

July 25, 2006

APPLICANT: Dominion Nuclear, NuStart Energy, Entergy Nuclear

SUBJECT: SUMMARY OF JULY 14, 2006, CATEGORY 2 PUBLIC MEETING WITH  
ESBWR DESIGN-CENTERED WORKING GROUP REGARDING PRE-COL  
APPLICATION ACTIVITIES

On July 14, 2006, the U.S. Nuclear Regulatory Commission (NRC) held a public meeting at NRC Headquarters in Rockville, MD, with representatives of Dominion Nuclear, NuStart Energy, Entergy Nuclear, General Electric, Bechtel, and Enercon Services. The purpose of the meeting was to provide an opportunity for the companies to: 1) present pre-application combined license (COL) plans, schedules and expectations; 2) provide preliminary response to Regulatory Issue Summary (RIS) 2006-06, New Reactor Standardization Needed to Support the Design-Centered Licensing Review Approach; and 3) identify their key COL application challenges. The meeting attendees are identified in Enclosure 1 and the meeting agenda is provided in Enclosure 2.

Handouts distributed at the meeting are identified by title and by Agencywide Documents Access and Management System (ADAMS) accession number at the end of this memorandum. ADAMS is the system that provides text and image files of NRC's public documents. If you do not have access to ADAMS or if there are problems in accessing the handouts located in ADAMS, contact the NRC Public Document Room (PDR) reference staff at 1-800-397-4209, 301-415-4737 or by e-mail to [pdr@nrc.gov](mailto:pdr@nrc.gov).

This meeting was held at the request of the companies and consisted of both prepared presentations on COL-related topics by company representatives and discussion between NRC staff and the company representatives on the presented topics. Opening remarks by the NRC staff emphasized that industry support of the agency's design-centered review approach is key to the overall COL process and schedule and that submittal of an acceptable COL application is the key to initiating milestones. The company representatives voiced concurrence with the staff during their opening remarks and stated a collective commitment to standardization of COL applications, plant design, and programs to support the design-centered review approach. Highlights of the companies' presentations and NRC/company discussions are provided in the following paragraphs.

Company representatives informed NRC that Dominion, NuStart, Entergy, and General Electric have formed the ESBWR Design-Centered Working Group (DCWG) with support by primary subcontractors Bechtel Power Corporation and Enercon Services. COL applications referencing the ESBWR design, currently undergoing design certification review by NRC, are planned for the North Anna, Grand Gulf, and River Bend sites. The DCWG members committed to standardization relative to licensing, plant design, operational programs, and a collaborative approach to site-specific issues.

The DCWG members addressed their collective response to the information requested by RIS 2006-06 as follows:

- The ESBWR DCWG has been formed and points of contact, at the executive level and licensing level, were identified. The companies had been coordinating efforts to enhance efficiency for over a year and had effectively become a “DCWG” prior to NRC’s issuance of RIS 2006-06. The newly-formed DCWG coordinates within the industry through NEI and NuStart.
- The DCWG anticipates that COL applications for both North Anna and Grand Gulf will be submitted concurrently in November 2007. Due to concurrent submittals, a reference COL (R-COL) is not currently designated but will be designated at an appropriate time. The staff expressed concern that staff resource and review schedule planning is based upon the concept of an R-COL application and subsequent COL (S-COL) applications as described in RIS 2006-06. The DCWG acknowledged this concern and, absent designation of the R-COL, committed to establishing a coordinated and streamlined communication process to support the concurrent COL applications. The COL application for River Bend will be submitted in May 2008 and will be considered an S-COL application. The DCWG identified aggressive schedule expectations including NRC certification of the ESBWR design in June 2009, issuance of COLs for North Anna and Grand Gulf in June 2010, and issuance of the River Bend COL in December 2010.
- Relative to requests for additional information (RAIs), the DCWG intends to implement an RAI response process modeled on the ESP safety review and ESBWR design control document (DCD) review process. The process details, agreeable to the NRC, would be established during the pre-application timeframe. There would be a 30-day goal for RAI responses with a 45-day goal for responses involving complex issues.
- The DCWG commits to standardization. COL applications will be submitted using a design-centered approach with each DCWG member having responsibility for authoring specific sections of the standard COL application. Application sections are designated as one of three types relative to standardization: 1) identical content, 2) some site-specific content, and 3) site-specific. A handout, entitled ESBWR standardization matrix, provided specificity to this topic by identifying the anticipated parts/sections of a COL application, the responsible DCWG member, and the type of section relative to standardization. For example, it is anticipated that 75 percent of the FSAR sections will be identical, 21 percent will contain some site-specific information, and 4 percent will contain wholly site-specific information. In addition, COL application standardization is being enhanced through a feedback loop with the design certification process with the intent of reducing COL items by enhancing format and content of the design control documentation.
- The DCWG stated that the need for pre-application topical reports is reduced because of the ongoing ESBWR design certification review. However, the DCWG identified potential topics for early interaction with the NRC staff to include selected operational programs (e.g., training, fire protection, radiation protection, security), quality assurance, emergency preparedness, limited work authorization, and COL application content.

- Regarding Early Site Permit (ESP) applications, it was noted that the North Anna application was submitted in September 2003 and DCWG expectations are that the ESP will be granted in 2007. The Grand Gulf ESP application was submitted in October 2003 and DCWG expectations are that the ESP will be granted in 2007. No ESP application is planned for River Bend.

The DCWG identified the following four key challenges related to their COL applications:

- NRC rulemaking/guidance. The DCWG expressed concern that the Part 52 rulemaking activities and development of corresponding guidance is ongoing concurrent with the DCWG's development of COL applications. The challenge is to preclude the concurrent activities from impacting issuance of the COLs.
- NRC process for DC and COL parallel reviews. The DCWG expressed concern that the staff's parallel DC and COL reviews may result in duplicative reviews of issues and thus negate the "one issue—one review—one resolution" approach of the agency's design-centered review process.
- Probabilistic risk assessment (PRA). The DCWG noted that the recent DG-1145 public workshop provided meaningful PRA guidance. However, the requisite level of detail to be provided in the plant-specific PRA for a COL application remains a challenge.
- ESP environmental finality. The DCWG expressed concern regarding NRC expectations relative to "new" and "significant" information to be addressed in the COL application Environmental Report compared to such information previously addressed in the approved ESP.

In closing, the DCWG reiterated its commitment to on-schedule, quality, standardized COL applications and committed to engaging with the NRC staff on a regular basis. The DCWG requested periodic NRC/DCWG workshops regarding COL application content and that a process be established for periodic pre-application meetings to address topics of mutual interest and to enhance communication and coordination.

The NRC staff expressed general concurrence with the DCWG presentation content and commitments and acknowledged that the identified key challenges are also areas of challenge for the NRC. The staff agreed to the need for enhanced communication and coordination and stated the staff's expectation that the DCWG would initiate development of a proposed process.

Members of the public were in attendance.

Please direct any inquires concerning this meeting to Tom Kevern at 301-415-0224 or [tak@nrc.gov](mailto:tak@nrc.gov).

**/RA/**

Thomas A. Kevern, Senior Project Manager  
ESBWR/ABWR Projects Branch  
Division of New Reactor Licensing  
Office of Nuclear Reactor Regulation

NRC Project Nos. 741, 744, 745

Attachments: 1. Attendees  
2. Agenda  
3. ESBWR Standardization Matrix (ADAMS ML061980462)  
4. Presentation: 1<sup>st</sup> Pre-Application Meeting with NRC (ADAMS ML061980454)

cc: See next page

Please direct any inquires concerning this meeting to Tom Kevern at 301-415-0224 or [tak@nrc.gov](mailto:tak@nrc.gov).

*/RA/*

Thomas A. Kevern, Senior Project Manager  
ESBWR/ABWR Projects Branch  
Division of New Reactor Licensing  
Office of Nuclear Reactor Regulation

NRC Project Nos. 741, 744, 745

Attachments: 1. Attendees  
2. Agenda  
3. ESBWR Standardization Matrix (ADAMS ML061980462)  
4. Presentation: 1<sup>st</sup> Pre-Application Meeting with NRC (ADAMS ML061980454)

cc: See next page

DISTRIBUTION:

NESB Rdg.  
TKevern  
ACubbage

E-Mail

SCoffin  
CNolan  
JTappert  
DMatthews  
NESB Group  
MGavrilas  
JDanna  
ACRS  
OGC  
PRA

\*See previous concurrence  
ADAMS Accession No. ML061980451-Pkg.

OFFICE	PM: NESB*	BC: NESB*
NAME	TKevern	ACubbage
DATE	07/24/2006	07/25/2006

OFFICIAL RECORD COPY

ESBWR

cc:

Mr. David H. Hinds, Manager  
ESBWR  
P.O. Box 780, M/C L60  
Wilmington, NC 28402-0780

Mr. George B. Stramback  
Manager, Regulatory Services  
GE Nuclear Energy  
1989 Little Orchard Street, M/C 747  
San Jose, CA 95125

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

Mr. Paul Gunter  
Nuclear Information & Resource Service  
1424 16th Street, NW, Suite 404  
Washington, DC 20036

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

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

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

Mr. Ron Simard  
6170 Masters Club Drive  
Suwanne, GA 30024

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

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

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

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

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

Mr. Ronald P. Vijuk  
Manager of Passive Plant Engineering  
AP1000 Project  
Westinghouse Electric Company  
P. O. Box 355  
Pittsburgh, PA 15230-0355

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

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

Mr. Jerald S. Holm  
Framatome ANP, Inc.  
3315 Old Forest Road  
P.O. Box 10935  
Lynchburg, VA 24506-0935

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

Mr. Eugene S. Grecheck  
Vice President, Nuclear Support Services  
Dominion Energy, Inc.  
5000 Dominion Blvd.  
Glen Allen, VA 23060

Mr. George A. Zinke  
Manager, Project Management  
Nuclear Business Development  
Entergy Nuclear, M-ECH-683  
1340 Echelon Parkway  
Jackson, MS 39213

E-Mail:

tom.miller@hq.doe.gov or  
tom.miller@nuclear.energy.gov  
sfrantz@morganlewis.com  
ksutton@morganlewis.com  
jgutierrez@morganlewis.com  
mwetterhahn@winston.com  
whorin@winston.com  
gcesare@enercon.com  
gerald.holm@framatome-anp.com  
eddie.grant@exeloncorp.com  
joseph\_hegner@dom.com  
mark.beaumont@wsms.com  
steven.hucik@ge.com  
patriciaL.campbell@ge.com  
bob.brown@ge.com  
david.hinds@ge.com  
chris.maslak@ge.com  
james1beard@ge.com  
louis.quintana@gene.ge.com  
wayne.massie@ge.com  
kathy.sedney@ge.com  
mgiles@entergy.com  
tansel.selekler@nuclear.energy.gov or  
tansel.seleklier@hq.doe.gov  
george.stramback@gene.ge.com



**Meeting with Industry's ESBWR Design-Centered Working Group (DCWG) Regarding Pre-Combined License Activities**

**July 14, 2006  
8:30 a.m. to 12:20 p.m.**

**U.S. Nuclear Regulatory Commission, Rockville, MD**

<b>Name</b>	<b>Organization</b>
Thomas Kevern	NRR/DNRL/NESB
Joe Hegner	Dominion
George Zinke	Entergy
Rick Wachowiak	General Electric (GE)
Amy Cubbage	NRC/DNRL
David Matthews	NRC/DNRL
Steven Hucik	GE
Marilyn Kray	NuStart
Eugene Grecheck	Dominion
Randy Hutchinson	Entergy
David Hinds	GE
Chris Nolan	NRC/NRR/DNRL
John Tappert	NRR/DNRL
Jim Lyons	NRR/DRA
Donnie Harrison	NRR/DRA
Shinichi Hayafune	Energy, USA
Hiroshi Yamazaki	Toshiba
Charles Brinkman	Westinghouse
Jenny Weil	McGraw-Hill
Joelle Starefos	NRR/DNRL
Russ Bell	NEI
Kurt Cozens	NRC/DNRL
Ronald E. Hagen	DOE/EIA
Tom Miller	DOE
John Polcyn	Bechtel



Ray Reith	GE
Mark Giles	Entergy
Steve Routh	Bechtel
John Atwell	Bechtel
Tony Banks	Dominion
Guy Cesare	NuStart
Marshall David	Enercon
Al Schneider	Enercon
Marvin Smith	Dominion
Eric Oesterle	NRC/DNRL
Geoff Quinn	Bechtel
Nobuyaki Ueda	IHI
Mark Beaumont	Washington Group
Mark Paul	Dominion
Russ Bell	NEI
Charles Willbanks	NRR
Malcolm Patterson	NRR
R. F. Smith-Keverr	DOE
Stephanie Coffin	NRR
Jeff Ciocco	NRR
Don Hickman	NRR
Steve Bloom	NRR
Vince Klco	NRC
Joseph Colaccino	NRC
Lynn Mrowca	NRC
Mike Tschiltz	NRC
Jerry Wilson	NRC
J. C. Dehmel	NRR
Neil Haggerty	NRC
Lauren Quinones	NRC
Alan Levin	AREVA
M. G. Kurilas	NRC
J. A. Mihalak	UniStar/Constellation

Kenneth Hughey	Entergy
Gina Borsh	Dominion
Rick Kingston	GE

**Agenda for Public Meeting Regarding  
ESBWR Design-Centered Working Group (DCWG) Meeting  
July 14, 2006**

8:30 a.m.	Introductions/Opening Remarks	All
8:45 a.m.	DCWG Overview	DCWG
	COLA Development	
<b>10:00 a.m.</b>	<b>Public Comment Opportunity</b>	<b>Public</b>
10:15 a.m.	Break	
10:30 a.m.	RIS 2006-06 Response Summary	DCWG
	Key Challenges	
	Next Steps	
12:00 noon	Closing Remarks	All
<b>12:05 p.m.</b>	<b>Public Comment Opportunity</b>	<b>Public</b>
12:20 p.m.	Adjourn	