

Eugene S. Grecheck
Vice President
Nuclear Support Services

Dominion Energy • Dominion Generation
Innsbrook Technical Center
5000 Dominion Boulevard, Glen Allen, VA 23060
Phone: 804-273-2442, Fax: 804-273-3471
E-mail: Eugene_Grecheck@dom.com



Dominion™

May 12, 2008

U. S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, D. C. 20555

Serial No. NA3-08-044
Docket No. 52-017
COL/RAB

DOMINION VIRGINIA POWER
NORTH ANNA UNIT 3 COMBINED LICENSE APPLICATION
RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION LETTER NO. 003

On April 1, 2008, the NRC requested additional information to support the review of certain portions of the North Anna Unit 3 Combined License Application (COLA). The response to the following RAI is provided in Enclosure 1:

- RAI Question 02.03.04-1, Inputs for ARCON96 Atmospheric Dispersion Computer Code

The changes required as a result of this response will be incorporated into a future submission of the North Anna Unit 3 COLA.

Please contact Regina Borsh at (804) 273-2247 (regina.borsh@dom.com) if you have questions.

Very truly yours,

Eugene S. Grecheck

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NFO

Enclosure:

1. Response to RAI Letter Number 003 (RAI Question 02.03.04-1)

Commitments made by this letter:

1. Incorporate proposed changes in a future COLA submission.

COMMONWEALTH OF VIRGINIA

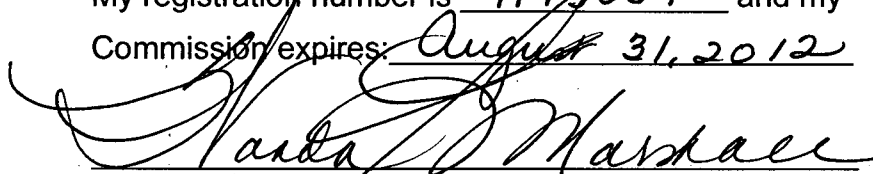
COUNTY OF HENRICO

The foregoing document was acknowledged before me, in and for the County and Commonwealth aforesaid, today by Eugene S. Grecheck, who is Vice President-Nuclear Development of Virginia Electric and Power Company (Dominion Virginia Power). He has affirmed before me that he is duly authorized to execute and file the foregoing document on behalf of the Company, and that the statements in the document are true to the best of his knowledge and belief.

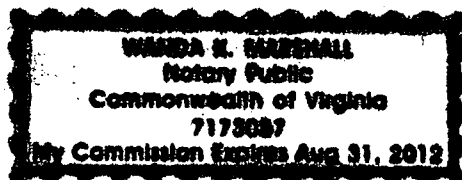
Acknowledged before me this 12th day of May, 2008

My registration number is 7173057 and my

Commission expires: August 31, 2012



Notary Public



cc: U. S. Nuclear Regulatory Commission, Region II
T. A. Kevern, NRC
J. T. Reece, NRC
J. J. Debiec, ODEC
G. A. Zinke, NuStart/Entergy
T. L. Williamson, Entergy
J. C. Kinsey, GEH
K. Ainger, Exelon

ENCLOSURE 1

Response to NRC RAI Letter No. 003

RAI Question 02.03.04-1

NRC RAI 02.03.04-1

Please list and describe the inputs used to execute the ARCON96 atmospheric dispersion computer code for each source-receptor combination (e.g., direction, distance, intake height, release height, building area, initial diffusion coefficients) to derive the control room and technical support center atmospheric dispersion factors (CHI/Q values) as presented in FSAR Tables 2.3-201 through 2.3-204.

Dominion Response

The North Anna control room and technical support center atmospheric dispersion factors (CHI/Q values) that are contained in Revision 0 of the FSAR are based on input values that are consistent with the ESBWR standard plant design in Revision 4 of the ESBWR DCD, with certain site-specific adjustments.

Currently, GEH is in the process of revising the CHI/Q input values for the ESBWR standard plant design. These inputs will be listed and described in ESBWR DCD Revision 5.

Dominion will use the revised input values that GEH provides in ESBWR DCD Revision 5 to execute the ARCON96 atmospheric dispersion computer code for North Anna Unit 3, with the following site-specific adjustments:

- The wind direction for each combination of accident source term release location and receptor location will be adjusted to account for the fact that Unit 3 plant North, as shown in FSAR, Revision 0, Figure 2.1-201 (which is the same as ESBWR plant North as shown in ESBWR DCD, Revision 4, Tier 1, Figure 2.16.5-1), is 23.54 degrees East of true North.
- The site-specific meteorological data was provided in the North Anna Early Site Permit Application Environmental Report (ESPA ER) Table 2.7-9.

COLA Impact

FSAR Table 2.0-201, Section 2.3.4, Figure 2.3-201, and Tables 2.3-201 through 2.3-204 will be revised to address the information in the new ESBWR DCD Appendix 2A and the results of the revised analyses with the new ARCON96 input values. Since GEH is still preparing Revision 5 of the ESBWR DCD, markups of the affected FSAR pages are not included in the response to this letter. The required changes and the addition of a new FSAR Appendix 2A with site-specific changes from a new ESBWR DCD Appendix 2A will be incorporated in a future submission of the North Anna Unit 3 COLA.