control Program for Secondary Systems
					Work Control Process