

September 28, 2012

COMPANY: BABCOCK & WILCOX MPOWER INC.

DESIGN: mPower™ REACTOR DESIGN

SUBJECT: SUMMARY OF JUNE 21, 2012, CATEGORY 2 OPEN AND CLOSED MEETING WITH BABCOCK & WILCOX MPOWER TO DISCUSS GALE CODE, CHAPTER 7 INSTRUMENTATION & CONTROLS DESIGN SPECIFIC REVIEW STANDARD DEVELOPMENT, AND HUMAN FACTORS ENGINEERING TECHNICAL REPORTS

On June 21, 2012, a public and closed meeting was held between the U.S. Nuclear Regulatory Commission (NRC), and representatives of Babcock & Wilcox (B&W) mPower, Inc., at NRC Headquarters, Executive Boulevard Building, 6003 Executive Boulevard, Rockville, MD. The purpose of this public and closed meeting was to discuss the GALE Code for small modular reactors, Design Specific Review Standard (DSRS) development for Chapter 7 Instrumentation & Controls and recently submitted proprietary Human Factors Engineering (HFE) technical reports by B&W mPower.

The public portion of the meeting began with a presentation on GALE Code and potential code features requiring modifications for evaluating integral pressurized water reactor (iPWR) applications. The presentation by NRC staff provided an initial evaluation of the PWR-GALE code along with a preliminary list of major features that need to be reviewed in the planning of any future revisions to the code in order to accommodate the technical review of applications based on small iPWR reactor designs. The preliminary list was presented in a handout and is available through the NRC's Agencywide Documents Access and Management System (ADAMS) at ML12173A102.

After the GALE Code presentation, the staff presented an update to the ongoing development of the Chapter 7 DSRS for Instrumentation & Controls. The staff handed out a current draft copy of DSRS Section 7.1, "Fundamental Design Principles" (ML12108A282) as well as the proposed Table of Contents for the entire DSRS Chapter 7 (ML12172A211). After a brief presentation, the staff opened up the meeting to questions and comments from the public. At this point, B&W mPower provided a list of comments (ML12178A196) from their review of Chapter 7 DSRS after it had been publicly posted in ADAMS prior to the meeting. The NRC staff responded by providing feedback agreeing that the staff would consider the input when next revising the section.

Following the public portion of the meeting, the session was closed to allow B&W mPower to present on their Human Factors program and development of the main control room. B&W mPower first discussed their review of the HFE plan and how it corresponded with the review guidance outlined in NUREG-0711, "Human Factors Engineering Program Review Model," Revision 2004. B&W mPower then presented an update to the current layout and design of

the main control room, including diagrams of the control room mock-up, safety panel mock-up, and the preliminary main safety panel layout.

The staff followed B&W mPower's presentation by providing feedback on several Human Factors Engineering technical reports submitted by B&W mPower. Staff feedback for the technical reports included noting the scope and approach of the reports were consistent with NUREG-0711. Additionally, staff identified that it is important to understand where risk important human actions fit into the HFE process. The staff also discussed how the language in the plan lacked definition and certain areas were not measurable. The feedback was sent via email to B&W mPower on September 19, 2012 (ML12269A262).

The meeting agenda and meeting attendees are included in Enclosures 1 and 2. B&W mPower's slide presentations are available through the ADAMS. The ADAMS accession number for the non-proprietary, redacted version of the HFE slide presentation is ML12178A615. ADAMS is the system that provides text and image files of NRC's public documents.

Documents are available electronically at the NRC's Electronic Reading Room at <http://www.nrc.gov/readingrm/adams.html>. If you do not have access to ADAMS or have problems accessing the documents located in ADAMS, contact the NRC Public Document Room (PDR) staff at 1-800-397-4209, fax 301-415-3548, TDD 1-800-635-4512, or <http://www.nrc.gov/reading-rm/contactpdr.html>.

Please direct any inquiries to Ross Moore at 301-415-6061 or Ross.Moore@nrc.gov, or to Joelle Starefos at 301-415-6091 or Joelle.Starefos@nrc.gov.

Sincerely,

/RA/

Ross P. Moore, Project Manager
Projects Branch
Division of Advanced Reactors and Rulemaking
Office of New Reactors

Project No.: PROJ0776

Enclosures:

1. Agenda
2. List of Attendees

cc w/encl: DC B&W mPower Mailing List

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ADAMS ACCESSION NO.: ML12270A381

NRC-001

OFFICE	PM:NRO/DARR/APRB	PM:NRO/DARR/APRB
NAME	RMoore	JStarefos
DATE	9/27/12	9/28/12

OFFICIAL RECORD COPY

AGENDA

TENTATIVE AGENDA FOR MEETING BETWEEN BABCOCK & WILCOX (B&W) AND THE U.S. NUCLEAR REGULATORY COMMISSION (NRC) STAFF

JUNE 21, 2012
ONE WHITE FLINT NORTH, ROOM O-3B04

TIME	TOPIC		LEAD
8:30 a.m. – 8:40 a.m.	Public Session	Opening Remarks & Introductions	NRC
8:40 a.m. – 9:30 a.m.		GALE Code ¹	NRC
9:30 a.m. – 9:35 a.m.		Public Comment	NRC
9:35 a.m. – 9:50 p.m.		Break	All
9:50 a.m. – 11:50 a.m.		DSRS Chapter 7 Discussion ¹	NRC
11:50 a.m. – 12:00p.m.		Public Comment then Closing of the Meeting to the Public	All
12:00 p.m. – 1:00 p.m.		Break for Lunch	All
1:00 p.m. – 1:05 p.m.	Closed Session	Closed Meeting Opening Remarks	NRC/B&W
1:05 p.m. – 2:30 p.m.		HFE Presentation ¹	B&W
2:30 p.m. – 2:45 p.m.		Break	All
2:45 p.m. – 4:30 p.m.		HFE Presentation ¹	B&W
4:30 p.m.		Adjourn	All

¹Select “Public Meetings” from www.nrc.gov/reactors/advanced/mpower.html for meeting-related publicly available material.

ATTENDANCE LIST

CATEGORY 2 OPEN AND CLOSED MEETING BETWEEN BABCOCK & WILCOX AND THE NRC REGARDING THE GALE CODE, CHAPTER 7 INSTRUMENTATION AND CONTROLS DESIGN SPECIFIC REVIEW STANDARD, AND HUMAN FACTORS ENGINEERING TECHNICAL REPORTS

JUNE 21, 2012, 8:30 AM – 4:30 PM
EXECUTIVE BOULEVARD BUILDING, 01-B015

NAME	ORGANIZATION
Ross Moore	NRC/NRO
Peter Hastings	mPower
Paul Kumar	B&W Licensing
Steven Pope	B&W mPower
Matt Humberstone	NRC/NRO
Brian Arnholt	B&W mPower
Carl Weber	NRC/NRO
Joe Williams	NRC/NRO
Sandra Sloan	B&W mPower
David Desaulniers	NRC/NRO
Daniel Laughman	B&W
Chester Poslusny	B&W mPower
Syed Haider	NRC/NRO
Jeff Halfinger	B&W
Stu Magruder	NRC/NRO
Yanely Malave	NRC/NRO
Jim Bongarra	NRC/NRO
Jacqwan Walker	NRC/NRO
Brian Green	NRC/NRO
Paul Pieringer	NRC/NRO
Joelle Starefos	NRC/NRO
Steve Fleger	NRC/RES
James Saldorini	B&W mPower
Paul Kumar	Bechtel Power
Chris Nassano	NGC
Paul Rogers	NGC
Charles McCarthy	NGC
Jan Mazza	NRC/NRO
Thomas Graham	B&W mPower

Mark Stofko	Westinghouse
Greg Crantson	NRC/NRO
Luis Betancourt	NRC/RES
Eugene Eagle, JR.	NRC/NRO
Ian Jung	NRC/NRO
Joe Ashcraft	NRC/NRO
Milton Concepcion	NRC/NRO
Khoi Nguyen	NRC/NRO
Denish Taneja	NRC/NRO
Erick Martinez	NRC/NRO
John Thorp	NRC/NRR
Tim Meneely	Westinghouse
James Sejvar	Westinghouse
Larry Eisenstatt	Westinghouse
Milton Rejcek	STP
Steve Kane	Areva
Mark Stofko	Westinghouse
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(Revised 09/26/2012)

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