July 21, 2008

Mr. Eugene S. Grecheck
Vice President - Nuclear Development
Dominion
Innsbrook Technical Center
5000 Dominion Boulevard
Glen Allen, VA 23060-6711

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION LETTER NO. 019 (SRP SECTIONS: 02.03.05, 03.09.03, 05.03.01, and 14.03.10) RELATED TO THE NORTH ANNA UNIT 3 COMBINED LICENSE APPLICATION

Dear Mr. Grecheck:

By letter dated November 26, 2007, Dominion Virginia Power (Dominion) submitted a combined license application for North Anna Unit 3 pursuant to 10 CFR Part 52. The U. S. Nuclear Regulatory Commission (NRC) staff is performing a detailed review of this application.

The staff has identified that additional information is needed to continue portions of the review and the request for additional information (RAI) is contained in the enclosure to this letter. To support the review schedule, Dominion is requested to respond within 45 days of the date of this letter. If the RAI response involves changes to application documentation, Dominion is requested to include the associated revised documentation with the response.

Should you have questions, please contact me at (301) 415-0224 or Thomas.Kevern@nrc.gov.

Sincerely,

/RA/

Thomas A. Kevern, Senior Project Manager
ESBWR/ABWR Projects Branch 1
Division of New Reactor Licensing
Office of New Reactors

Docket No. 52-017

Enclosure:
Request for Additional Information

July 21, 2008

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Vice President - Nuclear Development
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Should you have questions, please contact me at (301) 415-0224 or Thomas.Kevern@nrc.gov.

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Thomas A. Kevern, Senior Project Manager
ESBWR/ABWR Projects Branch 1
Division of New Reactor Licensing
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Docket No. 52-017
Enclosure:
Request for Additional Information
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NAME	BHarvey*	CCox*	AJohnson*		TKevern *
DATE	06/12/2008	06/12/2008	07/05/2008		07/15/2008
OFFICE	TR:CIB2	BC:CIB2	PM:DNRL:NGE1	OGC (NLO)	PM:DNRL:NGE1
NAME	ABlack*	AHowe*	CPatel*	RHolmes*	TKevern *
DATE	07/02/2008	07/02/2008	07/11/2008	07/11/2008	07/15/2008
OFFICE	TR:NSIR/LIB	BC:NSIR/LIB	PM:DNRL:NGE1		PM:DNRL:NGE1
NAME	ERobinson*	KWilliams*	RFoster*		TKevern*
DATE	07/01/08	07/01/08	07/09/08		07/19/08
OFFICE	TR:EMB2	BC:EMB2	PM:DNRL:NGE1		PM:DNRL:NGE1
NAME	ALee*	JDixon-Herrity*	CPatel*		TKevern*
DATE	07/02/08	07/11/08	07/11/08		07/21/08

***Approval captured electronically in the electronic RAI system.**

OFFICIAL RECORD COPY

Request for Additional Information
North Anna, Unit 3
Dominion
Docket Number 52-017
SRP Sections: 02.03.05 - Long-Term Atmospheric Dispersion Estimates for Routine Releases; 03.09.03 - ASME Code Class 1, 2, and 3 Components; 05.03.01 - Reactor Vessel Materials; 14.03.10 - Emergency Planning - Inspections, Tests, Analyses, and Acceptance Criteria
Application: FSAR Sections 2.3.5, 3.9.3, and 5.3.1; Part 10 – ITAAC

QUESTIONS

02.03.05-2

FSAR Table 2.3-16R presents revised χ/Q and D/Q values for the residence, meat animal, and vegetable garden. Please clarify the following inconsistencies with corresponding information in the Environmental Report and revise the FSAR as appropriate.

a. FSAR Table 2.3-16R shows that the maximum D/Q value for the residence, meat animal, and vegetable garden receptors is 9.00E-09 $1/m^2$ in the ESE sector at 0.74 miles. This conflicts with the information shown in ER Table 2.7-4 which shows a higher D/Q for these receptors, 1.1E-08 $1/m^2$ in the NNE sector at 0.74 miles.
b. Please verify that the no-decay and 2.26-day decay χ/Q values presented in FSAR Table 2.3-16R are undepleted values and the 8-day decay χ/Q values are depleted values.
c. ER Table 2.7-4 includes a list of revised distances in each sector to the EAB. Please revise FSAR Table 2.3-15R to include this list of distances to the EAB.
d. Should the distances and directions to the highest EAB χ/Q and D/Q values as listed in FSAR Table 2.3-16R be consistent with the distances shown in ER Table 2.7-4?

02.03.05-3

FSAR Section 2.3.5, Long-Term (Routine) Diffusion Estimates, addresses X/Q and D/Q values. Please revise Section 2.3.5 to include X/Q and D/Q values out to 50 miles which are used to perform the population dose calculation for the radwaste system cost-benefit analysis required by Section II.D of Appendix I to Part 50.

03.09.03-1

In FSAR Section 3.9.3.7.1(3)e, the last two sentences at the end of the section are replaced with STD COL 3.9.9-4-A, which states “The inservice testing program for snubbers will be completed in accordance with milestones described in Section 13.4.” In Table 13.4-201 of the FSAR, the Inservice Testing Program is identified as the program to be implemented according to 10 CFR 50.55a(f) and ASME OM Code, with a milestone of “after generator online on nuclear heat.” Snubbers are not specifically identified in the table. Please explain how Table 13.4-201 would serve to assure that snubber inservice program is included in the generic IST program listed in the table.

03.09.03-2

In FSAR Section 3.9.3.7.1(3)f, the first sentence of this section is replaced with STD COL 3.9.9-4-A, which states: "A plant-specific table will be prepared in conjunction with closure of ITAAC Table 3.1-1 and include the following specific snubber information:" Since ESBWR DCD Tier 1, ITAAC Table 3.1-1, no longer contains piping and component ITAACs, please update reference to the DCD ITAAC table for plant-specific snubber information.

05.03.01-1

The purpose of the reactor vessel surveillance capsule program (RVSP), as described in ASTM E 185, is to monitor radiation effects on RV materials under operating conditions. Section C.III.1, Chapter 5, C.I.5.3.1.6 of Regulatory Guide (RG) 1.206 states, "because the material surveillance program is an operational program, as discussed in SECY-05-0197, the applicant must describe the program and its implementation in sufficient scope and level of detail for the staff to make a reasonable assurance finding on its acceptability." ESBWR DCD (Revision 5) Section 5.3.1.6 "Material Surveillance" provides general information about the capsules. To enable the staff to complete its review of the adequacy of the RVSP, please provide amplifying information as follows:

a. Provide the detailed locations of the capsules in the core beltline region and their associated lead factors.
b. Describe in detail the process for preparing the capsule specimens (i.e., how ASTM E 185 be implemented).
c. Specify the number and type of specimens in each capsule.

14.03.10-2

[Basis: 10 CFR 52.79(a)(21), 10 CFR 52.80(a)]
Part 10, ITAAC Table 2.3-1 – COL application (Part 10) Table 2.3-1, "ITAAC for Emergency Planning," addresses the Technical Support Center (TSC) in planning standard 5.0, "Emergency Facilities and Equipment" (see pages 10-8 and 10-9). The associated acceptance criteria do not address the availability of plant and environmental information in the TSC. Provide an appropriate acceptance criterion, consistent with acceptance criteria 8.1.5 in Table C.II.1.B1, "Emergency Planning – Generic Inspections, Tests, Analyses, and Acceptance Criteria (EP-ITAAC)," of Regulatory Guide (RG) 1.206.