



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

June 15, 2011

Mr. David A. Heacock
President and Chief Nuclear Officer
Virginia Electric and Power Company
Innsbrook Technical Center
5000 Dominion Boulevard
Glen Allen, VA 23060-6711


SUBJECT: NORTH ANNA POWER STATION, UNIT NOS. 1 AND 2, REQUEST FOR
ADDITIONAL INFORMATION (TAC NOS. ME4262 AND ME4263)

Dear Mr. Heacock:

By license amendment request (LAR) dated July 19, 2010 (Reference 1), Virginia Electric and Power Company (Dominion) proposed modifications to the Technical Specifications for the North Anna Power Station to include the report DOM NAF-2-A, Appendix C, "Qualification of the Westinghouse WRB-2M Critical Heat Flux Correlation in the Dominion VIPRE-D Computer Code," to the TS 5.6.5.b list of approved methodologies. The LAR also requested approval of the statistical design limit for the relevant code/correlation pair. On September 9, 2010, Dominion responded to acceptance review questions (Reference 2). On January 26, 2011, Dominion responded to 12 further questions (Reference 3). On May 16, 2011, Dominion submitted a letter making corrections to earlier provide information (Reference 4).

The U.S. Nuclear Regulatory Commission staff is reviewing Dominion's submittals listed above and has determined that additional information as identified in the enclosure is needed in order to continue its review. We request that a response be provided within 30 days of the date of this letter.

Sincerely,


Robert E. Martin, Senior Project Manager
Plant Licensing Branch II-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket Nos. 50-338 and 50-339

Enclosure:
Request for Additional Information

cc w/encl: Distribution via Listserv

REQUEST FOR ADDITIONAL INFORMATION REGARDING THE ADDITION OF
ANALYTICAL METHODOLOGY TO THE TECHNICAL SPECIFICATIONS FOR
VIRGINIA ELECTRIC AND POWER COMPANY (DOMINION)
NORTH ANNA POWER STATION, UNIT NOS. 1 AND 2 (NAPS)
DOCKET NOS. 50-338 AND 50-339

The U.S. Nuclear Regulatory Commission (NRC) staff is reviewing Dominion's submittals listed as References 1 – 4 below, related to Qualification of the Westinghouse WRB-2M Critical Heat Flux (CHF) Correlation in the Dominion VIPRE-D Computer Code for the NAPS, and has determined that the following information is needed in order to continue its review:

1. Based on the guidance specified in Generic Letter 88-16, (GL 88-16), each approved methodology listed in technical specifications (TSs) Section 5.6.5.b should support a calculation for a cycle-specific core operating limit in TS Section 5.6.5.a. In other words, the methodologies listed should identify their supporting role for the cycle-specific parameters in order to be listed in TS section 5.6.5.b.
 - a. Explain why no date of approval and use of the approved methodologies are proposed for TS Section 5.6.5.b.
 - b. For each approved methodology listed in TS Section 5.6.5.b, identify the cycle-specific parameter listed in TS Section 5.6.5.a that relates to a real application to the current reload analysis.
 - c. Provide justification that all the proposed methodologies meet the guidance of GL 88-16 to be listed in TS Section 5.6.5.b.
2. It appears that DOM-NAF-2, Rev. 0.1-A, Appendix C, "Qualification of the Westinghouse WRB-2M CHF Correlation in the Dominion VIPRE-D Computer Code," is an approved code since it is part of approved document DOM-NAF-2, Revision 0.1-A (with Appendixes A, B, and C), "Reactor Core Thermal-Hydraulics Using the VIPRE-D Computer Code," dated July 2009.
 - a. Provide the rationale for requesting NRC review and approval of the implementation of the Dominion Topical Report VEP-NE-2A, "Statistical DNBR Evaluation Methodology" for Westinghouse RFA-2 fuel.
 - b. Provide in a flow chart or table a description of the relationship among DOM-NAF-2A, Appendix C to DOM-NAF-2A, and Statistical Design Limit (SDL) including their supporting role to each other.
 - c. Provide verification and validation data to show the applicability of DOM-NAF-2A to Westinghouse 17x17 RFA-2 fuel.

Enclosure

- d. Identify any deviations from the approved methodologies in the submittal dated July 19, 2010.
3. Describe the details of the deterministic design limits (DDLs) and the SDL including their definition, relationship, and applicability to the proposed technical specification change.
4. It appears that there are various SDLs and DDLs resulting from transient analysis. Describe how to apply these values to finalize the departure from nucleate boiling ratio for North Anna Unit 1 Cycle 23 and Unit 2 Cycle 23 operation.

References:

1. License Amendment Application from Virginia Electric and Power Company, July 19, 2010, to U.S. NRC Document Control Desk, Agencywide Documents Access and Management System (ADAMS), Accession No. ML102020165.
2. Letter responding to acceptance review requests for information, September 9, 2010, ADAMS ML102560291.
3. Letter responding to twelve requests for information, January 26, 2011, ADAMS Accession No. ML110270089.
4. Letter providing corrections to previously submitted information, May 16, 2011, ADAMS Accession No. ML111370137.

June 15, 2011

Mr. David A. Heacock
President and Chief Nuclear Officer
Virginia Electric and Power Company
Innsbrook Technical Center
5000 Dominion Boulevard
Glen Allen, VA 23060-6711

SUBJECT: NORTH ANNA POWER STATION, UNIT NOS. 1 AND 2, REQUEST FOR
ADDITIONAL INFORMATION (TAC NOS. ME4262 AND ME4263)

Dear Mr. Heacock:

By license amendment request (LAR) dated July 19, 2010 (Reference 1), Virginia Electric and Power Company (Dominion) proposed modifications to the Technical Specifications for the North Anna Power Station to include the report DOM NAF-2-A, Appendix C, "Qualification of the Westinghouse WRB-2M Critical Heat Flux Correlation in the Dominion VIPRE-D Computer Code," to the TS 5.6.5.b list of approved methodologies. The LAR also requested approval of the statistical design limit for the relevant code/correlation pair. On September 9, 2010, Dominion responded to acceptance review questions (Reference 2). On January 26, 2011, Dominion responded to 12 further questions (Reference 3). On May 16, 2011, Dominion submitted a letter making corrections to earlier provide information (Reference 4).

The U.S. Nuclear Regulatory Commission staff is reviewing Dominion's submittals listed above and has determined that additional information as identified in the enclosure is needed in order to continue its review. We request that a response be provided within 30 days of the date of this letter.

Sincerely,

/RA/

Robert E. Martin, Senior Project Manager
Plant Licensing Branch II-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket Nos. 50-338 and 50-339

Enclosure:
Request for Additional Information

cc w/encl: Distribution via Listserv

DISTRIBUTION:

Public	RidsNrrLAMO'Brien Resource	LPL2-1 R/F
RidsOgcRp Resouce	RidsNrrDorlLpl2-1 Resource	RidsNrrDssSrxs Resource
RidsRgn2MailCenter Resource	RidsAcrsAcnw_MailCTR Resource	RidsNrrDorlDpr Resource
THuang, NRR	RidsNrrPMNorthAnna Resource	

ADAMS Accession No. ML11165A024

*by memo dated 5/05/2011

OFFICE	NRR/LPL2-1/PM	NRR/LPL2-1/LA	NRR/DSS/SRXB	NRR/LPL2-1/BC	NRR/LPL2-1/PM
NAME	RMartin	MO'Brien (BTully for)	AUIses*	GKulesa	RMartin
DATE	06/14/11	06/15/11	05/05/11	06/15/11	06/15/11

OFFICIAL RECORD COPY