



UNITED STATES
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

May 12, 2009

Mr. David A. Christian
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 (RAI) REGARDING PROPOSED LICENSE AMENDMENT REQUEST TO ADOPT TSTF-490, "DELETION OF E BAR DEFINITION AND REVISION TO RCS [REACTOR COOLANT SYSTEM] SPECIFIC ACTIVITY" (TAC NOS. ME0264 AND ME0265)

Dear Mr. Christian:

By letter dated December 17, 2008, Virginia Electric and Power Company submitted a license amendment request to adopt TSTF-490, "Deletion of E Bar Definition and Revision to RCS Specific Activity," for North Anna Power Station, Unit Nos. 1 and 2. The proposed changes would replace the current Technical Specification 3.4.16 limit on RCS gross specific activity with a new limit on RCS noble gas specific activity. The noble gas specific activity limit would be based on a new dose equivalent XE-133 definition that would replace the current E Bar average disintegration energy definition.

The Nuclear Regulatory Commission staff discussed the draft RAI with your staff on April 30, 2009. Enclosed is the final RAI. Please provide a response within 30 days of the date of this letter. Please contact me at (301) 415-1864 if you have any questions.

Sincerely,

A handwritten signature in black ink, appearing to read "Donna N. Wright".

Donna N. Wright, 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:
RAI

cc w/encl: Distribution via Listserv

REQUEST FOR ADDITIONAL INFORMATION
REGARDING PROPOSED LICENSE AMENDMENT REQUEST
APPLICATION TO ADOPT TSTF-490
VIRGINIA ELECTRIC AND POWER COMPANY
NORTH ANNA POWER STATION, UNIT NOS. 1 AND 2
DOCKET NOS. 50-338 AND 50-339

By letter dated December 17, 2008, (Agencywide Documents Access and Management System Accession No. ML083530982) Virginia Electric and Power Company, (the licensee) submitted a license amendment request to adopt TSTF-490, "Deletion of E Bar definition and revision to RCS [Reactor Coolant System] specific activity," for North Anna Power Station, Unit Nos. 1 and 2 (North Anna 1 and 2). The Nuclear Regulatory Commission (NRC) staff has reviewed the information the licensee submitted and determined that the following additional information is required to complete the evaluation.

Proposed inserts 1 and 2 contained in the letter dated December 17, 2008, provide definitions for "dose equivalent I-131" (DEI) and "dose equivalent Xe-133" (DEX). These definitions indicate that DEI and DEX may be determined using several references for dose conversion factors (DCFs). However, the purpose of the limiting condition for operation (LCO) for DEI and DEX is to satisfy Title 10 of the *Code of Federal Regulations* (10 CFR), Part 50, Section 50.36, Criterion 2, which establishes an operating restriction that is an initial condition of a design basis accident (DBA). When surveillance of the RCS radionuclides is performed, each acceptable set of DCFs will yield a different DEI and DEX. As approved by the NRC staff, the intent of TSTF-490 was to allow the licensee to select, from the acceptable list, one DCF reference for the calculation of DEI, and one DCF reference for the calculation of DEX. Consistent with 10 CFR 50.36 and TSTF-490, the licensee should specify one DCF reference for each definition, which will be consistent with the specified LCO and DBA analysis, or justify why a list of several DCFs is consistent with the specified LCO and DBA analysis.

Therefore, please justify how the use of multiple DCFs maintains consistency with the specified LCO values and DBA analyses, or provide a revised definition that incorporates the DCFs appropriate for the North Anna 1 and 2 technical specifications.

Enclosure

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/RA/

Donna N. Wright, Project Manager
Plant Licensing Branch II-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket Nos. 50-338 and 50-339

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RAI

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ADAMS Accession No. ML091270692

*transmitted by memo dated

OFFICE	NRR/LPL2-1	NRR/LPL2-1/LA	NRR/AADB/BC	NRR/LPL2-1/BC
NAME	DWright	SRohrer	RTaylor	MWong (JThompson for)
DATE	5/12/09	5/12/09	4/30/09*	5/12/09

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