March 20, 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. 001 (SRP SECTION 12.02) 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 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 any questions, please contact me at (301) 415-0224 or TAK@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

cc w/encl: See next page

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*Approval captured electronically in the electronic RAI system.

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Request for Additional Information
North Anna, Unit 3
Dominion
Docket Number 52-017
SRP Section: 12.02 - Radiation Sources
Application Section: 12.2.2.2

QUESTION

12.02-1

RAI Summary: A review of FSAR Section 12.2.2.2 indicates two different offsite doses from gaseous effluents for the child thyroid. Please review the dose results presented in the FSAR and address this inconsistency. In addition, discuss how the correct dose complies with the requirements of Appendix I to Part 50 for the child thyroid

Full RAI: Revised DCD Table 12.2-18bR (FSAR, p.12-16) indicates the gaseous effluent (radioiodines) dose to the child-thyroid when summed up over all exposure pathways for the ESE Sector at 1191 m. The total dose from radioiodines in this sector is 16.95 mrem/yr. The total projected dose for Unit 3 is due to the dose from the nearest garden (15 mrem/yr), inhalation at the nearest residence (1.6 mrem/yr), and nearest meat cattle (0.35 mrem/yr). These results are inconsistent with FSAR Table 12.2-201 (p.12-21) which lists a dose of 14 mrem/yr for iodines and particulates for Unit 3, and FSAR Table 12.2-203 (p.12-23) which lists a gaseous dose of 15 mrem/yr for Unit 3. In light of the above, please explain the inconsistency between DCD Table 12.2-18bR and Tables 12.2-201 and 12.2-203. Please provide corrections, if necessary, to resolve the inconsistency. Please explain how the child-thyroid dose, whether or not corrected, complies with the criteria of Section II. C of Appendix I to Part 50. Also note that as described in RAI 12.2-9S02, GEH is about to revise the gaseous effluent source terms in DCD Tier 2, Section 12.2.2.1.