



September 22, 2005

U. S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, D.C. 20555

Serial No. 05-640
ESP/JDH
Docket No. 52-008

DOMINION NUCLEAR NORTH ANNA, LLC
NORTH ANNA EARLY SITE PERMIT APPLICATION
RESPONSE TO SUPPLEMENTAL REQUEST FOR ADDITIONAL INFORMATION

On September 8, 2005, the NRC requested additional information to support its ongoing review of the environmental portion of the North Anna Early Site Permit application. Our response to the four RAIs is provided in the enclosure. No revision to the North Anna ESP application is required as a result of this response.

If you have any questions or require additional information, please contact Mr. Tony Banks at 804-273-2170.

Very truly yours,

A handwritten signature in black ink, appearing to read "Eugene S. Grecheck".

Eugene S. Grecheck
Vice President-Nuclear Support Services

Enclosure: Responses to Supplemental RAI dated September 8, 2005

Commitments made in this letter: None

cc: U. S. Nuclear Regulatory Commission, Region II
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COMMONWEALTH OF VIRGINIA

COUNTY OF HENRICO

The foregoing document was acknowledged before me, in and for the County and Commonwealth aforesaid, today by Eugene S. Grecheck, who is Vice President, Nuclear Support Services, of Dominion Nuclear North Anna, LLC. He has affirmed before me that he is duly authorized to execute and file the foregoing document on behalf of Dominion Nuclear North Anna, LLC, and that the statements in the document are true to the best of his knowledge and belief.

Acknowledged before me this 22nd day of September, 2005.

My Commission expires: August 31, 2008

Margaret B. Bennett
Notary Public

(SEAL)

Enclosure

**Response to September 8, 2005 NRC Supplemental Request
for Additional Information related to the Environmental Review
of the North Anna Early Site Permit Application**

RAI No. 1 (September 8, 2005)

Confirm that Revision 5 of your application submitted on July 25, 2005, did not change any of the information in the environmental report section of the application. If Revision 5 did change any of the information in the ER, specifically identify the changed information including the ER section number.

Response

The Environmental Report was revised only to show "Revision 5, July 2005" rather than "Revision 4, May 2005" in the lower-right corner of each page to conform with NRC guidance related to the submittal of electronic documents. Other than this administrative change, Dominion confirms that Revision 5 of the North Anna ESP application, submitted July 25, 2005, did not change any information in the environmental report section of the application.

Application Revision

None

RAI No. 2 (September 8, 2005)

The plant parameter envelope serves as a surrogate for the reactor design at the ESP stage. Table 3.1-1 of the ER is titled Plant Parameter Envelope and Table 3.1-9 is titled ESP Site Characteristics and Design Parameters. Is Table 3.1-9, Part 2 Design Parameters, the plant parameter envelope?

Response

The parameters listed in Table 3.1-9, Part 2, Design Parameters, are the appropriate parameters and values for use by NRC when discussing or evaluating those particular aspects of the postulated plant's design at the North Anna ESP site.

However, as described in an August 19, 2004 RAI response, other aspects of the bounding plant design (i.e., the plant parameter envelope) are discussed in appropriate sections throughout the application. For example, the plant "footprint" that illustrates the location of the proposed future units at the North Anna site is provided in Section 3.1.4, Plant Appearance, rather than in Section 3.1.3, Plant Parameters Envelope.

Application Revision

None

RAI No. 3 (September 8, 2005)

The maximum noise value produced by operation of the cooling towers is stated in Table 3.1-9 as less than 60-65 dbA at the exclusion area boundary (EAB). Please confirm that the upper range value (65 dbA) is the bounding value measured from the closest point of the cooling towers to the EAB.

Response

The upper range value, 65 dbA, is the bounding noise value and is measured from the closest point of the cooling towers to the EAB.

Application Revision

None

RAI No. 4 (September 8, 2005)

The description of the evaporation rate in Table 3.1-9 specifies the average rate of water loss of 13,000 gpm at full load and full flow rate with a cooling water temperature rise of 18 degrees F. Unit 3 will operate under conditions other than the one specified above. Is the 13,000 gpm evaporation bounding under all long term average operating conditions?

Response

The 13,000 gpm value is the bounding value for evaporation rate under all long term average operating conditions.

The evaporation rate was determined analytically by assuming full load, full flow, and a 18 degree cooling water temperature rise. The conditions assumed in the analysis were described in the definition statement but were not intended to suggest that those were the only conditions under which the unit would operate.

Application Revision

None