

October 25, 2002

Mr. David A. Christian
Sr. Vice President and Chief Nuclear Officer
Virginia Electric and Power Company
5000 Dominion Blvd.
Glen Allen, Virginia 23060

SUBJECT: NORTH ANNA POWER STATION, UNITS 1 AND 2, AND SURRY POWER STATIONS, UNITS 1 AND 2 - REQUEST FOR ADDITIONAL INFORMATION ON VIRGINIA ELECTRIC AND POWER COMPANY'S RELOAD NUCLEAR DESIGN METHODOLOGY TOPICAL REPORT VEP-FRD-42 (TAC NOS. MB3141, MB3142, MB3151, AND MB3152)

Dear Mr. Christian:

The purpose of this letter is to request additional information regarding the analytical models that are used in Topical Report VEP-FRD-42, Revision 2, "Reload Nuclear Design Methodology," submitted for staff approval by letter dated October 8, 2001, by Virginia Electric and Power Company (VEPCO).

VEPCO had requested approval of this topical report to allow the North Anna and Surry Power Stations, Units 1 and 2, to utilize either Westinghouse or Framatome-ANP fuel. The staff's safety evaluation dated July 29, 1986, had restricted the applicability of VEP-FRD-42, Revision 1-A, to only Westinghouse-supplied reloads.

The analytical methods section of Topical Report VEP-FRD-42, Revision 2, included a discussion of four computer codes that VEPCO revised under the provisions of Title 10 of the *Code of Federal Regulations* Section 50.59. These codes are the PDQ Two Zone, NOMAD, RETRAN, and TIP/CECOR codes. The topical reports for the prior versions of these codes were reviewed and approved by the NRC staff, and are referenced in VEP-FRD-42, Revision 1-A dated September 1986. VEPCO had requested staff approval of later revisions of these codes through 1996, but these actions were not completed.

Topical Report VEP-FRD-42 is referenced in the Core Operating Limits Report (COLR) sections of the North Anna Improved Technical Specifications (ITS) and Surry Technical Specifications. Generic Letter 88-16, "Removal of Cycle-Specific Parameter Limits From Technical Specifications," requires that limits in a COLR be calculated using an NRC-approved methodology. Therefore, VEP-FRD-42, Revision 2, including the analytical methods that are described within this topical report, must be approved by the staff prior to their use. This is also consistent with North Anna ITS Section 5.6.b that requires the analytical methods described in Topical Report VEP-FRD-42, which are used to determine the core operating limits, be reviewed and approved by the NRC.

While conducting a review of the PDQ Two Zone, NOMAD, RETRAN, and TIP/CECOR codes, the NRC staff located the latest revisions that will be reviewed. VEPCO is requested to confirm

that the submittals listed below are the latest revisions for these codes that have not received NRC staff approval.

1. PDQ - The staff will review Topical Report VEP-NAF-1, July, 1990, submitted in a letter from VEPCO to NRC dated October 1, 1990.
2. NOMAD - The staff will review Topical Report VEP-NFE-1A, Supplement 1, September 1996, submitted in a letter from VEPCO to NRC dated November 11, 1996.
3. TIP/CECOR - The staff will review Topical Report VEP-NAF-2, November 1991, submitted in a letter from VEPCO to NRC dated December 20, 1991.
4. RETRAN - The staff will review the information submitted in a letter from VEPCO to NRC dated August 10, 1993. The information provided in this submittal was only applicable for North Anna, Units 1 and 2.

Since the NRC staff does not have the RETRAN model submittal for Surry Power Station, Units 1 and 2, VEPCO is requested to provide the submittal that contains the latest revision to this model. The NRC staff requests a response to this request for additional information within 45 days of the date of this letter.

Sincerely,

/RA

/RA/

Stephen R. Monarque, Project Manager
Project Directorate II, Section 1
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

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

Docket Nos. 50-280, 50-281, 50-338, and 50-339

October 25, 2002

that the submittals listed below are the latest revisions for these codes that have not received NRC staff approval.

1. PDQ - The staff will review Topical Report VEP-NAF-1, July, 1990, submitted in a letter from VEPCO to NRC dated October 1, 1990.
2. NOMAD - The staff will review Topical Report VEP-NFE-1A, Supplement 1, September 1996, submitted in a letter from VEPCO to NRC dated November 11, 1996.
3. TIP/CECOR - The staff will review Topical Report VEP-NAF-2, November 1991, submitted in a letter from VEPCO to NRC dated December 20, 1991.
4. RETRAN - The staff will review the information submitted in a letter from VEPCO to NRC dated August 10, 1993. The information provided in this submittal was only applicable for North Anna, Units 1 and 2.

Since the NRC staff does not have the RETRAN model submittal for Surry Power Station, Units 1 and 2, VEPCO is requested to provide the submittal that contains the latest revision to this model. The NRC staff requests a response to this request for additional information within 45 days of the date of this letter.

Sincerely,
/RA/

/RA/

Stephen R. Monarque, Project Manager
Project Directorate II, Section 1
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

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

Docket Nos. 50-280, 50-281, 50-338, and 50-339

DISTRIBUTION:

PUBLIC	GEEdison (paper copy)	PDII-1 R/F	DMcCain
RidsNrrDlpmLpdii	MKowal, SRXB	EDunnington (paper copy)	
RidsOGCRp	RidsAcrsAcnwMailCenter	SMonarque	RidsRgn2MailCenter
FAkstulewicz	KOrr	UShoop	

*Previously concurred

OFFICE	LA:PDII/S2	PM:PDII/S1	PM:PDII/S1	SC:SRXB	SC:PDII/S1
NAME	EDunnington	SMonarque	GEEdison	FAkstulewicz*	JNakoski
DATE	10/23/02	10/23/02	10/24/02	10 /17 /02	10/24/02
COPY	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No

OFFICIAL RECORD COPY

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

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

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. C. Lee Lintecum
County Administrator
Louisa County
P.O. Box 160
Louisa, Virginia 23093

Old Dominion Electric Cooperative
4201 Dominion Blvd.
Glen Allen, Virginia 23060

Senior Resident Inspector
North Anna Power Station
U.S. Nuclear Regulatory Commission
1024 Haley Drive
Mineral, Virginia 23117