



September 7, 2004

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

Serial No. 04-537
ESP/JDH
Docket No. 52-008

DOMINION NUCLEAR NORTH ANNA, LLC
NORTH ANNA EARLY SITE PERMIT APPLICATION
REVISION 3

Enclosed is Revision 3 to the North Anna Early Site Permit (ESP) application. Revision 3 updates the application to incorporate Dominion's responses to NRC's requests for additional information and other information discussed with the NRC staff.

Note that Revision 2, submitted July 15, 2004 (Serial No. 04-434) only updated information in the Environmental Report. Revision 3 updates the corresponding common information in the Site Safety Analysis Report.

A summary of the Revision 3 changes is provided in Enclosure 1. A CD containing the North Anna ESP application, Revision 3, is provided in Enclosure 2.

If you have any questions or require additional information, please contact Mr. Joseph D. Hegner at 804-273-2770.

Very truly yours,

Eugene S. Grecheck
Vice President-Nuclear Support Services

Enclosures:

1. Description of Changes in Revision 3.
2. One CD-ROM labeled "North Anna Early Site Permit Application, Docket No. 52-008, September 2003; Revision 3, September 2004, NRC ADAMS Edition," containing the following files:

D074

North Anna ESP Application R3 (1 of 8).pdf; 4,134 KB; publicly available
North Anna ESP Application R3 (2 of 8).pdf; 21,253,616 bytes, publicly available
North Anna ESP Application R3 (3 of 8).pdf; 49,766,843 bytes, publicly available
North Anna ESP Application R3 (4 of 8).pdf; 40,852,045 bytes, publicly available
North Anna ESP Application R3 (5 of 8).pdf; 37,259,492 bytes, publicly available
North Anna ESP Application R3 (6 of 8).pdf; 27,649,817 bytes, publicly available
North Anna ESP Application R3 (7 of 8).pdf; 45,007,925 bytes, publicly available
North Anna ESP Application R3 (8 of 8).pdf; 25,559,699 bytes, publicly available

Commitments made in this letter: None

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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 7TH day of September 2004.

My Commission expires: May 31, 2006

Vicki L. Hull
Notary Public

(SEAL)



Serial No. 04-537
Docket No. 52-008
Revision 3 to North Anna ESP Application

Enclosure 1

**Description of Changes in Revision 3
North Anna Early Site Permit Application**

North Anna Early Site Permit Application Description of Changes in Revision 3	
Affected Section, Table, or Figure	Reason for Change
Acronyms/Abbreviations/Initialisms	
<ul style="list-style-type: none"> ▪ New entries 	Added new entries for changes made in Revision 3.
Part 2 Chapter 1	
<ul style="list-style-type: none"> ▪ Table 1.3-1 	Response to RAI E3.1-1; Reference Dominion's 5/17/04 Letter, Serial No. 04-170.
<ul style="list-style-type: none"> ▪ Table 1.3-1 	Response to RAI 1.3-2; Reference Dominion's 8/10/04 Letter, Serial No. 04-348.
<ul style="list-style-type: none"> ▪ Section 1.8 	Response to RAI 1.8-1; Reference Dominion's 8/20/04 Letter, Serial No. 04-354.
<ul style="list-style-type: none"> ▪ Sections 1.8.1, 1.8.2, 1.8.3 	Response to RAI 2.3.5-2; Reference Dominion's 8/20/04 Letter, Serial No. 04-354.
<ul style="list-style-type: none"> ▪ Section 1.8.2 	Response to RAI 2.5.2-9 and July 9, 2004 RAI; Reference Dominion's 8/19/04 Letter, Serial No. 04-438.
<ul style="list-style-type: none"> ▪ Section 1.9 (new) ▪ Section 1.9 References ▪ Tables 1.3-1, 1.9-1(new) 	Response to RAI 1.3-1; Reference Dominion's 8/19/04 Letter, Serial No. 04-318A.
Part 2 Chapter 2	
<ul style="list-style-type: none"> ▪ Sections 2.1.3.1, 2.1.3.2, 2.1.3.3.1, 2.1.3.3.2, 2.1.3.4, 2.1.3.5, 2.1.3.6 ▪ Section 2.1 References ▪ Figures 2.1-4, 2.1-5, 2.1-6, 2.1-7, 2.1-8, 2.1-8A (new), 2.1-10, 2.1-11, 2.1-12, 2.1-13, 2.1-13A (new), 2.1-14 	Response to RAI 2.1.3-1; Reference Dominion's 8/10/04 Letter, Serial No. 04-348.
<ul style="list-style-type: none"> ▪ Section 2.1 References 	Response to RAI 1.8-1; Reference Dominion's 8/20/04 Letter, Serial No. 04-354.
<ul style="list-style-type: none"> ▪ Section 2.2.3.1.2 	Response to RAI 2.2.2-3; Reference Dominion's 8/2/04 Letter, Serial No. 04-318.
<ul style="list-style-type: none"> ▪ Sections 2.3.1.1, 2.3.1.2, 2.3.1.3.1, 2.3.1.3.2, 2.3.1.3.3, 2.3.1.3.4, 2.3.1.3.5, 2.3.1.3.6, 2.3.1.3.8, 2.3.2.1, 2.3.2.2.1, 2.3.2.3, 2.3.2.4, 2.3.2.5 ▪ Section 2.3 References ▪ Tables 2.3-1, 2.3-2, 2.3-4, 2.3-5, 2.3-6, 2.3-7, 2.3-18 (new) ▪ Figure 2.3-24 	Response to RAIs 2.3.1-1 (revised), 2.3.1-2, 2.3.1-3, 2.3.1-4, 2.3.1-5, 2.3.1-6, 2.3.2-1, 2.3.2-2; Reference Dominion's 8/2/04 Letter, Serial No. 04-318.
<ul style="list-style-type: none"> ▪ Section 2.3.4.2 ▪ Tables 2.3-3, 2.3-13, 2.3-14 	Response to RAI 2.3.4-1; Reference Dominion's 7/12/04 Letter, Serial No. 04-170A.

North Anna Early Site Permit Application Description of Changes in Revision 3	
Affected Section, Table, or Figure	Reason for Change
<ul style="list-style-type: none"> ▪ Section 2.3 References 	Response to RAI 1.8-1; Reference Dominion's 8/20/04 Letter, Serial No. 04-354.
<ul style="list-style-type: none"> ▪ Section 2.4.1.1 ▪ Sections 2.4.7.2, 2.4.7.4 ▪ Section 2.4.8 ▪ Sections 2.4.11.3, 2.4.11.4 ▪ Table 2.4-6 	Change in Unit 4 cooling approach from wet towers to dry towers; Reference Dominion's 3/31/04 Letter to NRC, Serial No. 04-194. Response to RAIs 2.4.1-2, 2.4.1-4; Reference Dominion's 8/2/04 Letter, Serial No. 04-318.
<ul style="list-style-type: none"> ▪ Section 2.4.7.6 	Response to RAI 2.4.7-5; Reference Dominion's 8/2/04 Letter, Serial No. 04-318.
<ul style="list-style-type: none"> ▪ Section 2.4.9 	Response to RAI 2.4.9-1; Reference Dominion's 8/2/04 Letter, Serial No. 04-318.
<ul style="list-style-type: none"> ▪ Sections 2.4.12.1.2, 2.4.12.3, 2.4.12.4 ▪ Table 2.4-15 ▪ Figure 2.4-15 	Response to RAI 2.4.12-1; Reference Dominion's 8/2/04 Letter, Serial No. 04-318.
<ul style="list-style-type: none"> ▪ Section 2.4.12.2 ▪ Section 2.4 References ▪ Table 2.4-19 	Follow-up response to RAI 17.1-1; Reference Dominion's 8/20/04 Letter, Serial No. 04-354.
<ul style="list-style-type: none"> ▪ Section 2.5.1.1.4, 2.5.2.2.8 	Response to RAI 2.5.1-1; Reference Dominion's 7/8/04 Letter, Serial No. 04-270.
<ul style="list-style-type: none"> ▪ Section 2.5.1.1.4 	Response to RAI 2.5.1-2; Reference Dominion's 7/8/04 Letter, Serial No. 04-270.
<ul style="list-style-type: none"> ▪ Section 2.5.1.1.4 	Response to RAI 2.5.1-3; Reference Dominion's 7/8/04 Letter, Serial No. 04-270.
<ul style="list-style-type: none"> ▪ Section 2.5.1.1.4 	Response to RAI 2.5.1-4; Reference Dominion's 7/8/04 Letter, Serial No. 04-270.
<ul style="list-style-type: none"> ▪ Section 2.5.1.2.6 	Response to RAI 2.5.4-7; Reference Dominion's 8/5/04 Letter, Serial No. 04-347.
<ul style="list-style-type: none"> ▪ Section 2.5.2.6.2 ▪ Section 2.5 References 	Response to RAI 2.5.2-4; Reference Dominion's 7/8/04 Letter, Serial No. 04-270.
<ul style="list-style-type: none"> ▪ Sections 2.5.2, 2.5.2.6.5, 2.5.2.6.6, 2.5.2.6.7, 2.5.2.6.8, 2.5.2.6.9, 2.5.2.6.10, 2.5.2.7 ▪ Section 2.5 References ▪ Tables 2.5-24, 25, 26, 27, 28 ▪ Figures 2.5-44A, 44B, 46, 48, 49, 50, 51, 52, 53, 54A, 54B, 54C, 55 	Response to RAI 2.5.2-9 and July 9, 2004 RAI; Reference Dominion's 8/19/04 Letter, Serial No. 04-438.
<ul style="list-style-type: none"> ▪ Sections 2.5.4.7.3, 2.5.4.7.4 ▪ Table 2.5-46 	Response to RAI 2.5.4-9; Reference Dominion's 8/19/04 Letter, Serial No. 04-347A.
<ul style="list-style-type: none"> ▪ Sections 2.5.4.8, 2.5.4.8.2, 2.5.4.8.4, 2.5.4.8.5 	Response to RAI 2.5.4-10; Reference Dominion's 8/19/04 Letter, Serial No. 04-347A.
<ul style="list-style-type: none"> ▪ Sections 2.5.5.1.2, 2.5.5.2.3, 2.5.5.5, 2.5.5.6 	Response to RAI 2.5.5-1; Reference Dominion's 8/19/04 Letter, Serial No. 04-347A.

North Anna Early Site Permit Application Description of Changes in Revision 3	
Affected Section, Table, or Figure	Reason for Change
<ul style="list-style-type: none"> ▪ Tables 2.5-20, 2.5-23 	Correction of controlling earthquake calculation; Reference Dominion's 8/19/04 Letter, Serial No. 04-347A.
<ul style="list-style-type: none"> ▪ Table 2.5-45 	Response to RAI 2.5.4-5; Reference Dominion's 8/5/04 Letter, Serial No. 04-347.
<ul style="list-style-type: none"> ▪ Table 2.5-47 	Response to RAI 2.5.4-11; Reference Dominion's 8/5/04 Letter, Serial No. 04-347.
Part 2 Chapter 15	
<ul style="list-style-type: none"> ▪ Section 15.2 ▪ Section 15.4 ▪ Tables 15.4-1, 15.4-3, 15.4-5, 15.4-7, 15.4-9, 15.4-10, 15.4-12, 15.4-14, 15.4-16, 15.4-18, 15.4-19, 15.4-21, 15.4-23, 15.4-25, 15.4-27 	Response to RAIs 15.4-2, 15.4-3, 15.4-5, 15.4-6; Reference Dominion's 8/10/04 Letter, Serial No. 04-348.
<ul style="list-style-type: none"> ▪ Section 15.2 References 	Response to RAI 1.8-1; Reference Dominion's 8/20/04 Letter, Serial No. 04-354.
<ul style="list-style-type: none"> ▪ Section 15.3 References 	Response to RAI 1.8-1; Reference Dominion's 8/20/04 Letter, Serial No. 04-354.
Part 3 Chapter 2	
<ul style="list-style-type: none"> ▪ Section 2.3.2.2.1 ▪ Table 2.3-11 ▪ Section 2.3 References 	Follow-up response to RAI 17.1-1; Reference Dominion's 8/20/04 Letter, Serial No. 04-354.
<ul style="list-style-type: none"> ▪ Section 2.5.1, 2.5.1.1, 2.5.1.2, 2.5.1.3.1, 2.5.1.3.2, 2.5.1.5 ▪ Section 2.5 References ▪ Table 2.5-12 ▪ Table 2.5-15 ▪ Figures 2.5-7A (new), 2.5.12A (new) ▪ Figure 2.5-10 ▪ Figure 2.5-13 	Response to RAI 2.1.3-1; Reference Dominion's 8/10/04 Letter, Serial No. 04-348.
<ul style="list-style-type: none"> ▪ Section 2.5.2 	Response to RAI 1.3-1; Reference Dominion's 8/19/04 Letter, Serial No. 04-318A.
<ul style="list-style-type: none"> ▪ Sections 2.7.1, 2.7.1.1, 2.7.1.2, 2.7.1.3, 2.7.1.4, 2.7.1.5, 2.7.2.1, 2.7.3.1, 2.7.3.2, 2.7.3.3, 2.7.3.4, 2.7.4, 2.7.4.1.1, 2.7.4.1.2, 2.7.4.1.3, 2.7.4.1.4, 2.7.4.1.5, 2.7.4.1.7 ▪ Section 2.7 References ▪ Tables 2.7-1, 2.7-2, 2.7-3 ▪ Figure 2.7-2 	Response to RAIs 2.3.1-1 (revised), 2.3.1-2, 2.3.1-3, 2.3.1-4, 2.3.1-5, 2.3.1-6, 2.3.2-1, 2.3.2-2; Reference Dominion's 8/2/04 Letter, Serial No. 04-318.

North Anna Early Site Permit Application Description of Changes in Revision 3	
Affected Section, Table, or Figure	Reason for Change
Part 3 Chapter 3	
<ul style="list-style-type: none"> ▪ Section 3.1.6 (new) ▪ Section 3.1 References ▪ Tables 3.1-1, 3.1-9 (new) 	Response to RAI 1.3-1; Reference Dominion's 8/19/04 Letter, Serial No. 04-318A.
<ul style="list-style-type: none"> ▪ Sections 3.2.1, 3.8.1, 3.8.2.2 	Response to RAI 1.3-1; Reference Dominion's 8/19/04 Letter, Serial No. 04-318A.
<ul style="list-style-type: none"> ▪ Table 3.1-1 	Response to RAI 1.3-2; Reference Dominion's 8/10/04 Letter, Serial No. 04-348.
Part 3 Chapter 5	
<ul style="list-style-type: none"> ▪ Sections 5.4.3, 5.8.2.1.2 	Response to RAI 1.3-1; Reference Dominion's 8/19/04 Letter, Serial No. 04-318A.
Part 3 Chapter 6	
<ul style="list-style-type: none"> ▪ Section 6.4.1 	Response to RAIs 2.3.1-1 (revised), 2.3.1-2, 2.3.1-3, 2.3.1-4, 2.3.1-5, 2.3.1-6, 2.3.2-1, 2.3.2-2; Reference Dominion's 8/2/04 Letter, Serial No. 04-318.
Part 3 Chapter 7	
<ul style="list-style-type: none"> ▪ Section 7.1 References 	Response to RAI 1.8-1; Reference Dominion's 8/20/04 Letter, Serial No. 04-354.