

July 27, 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. 020 (SRP
SECTIONS: 09.05.01, 11.04) 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

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E-RAI Tracking No. 341, 781

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NRO-002

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NAME	JCDehmel*	TFrye*	AJohnson*	RWeisman*	TKevern *
DATE	07/23/07	07/23/07	07/23/07	07/23/07	07/27/2008

***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: 09.05.01 - Fire Protection Program;
11.04 - Solid Waste Management System
Application: FSAR Sections 9.5.1, 11.4.1,

QUESTIONS

09.05.01-16

Smoke, hot gases and fire suppressant migration between redundant trains – Regulatory Guide (RG) 1.206, Regulatory Position C.III.1, Section C.I.9.5.1.1 identifies that the COL applicant should describe plans to verify that purchased components required for postfire safe-shutdown are not impacted by indirect effects of fire such as smoke migration from one fire area to another. SECY-93-087 and SECY-90-016 include criteria that the design should ensure that smoke, hot gases, or fire suppressant will not migrate into other fire areas to the extent that safe shutdown could be adversely affected. Provide a description of the plant features that will provide this assurance, including acceptance criteria for fire barrier penetration seals, as well as the use and qualification of smoke dampers. Verify that fire dampers that do not close on smoke detection will not be relied upon to prevent the migration of smoke from one redundant train area to another. Also, describe how the fire hazards analysis will evaluate the potential for the migration of smoke, hot gases or fire suppressant to prevent safe shutdown, including any impact on the ability to access a fire area for manual suppression or, in the case of a control room evacuation, any impact on the ability to access and operate the remote shutdown panel.

09.05.01-17

Figures 9.5-201, 202, and 203 implement COL information Item 9.5.1.4-A and show the fire water loads of the plant. According to Appendix 9A FHA, there are suppression systems for the Fire Pumps, Warehouse, and Dirty/Clean Lube Oil Storage Tanks, but these systems are not indicated on Figure 9.5-201. The applicant should verify that these locations require a fire water supply and show these locations on Figure 9.5-201. The Warehouse is not identified on Figure 9A.2-33R but is incorporated by reference by North Anna 3's COLA Appendix 9A FHA. The applicant should include the Warehouse on Figure 9A.2-33R. A typo has been identified on page 9-42 of North Anna 3's COLA Appendix 9A FHA. The applicant should change F7454 to F7154. Additionally, Figure 9.5-1 is identified by North Anna 3's COLA Section 9.5.1.4 as applicable to North Anna 3. Figure 9.5-1 shows one "From Yard Piping" connections to the Turbine Building while Figure 9.5-201 shows that there are two to "DCD Figure 9.5-1" connections. The applicant should revise Figure 9.5-1 as applicable.

09.05.01-18

Regulatory Guide 1.206, Regulatory Position C.III.1, Section C.I.9.5.1.1 identifies that the COL applicant should provide information on the fire protection operational program. The ESBWR DCD took exception to BTP SPLB 9.5-1 (RG 1.189 for North Anna 3)

guidance to provide smoke detectors in the control room cabinets and consoles. The ESBWR DCD justification for the exception stated that any fire would be quickly detected and manual fire suppression activities would be initiated quickly upon discovery of a fire. The applicant should describe its procedures and/or plans that will facilitate the rapid identification of the specific cabinet/console that is on fire and facilitate rapid access to the cabinets/consoles for fire fighting. Because development of specific procedures and/or plans and fire fighting strategies for these areas are, in part, dependent upon the cabinet design features that will facilitate the rapid identification of the specific cabinet/console that is on fire, the applicant should also identify its plans for ensuring that its procedures and/or plans and fire fighting strategies are consistent with and are implementable for cabinet designs that are installed in the control room.

11.04-3

FSAR Section 11.4.1, STD COL 11.4-4-A states that the proposed plant will not utilize temporary low-level radioactive waste storage facilities to support plant operation. The ESBWR DCD, however, provides the capacity to store the amount of low-level radioactive waste that could be generated in 6 months of operation. Accordingly, the staff requests the applicant to describe the facilities planned for long-term storage of low-level radioactive wastes projected to be generated during the operation of North Anna Unit 3, and the operational program addressing the long-term management and storage of such wastes using the guidance of RG 1.206 and Section 11.4 of the Standard Review Plan (NUREG-0800, Rev. 3).