

January 10, 2007

APPLICANT: General Electric Company

PROJECT: Project No. 52-010

SUBJECT: SUMMARY OF NOVEMBER 29, 2006, PUBLIC MEETING WITH
GENERAL ELECTRIC COMPANY REGARDING ESBWR
PROBABILISTIC RISK ASSESSMENT

On November 29, 2006, the U.S. Nuclear Regulatory Commission (NRC) held a public meeting at NRC Headquarters in Rockville, MD with representatives of General Electric Company (GE). The purpose of the meeting was to provide an opportunity for GE to update the staff regarding the ESBWR probabilistic risk assessment (PRA) and to discuss related regulatory issues. The meeting included GE presentations and discussion among GE representatives and the staff. Attendees are identified in Enclosure 1 and the meeting agenda is provided as Enclosure 2.

Presentation materials distributed at the meeting are available through the Agencywide Documents Access and Management System (ADAMS) at ADAMS Accession No. ML063630233. 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 documents 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 pdrc@nrc.gov.

Background

NRC regulations at 10 CFR 52.47 require a design-specific PRA to be submitted as part of an application for standard design certification. GE submitted the ESBWR PRA in Licensing Topical Report NEDO-33201 Revision 1, "ESBWR Probabilistic Risk Assessment." ESBWR Design Control Document (DCD) Tier 2, Chapter 19, "Probabilistic Risk Assessment and Severe Accidents," provides an overview of the design-specific PRA and presents assumptions and insights obtained from the PRA that are important to maintaining acceptable risk due to severe accidents. GE continues to further develop and refine the PRA and intends to submit revisions to NEDO-33201 and the DCD.

Meeting Highlights

The GE presentation addressed: (1) the status of responses to staff requests for additional information (RAIs) pertaining to Revision 1 of the PRA (i.e., version currently undergoing staff review); (2) the planned scope and schedule for Revision 2 of the PRA; (3) effect of ESBWR design changes on the PRA; (4) PRA analysis related to the regulatory treatment of non-safety systems (RTNSS); and (5) additional PRA model, uncertainty, and analysis topics.

GE summarized the current status of RAI responses and proposed that future efforts be focused on PRA Revision 2 with less emphasis on Revision 1 RAI responses. GE announced its intention to submit Revision 2 via a staggered submittal process commencing in April 2007 and continuing until October 2007. The staff concurred with the status of RAI responses and

acknowledged the inefficiency of addressing specific Revision 1 RAIs that may be subsumed by Revision 2 of the PRA. However, the staff expressed concern regarding the schedule for Revision 2 and the anticipated follow-on RAIs.

PRA Revision 2 will be comprehensive in scope. GE explained that Revision 2 will incorporate: (1) the isolation condenser system (ICS) design change; (2) digital control and instrumentation system architecture; (3) additional design detail for balance-of-plant systems; (4) a revised common-cause model (MGL method); (5) RTNSS-related considerations; (6) shutdown sequences; and (7) other changes to include administrative improvements/corrections. GE discussed the significance of the ICS design change and the selected DCIS architecture relative to the PRA. In addition, GE discussed the manner in which Revision 2 will address issues such as common-cause modeling, equipment test intervals, and RTNSS criteria. A summary of the information discussed is provided in the distributed presentation materials.

GE, in its summary, stated that Revision 2 will be an improved PRA that will address many of the staff's questions and technical issues. The staff expressed an overall favorable response to the approach for Revision 2. However, the staff expressed concern regarding the schedule and emphasized that RAIs would likely be generated during the review of Revision 2.

Attendees were notified of the Advisory Committee on Reactor Safeguards Reliability and Probabilistic Risk Assessment Subcommittee's upcoming public meeting at NRC headquarters, on December 14-15, 2006, to acquire an update on the ESBWR PRA from GE. One member of the public attended. No public meeting feedback forms were received.

Please direct any inquires concerning this meeting to me at 301-415-0224 or tak@nrc.gov.

/RA/

Thomas A. Kevern, Senior Project Manager
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Division of New Reactor Licensing
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Enclosures: 1. Attendees
2. Agenda

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**Public Meeting with General Electric Company
Regarding ESBWR Probabilistic Risk Assessment (PRA)
November 29, 2006, 8:00 a.m. to 5:00 p.m.
U.S. Nuclear Regulatory Commission, Rockville, MD**

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Agenda for Public Meeting
ESBWR Probabilistic Risk Assessment
November 29, 2006

8:00 a.m.	Introductions/Opening Remarks	All
8:15 a.m.	ESBWR PRA Update	GE
	<ul style="list-style-type: none">• Dominant accident sequences• Common cause failure method	
9:45 a.m.	Break	All
10:00 a.m.	PRA Update - Continued	GE
	<ul style="list-style-type: none">• Method for increasing failure rate for longer test intervals• Flooding, fire, seismic, & shutdown analysis• Impact of thermal-hydraulic uncertainties on PRA (e.g., success criteria for GDCS, PCCS)	
11:30 a.m.	Lunch	All
2:00 p.m.	Question/Answer Session - PRA issues	NRC/GE
3:30 p.m.	Break	All
3:45 p.m.	Question/Answer Session - Continued	NRC/GE
4:30 p.m.	Public Comment Opportunity	Public
4:45 p.m.	Wrap-Up	NRC
5:00 p.m.	Adjourn	

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