

July 18, 2006

APPLICANT: Dominion Nuclear North Anna LLC

FACILITY: North Anna Early Site Permit

SUBJECT: SUMMARY OF TELEPHONE CONFERENCE AND THE SITE AUDIT WITH
DOMINION NUCLEAR NORTH ANNA LLC REGARDING THE NORTH ANNA
EARLY SITE PERMIT (ESP) REVIEW (TAC NOS. MC1127 AND MC1128)

The U.S. Nuclear Regulatory Commission (NRC) staff conducted a teleconference on July 6, 2006, and a site audit on July 12, 2006, with Dominion Nuclear North Anna, LLC (Dominion) to discuss the review of Revision 07 of the ESP application. Enclosure 1 is a list of participants. The purposes of the teleconference and site audit were to discuss apparent discrepancies in the application and clarifications needed for the staff to complete its review (see Enclosure 2).

Dominion agreed to resolve these discrepancies and to incorporate the changes and clarifications needed in Revision 08 to the ESP application. Dominion agreed to submit Revision 08 to the ESP application on July 31, 2006.

/RA/

Nitin Patel, Project Manager
ESBWR/ABWR Projects Branch
Division of New Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No.: 52-008

Enclosure: As stated

cc w/encls: See next page

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ADAMS ACCESSION NO. ML061990240

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**TELECONFERENCE SUMMARY DATED 7/06/2006
SITE AUDIT AT BECHTEL OFFICE ON 7/12/2006
NORTH ANNA EARLY SITE PERMIT (ESP) APPLICATION
(Revision 07, dated June 21, 2006)**

Dominion submitted Revision 07 of the ESP application on June 21, 2006, to address questions identified by the staff in a June 07, 2006, teleconference (teleconference summary dated June 07, 2006, ADAMS Accession Number ML061580174). In reviewing Revision 07, the staff concluded that Dominion addressed the questions, however, questions 4.a and 5 were only partially addressed. The staff requests responses to the following questions and comments to fully resolve the apparent discrepancies discussed in questions 4.a and 5:

1. Site Safety Analysis Report (SSAR) Table 1.3-1 and ER Table 3.1-1, PPE Section 9.3.1

Bounding note 12 should be referenced instead of note 6 to provide more clarity.

2. SSAR Table 1.3-2 and ER Table 3.1-2, Notes 12 and 13

Indicate that liquid and gaseous source terms reflect ABWR with an adjusted power of 4300 MWt and ESBWR scaled up by a margin of 25 percent.

3. SSAR Table 1.3-7 and ER Table 5.4-6

Table footnotes should indicate that the composite liquid effluent activities are based on ABWR, AP1000, ACR-700, and ESBWR, and the stated adjustments to the ABWR and ESBWR.

4. SSAR Table 1.3-8 and ER Table 5.4-7

Table footnotes should indicate that the composite gaseous effluent activities are based on ABWR, AP1000, ACR-700, and ESBWR, and the stated adjustments to the ABWR and ESBWR.

5. ER Table 3.1-9

In the "Doses Consequences" section, provide reference to ER Table 5.4-7 in discussing normal dose compliance for 10 CFR 20 for gaseous effluents.

6. ER Table 3.1-9

In the "Liquid Radwaste System" section, provide reference to ER Table 5.4-6 in discussing normal dose compliance for 10 CFR 20 for liquid effluents.

7. ER Table 3.1-9

In the "Source Term" section, change tritium release from "3530 Ci/yr (7060 Ci/yr)" to "3500 Ci/yr (7000 Ci/yr)" consistent with the value in ER Table 5.4-7.

Enclosure 2

8. ER Section 5.4.1.1

It is stated that the dilution factor (DF) is 10:

- a. Explain why a DF of 1000 was used in Table 5.4-6 rather than 10.
- b. Is it still conservative?
- c. What is the basis for a DF of 1000?
- d. Which blowdown rates of Table 3.1-9 are used?
- e. For clarity, add a note that the existing units provide a total of approximately 430,000 gpm in the discharge canal (based on UFSAR Table 11.2-20).

9. ER Section 5.4.2.1

It is stated that the sum of the fractions of effluent concentration limits (ECL) is within unity. Using a DF of 10 as provided in ER Section 5.4.1.1 and Table 5.4.1, the results of the staff's independent evaluation do not confirm these results. This needs to be reconciled with the actual DF used in Table 5.4-6 and Table 3.1-9 data.

10. ER Table 5.4-1

It is stated that the DF for discharge is 10.

- a. The staff's independent evaluation indicates that a DF of 1000 was applied to obtain the results in Table 5.4-6.
- b. Explain why a DF of 10 was used for all calculations except for 10 CFR Part 20, App. B, Table 2 compliance.
- c. Provide the basis for using a DF of 1000, using the blowdown rates of Table 3.1-9.
- d. It would be more clear to replace the effluent discharge rate of "100 gpm with 10,000 gpm dilution" with "100 gpm" and replacing "Dilution factor for discharge 10" with "Site specific dilution flow rate 100,000 gpm."

11. SSAR Section 3.5.1.6

This section references Section 2.2.3.2.1. The appropriate reference should be Section 2.2.3.2.

12. SSAR Sections 1.3.1, 1.9, ER Sections 3.1.6 and 5.4.2

Expand the discussion on the basis consideration of source terms, in light of the various reactor designs and the increase in the power level. Expand the description of the considerations applied in developing the bounding site specific PPE values from generic PPE values.

13. ER Section 5.4.4.3

Typographical error on the third line, "(40 CFR 90)" should read as "(40 CFR 190)."