

VIRGINIA ELECTRIC AND POWER COMPANY
RICHMOND, VIRGINIA 23261

January 4, 2002

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

Serial No.: 01-721
LR/MWH 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
REQUEST FOR ADDITIONAL INFORMATION
LICENSE RENEWAL APPLICATIONS

In a November 14, 2001 letter, the NRC requested additional information regarding the license renewal applications (LRAs) for Surry and North Anna Power Stations. The attachment to this letter contains the responses to the Requests for Additional Information (RAIs) associated with Sections 2.3.1 and 2.3.2 of the LRA.

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

Very truly yours,



David A. Christian
Senior Vice President – Nuclear Operations and Chief Nuclear Officer

Attachment

Commitments made in this letter: None

A086

cc:

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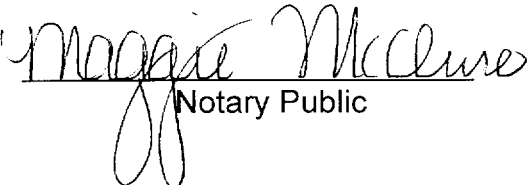
SN: 01-721
Docket Nos.: 50-280/281
50-338/339
Subject: License Renewal RAI

COMMONWEALTH OF VIRGINIA)
)
COUNTY OF HENRICO)

The foregoing document was acknowledged before me, in and for the County and Commonwealth aforesaid, today by David A. Christian who is Senior Vice President and Chief Nuclear Officer of Virginia Electric and Power Company. He has affirmed before me that he 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 his knowledge and belief.

Acknowledged before me this 4th day of January, 2002.

My Commission Expires: March 31, 2004.



Notary Public

(SEAL)

Attachment

**License Renewal – Response to RAI
Serial No. 01-721**

**Response to Request for Additional Information
Dated November 14, 2001
Surry and North Anna Power Stations, Units 1 and 2
License Renewal Applications
Sections 2.3.1 and 2.3.2**

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

RAI 2.3.1-1:

In both LRAs, Section 2.3.1, the applicant states that two concentric, hollow, metallic O-rings between the closure head flange and the reactor vessel flange form an inner and outer seal. Furthermore, it was stated in the UFSAR that leakage through the reactor vessel head flange will leak between the double O-ring seal to the leakoff provided. Leakage into this leakoff path will cause high temperature in this line, which will actuate an alarm in the control room. On the bases of the staffs experience with license renewal, the staff has generally concluded that the inner O-ring, the leakoff lines, and the outer O-ring all support the reactor vessel closure head flange pressure boundary. Although in select cases the staff has accepted a site-specific technical justification, in general, the leakoff lines require an aging management review. Please provide a site-specific technical justification for both NAS and SPS as to why aging management is not required, or perform an aging management review for these components.

Dominion Response:

As discussed in the UFSAR, the reactor vessel closure head and shell flanges are sealed by inner and outer hollow metallic o-rings. Any leakage through this seal arrangement is directed to the leakage detection system through 1/4" holes in the vessel flange. The leakage detection system consists of 1" tubes connected to the vessel flange that reduce to 3/8" tubing a short distance from the flange. These leak detection lines do not provide a license renewal intended function. Leakage flow past the inner o-ring is limited in the event of failure since the 1/4" diameter hole in the flange is smaller than the inside diameter of the leak detection line. Additionally, the potential flowrate through the 1/4" diameter hole in the flange is within the normal make-up capability of the charging system. Since the reactor vessel flange seal leakage detection function of these components does not meet the criteria of 10CFR54.4(a) as an intended function, the leak detection components are not within the scope of license renewal.

The license renewal drawings referenced in the application (11448-LRM-086A, sh. 1 and 11548-LRM-086A, sh. 1 for Surry and 11715-LRM-093A, sh. 1 and 12050-LRM-093A, sh. 1 for North Anna) incorrectly indicate that leak detection components are within the scope of license renewal. As described above, these components are not within scope. The affected license renewal drawings will be revised consistent with this conclusion.

RAI 2.3.2.4-1:

It was stated in the UFSAR that a modified design incorporating vortex suppressing devices was developed so that the containment sump will be free of any harmful vortices for any postulated operating conditions. The modifications made to the sump involved the installation of two layers of floor grating in the sump and the installation of perforated vortex breakers inside the cylindrical screens (Sections 3A.79 and 6.2.2.4.3 of the North Anna UFSAR). These components do not appear to have been described in the LRA, and are not included within the scope of license renewal. The staff requests that the applicant provide a technical justification for its exclusion, or that the applicant submit an aging management review for these components. In addition, if similar components (screens/vortex suppressors) are employed inside tanks at pump suction lines, then the applicant should also identify those components, and submit an AMR for those components.

Dominion Response:

The perforated vortex breakers were considered an integral part of the cylindrical sump screens since they are constructed of the same material and exposed to the same environment as the sump screens. Applicable aging effects for the cylindrical sump screens (including the perforated vortex breakers) are managed by the Infrequently Accessed Area Inspection Activity as indicated in Table 3.2-3 of the license renewal application.

The two layers of floor grating installed in the sump function as vortex suppressors and will be included in the scope of License Renewal. These vortex suppressors are subject to loss of material and this aging effect will be managed by the Infrequently Accessed Area Inspection Activity.

A review of Surry and North Anna tanks has concluded that there are no other vortex suppression devices installed at pump suction lines that should be included within the scope of license renewal.