

May 24, 2002

Mr. David A. Christian
Sr. Vice President - Nuclear
Virginia Electric and Power Company
Innsbrook Technical Center
Glen Allen, Virginia 23060

SUBJECT: SURRY POWER STATION UNIT 2 - SUMMARY OF CONFERENCE CALL
REGARDING STEAM GENERATOR INSPECTION (TAC NO. MB4773)

Dear Mr. Christian:

The purpose of this letter is to document our conference call with Virginia Electric and Power Company (VEPCO) on April 17, 2002. The purpose of that call was for VEPCO to inform NRC staff of the results of steam generator tube inspection at Surry Unit 2 during the spring 2002 refueling outage. A summary of the conference call is provided as Enclosure 1. An inspection work scope provided by VEPCO to facilitate the discussion is provided as Enclosure 2. A list of participants in the call is included as Enclosure 3.

This completes our effort under TAC No. MB4773 and the TAC is closed.

If you have any questions, please call me at (301) 415-1448.

Sincerely,

/RA/

Gordon E. Edison, Senior Project Manager, Section 1
Project Directorate II
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Enclosures: As stated

Docket No. 50-281

cc w/ encl: See next page

May 24, 2002

Mr. David A. Christian
Sr. Vice President - Nuclear
Virginia Electric and Power Company
Innsbrook Technical Center
Glen Allen, Virginia 23060

SUBJECT: SURRY POWER STATION UNIT 2 - SUMMARY OF CONFERENCE CALL
REGARDING STEAM GENERATOR INSPECTION (TAC NO. MB4773)

Dear Mr. Christian:

The purpose of this letter is to document our conference call with Virginia Electric and Power Company (VEPCO) on April 17, 2002. The purpose of that call was for VEPCO to inform NRC staff of the results of steam generator tube inspection at Surry Unit 2 during the spring 2002 refueling outage. A summary of the conference call is provided as Enclosure 1. An inspection work scope provided by VEPCO to facilitate the discussion is provided as Enclosure 2. A list of participants in the call is included as Enclosure 3.

This completes our effort under TAC No. MB4773 and the TAC is closed.

If you have any questions, please call me at (301) 415-1448.

Sincerely,

/RA/

Gordon E. Edison, Senior Project Manager, Section 1
Project Directorate II
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Enclosures: As stated

Docket No. 50-281

cc w/ encl: See next page

DISTRIBUTION:

PUBLIC	LLund	EDunnington	OGC	BFu	KKarwoski
PDII-1 R/F	ASmith	KLandis, RII	ACRS	CLauron	Mlessor
HBerkow	GEEdison	JTsao	CKhan	GMcCoy	

DOCUMENT NAME: C:\ORPCheckout\FileNET\ML021440045.wpd
Accession Number: ML021440045(Letter)

OFFICE	PM:PDII-1	LA:PDII-2	SC:PDII-1
NAME	GEEdison	EDunnington	JNakoski
DATE	05/22/02	05/22/02	05/22/02

OFFICIAL RECORD COPY

SUMMARY OF CONFERENCE CALL
WITH VIRGINIA ELECTRIC AND POWER COMPANY
REGARDING THE REFUELING OUTAGE STEAM GENERATOR INSPECTION RESULTS AT
SURRY UNIT 2

The NRC staff participated in a conference call with Virginia Electric & Power Company (VEPCO) on April 17, 2002. The purpose of the conference call was to discuss the steam generator (SG) inspection results from the Spring 2002 refueling outage at Surry Unit 2. At the time of the call, the licensee had completed the SG inspection.

Topics discussed during this call included the inspection scope, the eddy current data analysis results, plugging and repair plans and actions taken in response to the Indian Point Unit 2 (IP2) tube rupture event and NRC Information Notice 2000-02 (IN 2002-02), "Recent Experience with Plugged Steam Generator Tubes." The details of the inspection scope are contained in the inspection summary VEPCO provided in support of this call. In addition to the information presented in the summary, the inspection scope included a visual inspection of all the plugs in the "A" SG and the search for and removal of loose parts in all SGs.

The licensee plugged one tube as the result of 23% through-wall anti-vibration bar (AVB) wear. Although the licensee's technical specification plugging limit is 40% through-wall, the licensee uses an administrative through-wall percentage of 30%. Accounting for this administrative criterion and factoring in the growth rate of the indication combined with the planned operating interval between inspections, the licensee elected to plug this tube.

In addition to AVB wear, the licensee identified minor denting at the 6th and 7th tube support plates (TSPs). The voltages of these dents ranged from 2 to 8 volts. The licensee characterized these dents as minor because a nominal-sized probe passed through the dented tubes without difficulty. The staff inquired about the licensee's technique for determining the existence of flaws within tube dents. The licensee indicated that a dent is deemed free of defects if two consecutive inspections (with bobbin and/or rotating pancake coil (RPC) probe) provide data that the dent indication has not changed or that a flaw indication cannot be confirmed with an RPC probe. The licensee further explained that if the voltage of a dent indication changes by ¼ volt as measured with a bobbin probe, then the licensee further examines that indication with an alternate probe such as an RPC probe. The licensee expressed confidence in this criterion and stated that most of the dents have been inspected with an RPC probe, which should detect flaws within these dents, and that the chances are remote that circumferential flaws would develop because the dent sizes are small. The staff acknowledged the licensee's explanation, but informed the licensee of industry experience with the existence of axial and circumferential flaws within arrested dents (i.e., dents with stable voltages).

In previous outages, the licensee identified pit indications in the "A" and "C" SGs on the cold-leg, above the tube sheet secondary face. The licensee inspected a sample of 200 tubes located in the cold-leg, ± 1 inch from the top of tube sheet transition. The licensee did not identify additional pit-like indications.

The staff requested the licensee to provide information on the performance of other inspection activities related to SG integrity. The following table summarizes the licensee's response to this request.

Inspection Activity	Assessment
Primary to Secondary Leakage	None
Secondary-Side Hydrostatic Testing	None
New Inspection Findings	None
X-probe Usage	None
In-Situ Pressure Testing	None
Tube Pulls	None
Condition Monitoring	Tube integrity met
Operational Assessment for Next Cycle	Tube integrity maintained

Because the licensee did not identify any primary-to-secondary leakage, secondary-side hydrostatic testing was not required. In addition, the licensee did not identify new inspection findings or significant indications that warranted in-situ pressure testing or pulling tubes for destructive examination. In terms of overall SG tube integrity, the licensee indicated that their evaluations demonstrate the preservation of tube integrity for the next operating cycle.

Based on the information provided during the conference call, the staff did not identify any issues requiring further discussion.

Participants in Conference Call with VEPCO on April 17, 2002
to Discuss Steam Generator Inspection
at Surry Unit 2

<u>Name</u>	<u>Organization</u>
G. Edison	NRC
A. Smith	NRC
J. Tsao	NRC
B. Fu	NRC
C. Lauron	NRC
C. Khan	NRC
K. Karwoski	NRC
M. Lesser	NRC
G. McCoy	NRC
G. Miller	VEPCO
L. Spain	VEPCO
J. Eastwood	VEPCO
D. Dodson	VEPCO
E. Brennan	VEPCO
R. Beger	VEPCO
B. Garber	VEPCO

Mr. David A. Christian
Virginia Electric and Power Company

cc:

Ms. Lillian M. Cuoco, Esq.
Senior Nuclear Counsel
Dominion Nuclear Connecticut, Inc.
Millstone Power Station
Building 475, 5th Floor
Rope Ferry Road
Rt. 156
Waterford, Connecticut 06385

Mr. Richard H. Blount, II
Site Vice President
Surry Power Station
Virginia Electric and Power Company
5570 Hog Island Road
Surry, Virginia 23883-0315

Senior Resident Inspector
Surry Power Station
U. S. Nuclear Regulatory Commission
5850 Hog Island Road
Surry, Virginia 23883

Chairman
Board of Supervisors of Surry County
Surry County Courthouse
Surry, Virginia 23683

Dr. W. T. Lough
Virginia State Corporation
Commission
Division of Energy Regulation
P. O. Box 1197
Richmond, Virginia 23209

Robert B. Strobe, M.D., M.P.H.
State Health Commissioner
Office of the Commissioner
Virginia Department of Health
P.O. Box 2448
Richmond, Virginia 23218

Surry Power Station

Office of the Attorney General
Commonwealth of Virginia
900 East Main Street
Richmond, Virginia 23219

Mr. Stephen P. Sarver, Director
Nuclear Licensing & Operations Support
Innsbrook Technical Center
Virginia Electric and Power Company
5000 Dominion Blvd.
Glen Allen, Virginia 23060-6711

Mr. David A. Heacock
Site Vice President
North Anna Power Station
Virginia Electric and Power Company
P. O. Box 402
Mineral, Virginia 23117-0402

Mr. William R. Matthews
Vice President - Nuclear Operations
Virginia Electric and Power Company
Innsbrook Technical Center
5000 Dominion Boulevard
Glen Allen, Virginia 23060-6711