

September 6, 2001

Mr. David A. Christian  
Senior Vice President and  
Chief Nuclear Officer  
Innsbrook Technical Center-2SW  
5000 Dominion Blvd.  
Glen Allen, Virginia 23060-6711

SUBJECT: NORTH ANNA POWER STATION, UNITS 1 AND 2: REQUEST FOR  
ADDITIONAL INFORMATION REGARDING SECTIONS 3.7.7 AND 3.7.9 OF THE  
IMPROVED TECHNICAL SPECIFICATIONS (ITS); LICENSEE-IDENTIFIED  
BEYOND SCOPE ISSUES (TAC NOS. MB1439, MB1440, MB1451, AND  
MB1452)

Dear Mr. Christian:

The NRC staff reviewed your application dated December 11, 2000, to change the format and content of the Current Technical Specifications to be consistent with NUREG-1431, "Standard Technical Specifications - Westinghouse Plants," Revision 1, and certain generic changes to the NUREG.

On the basis of our review of the proposed changes for the licensee-identified beyond scope issues, ITS Sections 3.7.7, "Component Cooling Water System," and 3.7.9, "Ultimate Heat Sink," we find that additional information identified in the enclosure is needed. This inquiry was discussed with Ms. Regina Borsh of your licensing staff on August 27, 2001, who agreed to provide the staff with a response within 90 days of the date of this letter.

Sincerely,

**/RA/**

Stephen R. Monarque, Project Manager, Section 1  
Project Directorate II  
Division of Licensing Project Management  
Office of Nuclear Reactor Regulation

Docket Nos. 50-338 and 50-339

Enclosure: Request for Additional Information

cc w/encl: See next page

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Virginia Electric and Power Company

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Units 1 and 2

cc:

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**REQUEST FOR ADDITIONAL INFORMATION**  
**NORTH ANNA POWER STATION, UNITS 1 AND 2 (NAPS)**  
**IMPROVED TECHNICAL SPECIFICATIONS (ITS)**  
**LICENSEE-IDENTIFIED BEYOND SCOPE ISSUES**

**ITS SECTION 3.7.7, COMPONENT COOLING WATER (CCW) SYSTEM**

In your December 11, 2000, ITS submittal, you stated that the CCW system does not meet any of the four criteria of Title 10 of the *Code of Federal Regulations* (10 CFR) Section 50.36 for inclusion of a limiting condition for operation in the Technical Specifications (TS). Therefore, you proposed not to adopt TS 3.7.7, "Component Cooling Water System," for the ITS.

1. To support the completion of the review of ITS changes, please identify and list the systems and components (including reactor coolant pump (RCP) motors, RCP seals and residual heat removal system) that require the CCW for heat removal to maintain their operability, and assess the safety significance of the loss of CCW to the identified systems and components that require the CCW for operation. Your response should include:
  - a. a deterministic assessment to show that the loss of the CCW will not impact the plant design basis or the limiting equipment availability assumptions used in the deterministic analyses to establish margins of safety (related to 10 CFR 50.36, criteria 1 through 3), and
  - b. an analysis to show the deletion of CCW TS does not affect the existing TS requirements for the systems and components that rely on the CCW for operation.
2. Criteria 4 states, "A structure, system, or component (SSC) which operating experience or probabilistic risk assessment has shown to be significant to public health and safety," should be included in the TS. In your submittal, you state that, "[a]n evaluation performed by the Company determined that the CCW ... is a non-significant risk contributor to core damage frequency and offsite releases."
  - a. Please describe the evaluation performed and the criteria used to determine that the CCW is a non-significant contributor to core damage frequency (CDF) and large early release frequency (LERF). Insofar as this evaluation addresses the specific questions raised below, the answers to the specific questions can refer to the description of your evaluation.
  - b. Please identify the CCW functions modeled in the probabilistic risk assessment (PRA).
  - c. Please describe how the safety significance evaluation addressed external events such as fires, earthquakes, and other external events that could occur at NAPS.
  - d. Please explain how the SSCs will be treated differently after the requirements are relocated. For example, will there be changes in the testing frequency or the reliability of the SSCs?

- e. Please provide an estimate of the change in CDF and LERF assuming that the system is unavailable (the RAW value), the percentages of the current CDF and LERF that include the failure of the system (the Fussell-Vesely value), and an estimate of the change in CDF and LERF expected given the change in treatment after the requirements are relocated.

### **ITS SECTION 3.7.9, ULTIMATE HEAT SINK**

In your December 11, 2000, ITS submittal for NAPS, you claimed that the North Anna reservoir does not meet any of the four criteria of 10 CFR 50.36 for inclusion of a limiting condition for operation in the TS. Therefore, you have proposed not to adopt Current TS 3.7.5.1 b. for the ITS.

1. To support the completion of the review of ITS changes, please identify and list the systems and components that require the use of the North Anna Reservoir, and assess the safety significance of the loss of the reservoir to these identified systems and components. Your response should include:
  - a. a deterministic assessment to show that the loss of the North Anna Reservoir will not impact the plant design basis or the limiting equipment availability assumptions used in the deterministic analyses to establish margins of safety (related to 10 CFR 50.36, criteria 1 through 3), and
  - b. an analysis to show the deletion of North Anna Reservoir TS does not affect the existing TS requirements for the systems and components that rely on the reservoir for operation.
2. Criteria 4 states, "A structure, system, or component which operating experience or probabilistic risk assessment has shown to be significant to public health and safety," should be included in the TS. In your submittal you stated that, "[a]n evaluation performed by the company determined that the North Anna Reservoir is a non-significant risk contributor to core damage frequency and offsite releases."
  - a. Please describe the evaluation performed and the criteria used to determine that the reservoir is a non-significant contributor to CDF and LERF. Insofar as this evaluation addresses the specific questions raised below, the answers to the specific questions can refer to the description of your evaluation.
  - b. Please identify the reservoir functions modeled in the PRA or screened out of the PRA due to high assumed reliability.
  - c. Please describe how the safety significance evaluation addressed external events such as fires, earthquakes, and other external events that could occur at NAPS.
  - d. Please explain how the reservoir will be treated differently after the requirements are relocated.
  - e. Please provide an estimate of the change in CDF and LERF assuming that the reservoir is unavailable (the RAW value), the percentages of the current CDF

and LERF that include the failure of the system (the Fussell-Vesely value), and an estimate of the change in CDF and LERF expected given the change in treatment after the requirements are relocated.