

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

APPLICANT: Dominion Nuclear North Anna LLC

July 18, 2006

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

ADAMS ACCESSION NO. ML061990240

| | | | |
|--------|----------|----------|------------|
| OFFICE | PM:NESB | BC:NEPB | (A)BC:NESB |
| NAME | NPatel | CNolan | ACubbage |
| DATE | 07/18/06 | 07/18/06 | 07/18/06 |

OFFICIAL RECORD COPY

Distribution for Teleconference Summary dated July 18, 2006

Hard Copy

NESB R/F
ACubbage
NPatel
GWunder

E-mail

PUBLIC
DMatthews/FGillespie
NESB Group
OGC
ACRS/ACNW
MAshley
JJolicoeur, EDO
BMusico
KCampe
PPrescott
RHarvey
JLee
GBagchi
CMunson
AKugler
JCushing
RHarvey
RWeisman
KWinsberg
MMasnik
MParkhurst (PNL)
MCullingford
TKobetz

NORTH ANNA EARLY SITE PERMIT
SERVICE LIST

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

Ms. Lillian M. Cuoco, Esq.
Senior Counsel
Dominion Resources Services, Inc.
Rope Ferry Road
Building 475, 5th Floor
Waterford, CT 06385

Mr. C. Lee Lintecum
County Administrator
Louisa County
P.O. Box 160
Louisa, Virginia 23093

Mr. David R. Lewis
Pillsbury Winthrop Shaw Pittman
2300 N Street, N.W.
Washington, D.C. 20037

Dr. W. T. Lough
Virginia State Corporation Commission
Division of Energy Regulation
P. O. Box 1197
Richmond, Virginia 23209

Office of the Attorney General
Commonwealth of Virginia
900 East Main Street
Richmond, Virginia 23219

Senior Resident Inspector
North Anna Power Station
U. S. Nuclear Regulatory Commission
1024 Haley Drive
Mineral, Virginia 23117

Mr. Robert B. Strobe, M.D., M.P.H.
State Health Commissioner
Office of the Commissioner
Virginia Department of Health
P. O. Box 2448
Richmond, Virginia 23218

Mr. David Lochbaum
Union of Concerned Scientists
1707 H Street, NW
Suite 600
Washington, DC 20006-3919

Mr. Paul Gunter
Director of the Reactor Watchdog Project
Nuclear Information & Resource Service
1424 16th Street, NW, Suite 404
Washington, DC 20036

Mr. Adrian Heymer
Nuclear Energy Institute
Suite 400
1776 I Street, NW
Washington, DC 20006-3708

Mr. Russell Bell
Nuclear Energy Institute
Suite 400
1776 I Street, NW
Washington, DC 20006-3708

Mr. James Riccio
Greenpeace
702 H Street, NW, Suite 300
Washington, DC 20001

Mr. Jay M. Gutierrez
Morgan, Lewis & Bockius, LLP
1111 Pennsylvania Avenue, NW
Washington, DC 20004

Mr. Gary Wright, Manager
Division of Nuclear Safety
Illinois Emergency Management Agency
1035 Outer Park Drive
Springfield, IL 62704

Mr. Glenn H. Archinoff
AECL Technologies
481 North Frederick Avenue
Suite 405
Gaithersburg, MD. 20877

Mr. Ed Wallace, General Manager
Projects
PBMR Pty LTD
PO Box 9396
Centurion 0046
Republic of South Africa

Mr. Brendan Hoffman
Research Associate on Nuclear Energy
Public Citizens Critical Mass Energy
and Environmental Program
215 Pennsylvania Avenue, SE
Washington, DC 20003

NORTH ANNA EARLY SITE PERMIT
SERVICE LIST

-2-

Mr. Paul Leventhal
Nuclear Control Institute
1000 Connecticut Avenue, NW
Suite 410
Washington, DC 20036

Mr. Charles Brinkman
Westinghouse Electric Co.
Washington Operations
12300 Twinbrook Pkwy., Suite 330
Rockville, MD 20852

Mr. Marvin Fertel
Senior Vice President
and Chief Nuclear Officer
Nuclear Energy Institute
Suite 400
1776 I Street, NW
Washington, DC 20006-3708

Dr. Glenn R. George
Co-Head, Energy Capital Markets
Nomura Securities International, Inc.
2 World Financial Center, Bldg. B, 21st
Floor
New York, NY 10281-1198

Mr. Arthur R. Woods
Enercon Services, Inc.
500 TownPark Lane
Kennesaw, GA 30144

Ms. Vanessa E. Quinn, Chief
Radiological Emergency Preparedness
Branch
Nuclear and Chemical Preparedness and
Protection Division
Department of Homeland Security
1800 South Bell Street, Room 837
Crystal City-Arlington, VA 22202-3546

Mr. Michael M. Cline, State Coordinator
Virginia Department of Emergency
Management
10501 Trade Court
Richmond, Virginia 23236-3713

Mr. Jim Debiec
Director - Power Production
Old Dominion Electric Cooperative
4201 Dominion Blvd
Glen Allen, VA 23060

Mr. Thomas Mundy
Director, Project Development
Exelon Generation
200 Exelon Way, KSA3-N
Kennett Square, PA 19348

Ms. Joanne Tetrault
Librarian
Louisa County Public Library
881 Davis Highway
Mineral, VA 23117

Ms. Abhaya Thiele
406 Key West Drive
Charlottesville, VA 22911

Mr. J. Randall Wheeler
Spotsylvania County Administrator
P.O. Box 99
Spotsylvania Courthouse
Spotsylvania, VA 22553

Mr. William C. Rolfe
Assistant County Administrator
P.O. Box 111
Orange, VA 22690

Ms. Sandra Sloan
Areva NP, Inc.
3315 Old Forest Road
P.O. Box 10935
Lynchburg, VA 24506-0935

Ms. Kathryn Sutton, Esq.
Morgan, Lewis & Bockius, LLP
1111 Pennsylvania Avenue, NW
Washington, DC 20004

Mr. Robert E. Sweeney
IBEX ESI
4641 Montgomery Avenue
Suite 350
Bethesda, MD 20814

Mr. Dick Clark
President, Oakridge Civic Assn.
2212 Founders Bridge Rd.
Midlothian, VA 23113

Mr. Harry Ruth
For the Friends of Lake Anna
C/O 230 Heather Drive
Bumpass, VA 23024

Ms. Myra Cramer, Manager
Hanover Branch Library
7527 Library Drive
Hanover, Virginia 23069

Louisa County Library Branch
Jefferson-Madison Regional Library
881 Davis Highway
Mineral, Virginia 23117

Ms. Barbara Davidson, Manager
Salem Church Library
2607 Salem Church Road
Frederick, Virginia 22407

Internal e-mail

SCollins
MDapas
RBlough
MGamberoni
BHollan
WTravers
LPlisco
VMcCree
CCasto
JCaldwell
GGrant
CPederson
MSatorius
BMalet
TGwynn
DChamberlain
AHowell

External E-mail

tom.miller@hq.doe.gov or
tom.miller@nuclear.energy.gov
Eugene_Grecheck@dom.com
Jack_Davis@dom.com
Marvin_Smith@dom.com
Joseph_Hegner@dom.com
Tony_Banks@dom.com
Lillian_Cuoco@dom.com
David_Sommers@dom.com
Vicki_Hull@dom.com
Margaret_Bennett@dom.com
david.lewis@pillsburylaw.com
gzinke@entergy.com
sandra.sloan@areva.com
mwetterhahn@winston.com
whorin@winston.com
gcesare@enercon.com
louis.quintana@ge.com
steven.hucik@ge.com
sfrantz@morganlewis.com
ksutton@morganlewis.com
jgutierrez@morganlewis.com
patriciaL.campbell@ge.com
bob.brown@ge.com
david.hinds@ge.com
chris.maslak@ge.com
james1beard@ge.com
mark.beaumont@wsms.com
eddie.grant@exeloncorp.com

LIST OF PARTICIPANTS

JULY 6, 2006, TELECONFERENCE WITH DOMINION

| Participant | Affiliation |
|--------------------|--|
| Nitin Patel | U.S. Nuclear Regulatory Commission (NRC) |
| Jean-Claude Dehmel | NRC |
| Greg Stoetzel | Pacific NorthWest National Laboratory (PNNL) |
| Tony Banks | Dominion Nuclear North Anna, LLC |
| Joseph Hagner | Dominion Nuclear North Anna, LLC |
| Rich Baker | Bechtel |
| Ken Jha | Bechtel |

JULY 12, 2006, SITE AUDIT

Participant

Affiliation

Nitin Patel
Jean-Claude Dehmel
Tony Banks
Rich Baker
Ken Jha
Becky Carr
Bob Prunty

U.S. Nuclear Regulatory Commission (NRC)
NRC
Dominion Nuclear North Anna, LLC
Bechtel
Bechtel
Bechtel
Bechtel

**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)."