March 8, 2004

Mr. David A. Christian
Senior Vice President and Chief Nuclear Officer
Dominion Resources Services, Inc.
Innsbrook Technical Center
5000 Dominion Blvd.
Glen Allen, VA 23060-6711

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION LETTER NO. 1 - DOMINION NUCLEAR NORTH ANNA, LLC EARLY SITE PERMIT APPLICATION FOR THE NORTH ANNA ESP SITE (TAC NO. MC1127)

Dear Mr. Christian:

By letter dated September 25, 2003, Dominion Nuclear North Anna, LLC (Dominion) submitted its application for an early site permit (ESP) for the North Anna ESP site.

The Nuclear Regulatory Commission (NRC) staff is performing a detailed review of the Site Safety Analysis Report in your ESP application. The NRC staff has determined that additional information is necessary to continue the review. The topics covered in the requests for additional information (RAIs) contained in Enclosure 1 are meteorology and emergency preparedness. These RAIs were sent to you via electronic mail on January 13, 2004, and were discussed with your staff by phone on January 22 and 27. Receipt of requested information within 30 days of the date of this letter (60 days for RAI 2.3.2-1) will support the NRC's efficient and timely review of Dominion's ESP application. We recognize that receipt of signed arrangements from all agencies involved in emergency planning, as discussed in RAI 13.3-1, may require some additional time. Please note that failure to provide a response in a timely fashion may result in a delay of completion of the staff's safety evaluation report. Please also note that information provided in response to the meteorology RAIs may be used in the staff's environmental review, as well as in its safety review.

If you have any questions or comments concerning this matter, you may contact me at (301) 415-1421 or mls3@nrc.gov.

Sincerely,

/RA/

Michael L. Scott, Dominion ESP Project Manager
New Reactors Section
New, Research and Test Reactors Program
Division of Regulatory Improvement Programs
Office of Nuclear Reactor Regulation

Docket No. 52-008

Enclosure: As stated

cc: See next page

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Enclosure: As stated

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OFFICE	RNRP/PM	IEPB/SC*	SPSB/SC*	OGC	RNRP/SC
NAME	MScott	EWeiss	RDennig	RWeisman	LDudes-jnw for:
DATE	2/6/04	2/3/04	2/3/04	3/5/04	3/5/04

OFFICIAL RECORD COPY

North Anna Early Site Permit Application
Site Safety Analysis Report (SSAR)
Requests for Additional Information (RAIs)
RAI LETTER NO. 1

RAI 2.3.1-1

SSAR Section 2.3.1, Regional Climatology

SSAR Section 2.3.1 provides climatological information. Sections 2.3.1 of Regulatory Guide 1.70 and Review Standard RS-002 describe methods and approaches acceptable to the staff for addressing the regulations. Both these documents state that all the meteorological data used for design basis considerations should be documented and substantiated. Consistent with the guidance in these documents, please provide the site characteristic values listed below. The bases or sources for these site characteristic values should also be provided. These site characteristics represent typical design parameter information for a range of reactor designs.

a) 3-second gust wind speed that represents a 100-year return period.

b) Maximum ambient dry bulb temperatures (along with the concurrent wet bulb temperatures) that:
   i) will be exceeded no more than 5% of the time seasonally or 2% of the time annually.
   ii) will be exceeded no more than 1% of the time seasonally or 0.4% of the time annually.
   iii) represents a 100-year return period.

c) Minimum ambient dry bulb temperature that:
   i) will be exceeded no more than 5% of the time seasonally or 1% of the time annually.
   ii) will be exceeded no more than 1% of the time seasonally or 0.4% of the time annually.
   iii) represents a 100-year return period.

d) Maximum ambient wet bulb temperature that:
   i) will be exceeded no more than 1% of the time seasonally or 0.4% of the time annually.
   ii) represents a 100-year return period.

e) Weight of the 100-year return period snow pack and the weight of the 48-hour winter Probable Maximum Precipitation, and the resulting maximum ground snow and ice load (water equivalent) that would be placed on the roofs of structures important to safety.

f) The ultimate heat sink (UHS) meteorological conditions resulting in the maximum evaporation and drift loss of water from the UHS and minimum cooling by the UHS.

g) The tornado maximum wind speed (translational and rotational), the radius of the maximum rotational wind speed, the maximum pressure drop, and the rate of the maximum pressure drop associated with a probability of occurrence of 10^{-7} per year.

Alternative approaches to evaluating extreme weather phenomena important to design of structures, systems, and components of a nuclear power plant or plants that might be constructed on the site may be used if appropriately justified.

RAI 2.3.3-1

SSAR Section 2.3.3, Onsite Meteorological Measurements Program

SSAR Section 2.3.3 discusses Dominion's onsite meteorological measurements program. However, the staff needs to review the 1996-1998 onsite meteorological data base used to generate the SSAR Section 2.3.4 short-term diffusion estimates and the SSAR Section 2.3.5 long-term diffusion estimates.

Sections 2.3.3 of Regulatory Guide 1.70 and Review Standard RS-002 describe methods and approaches acceptable to the staff for onsite meteorological measurement programs. Consistent with these documents, please provide a joint frequency distribution of wind speed and wind direction by atmospheric stability class in the format described in Regulatory Guide 1.23 for the 1996-1998 onsite meteorological data base used to generate the SSAR Section 2.3.4 short-term diffusion estimates and the SSAR Section 2.3.5 long-term diffusion estimates. Also, please provide an hourly listing of this data base on electronic media, preferably in the format described in Appendix A to Section 2.3.3 of RS-002.

RAI No. 13.3-1

SSAR Section 13.3, Emergency Planning

SSAR section 13.3.1 states that "[t]his chapter provides the emergency planning information required by NRC regulations necessary to support an ESP application. That includes information required by 10 CFR 52.17(b)(1) regarding identification of potential impediments to emergency planning, and information required by 10 CFR 52.17(b)(3) regarding descriptions of contacts and arrangements made with local, state and federal governmental agencies with emergency planning responsibilities."

In addition, SSAR Section 13.3.2.2.2.a.6 implies that the existing contacts and arrangements in support of North Anna Units 1 & 2 are applicable to prospective new reactors for the site under Dominion's ESP project. In SSAR Section 13.3.4, the cross-reference to Sections V.A.3 and V.B.2 states that the "[l]etters of agreement with supporting agencies are the existing letters of agreement in the NAEP [North Anna Emergency Plan]." SSAR Section 13.3.2.2.2.a.6 also provides the following statement:

> Dominion provided an overview of the Dominion ESP project to DEM [Commonwealth of Virginia Department of Emergency Management] Management staff members on February 20, 2003 and to risk jurisdiction coordinators of emergency management on March 24, 2003. The NRC licensing process, emergency preparedness requirements for ESP applicants, and

> Dominion's schedule for preparing and submitting this ESP application were described. No impediment to pursuing an ESP has been identified by Commonwealth of Virginia or risk jurisdiction response organizations.

A similar statement is contained in SSAR Section 13.3.3.

Please provide documentation of arrangements with local, state and federal governmental agencies - with emergency planning responsibilities - that specifically address the impacts of additional reactors at the North Anna site. Please explain how these arrangements address any impact that an additional reactor (or reactors) at the site would have on government agency emergency planning responsibilities, and provide acknowledgment by the agencies of the proposed expanded responsibilities (if any). This acknowledgment may be in either a letter of agreement or in separate correspondence. A separate correspondence might be sufficient in a case where an existing letter of agreement is written in a way that is broad enough to cover an expanded site use, and does not need to be revised. The correspondence should identify this fact. Finally, as indicated in evaluation criterion A.3 of Supplement 2 to NUREG-0654/FEMA-REP-1, addition of a signature page in the ESP application may be appropriate for some organizations to signify their agreement with the concept of operations associated with the ESP application.

RAI No. 13.3-2

SSAR Section 13.3, Emergency Planning

SSAR Section 13.3.2.2 states that "[t]he ESP site is one with pre-existing nuclear facilities that has existing state and local emergency plans. The ESP application, therefore, relies on and refers to information contained in these existing plans. No significant differences have been identified between major features proposed in the ESP application and the major features discussed in existing plans and relied on in the ESP application." SSAR Section 13.3.2.2.2.a.5 states that "[t]he Virginia RERP [Radiological Emergency Response Plans] and the risk jurisdiction RERPs apply to the radiological emergencies caused by events at the existing units and would also apply to events at the new units."

Please provide a copy of the current Commonwealth of Virginia RERP referenced in SSAR Section 13.3.3.2.2.2.a.2. In addition, please provide a copy of the current risk jurisdiction RERPs; including the Louisa, Caroline, Hanover, Orange, and Spotsylvania County RERPs, referenced in SSAR Section 13.3.3.2.2.2.a.1.

NORTH ANNA EARLY SITE PERMIT
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