

September 20, 2013

COMPANY: BABCOCK & WILCOX MPOWER, INC.

DESIGN: MPOWER™ REACTOR DESIGN

SUBJECT: SUMMARY OF JUNE 25, 2013, CLOSED MEETING WITH BABCOCK & WILCOX MPOWER, INC., TO DISCUSS THE MPOWER™ DESIGN PLANT LAYOUT AND CONSTRUCTION, VALIDATION OF THE SYSTEM FOR ANALYSIS OF SOIL-STRUCTURE INTERACTION CODE, THE RANDOM VIBRATION TECHNOLOGY TOPICAL REPORT, AND HYDROLOGY

On June 25, 2013, a public meeting was held between the U.S. Nuclear Regulatory Commission (NRC), and representatives of Babcock & Wilcox mPower, Inc. (B&W mPower), at NRC Headquarters, One White Flint North, 11555 Rockville Pike, Rockville, MD. The purpose of the meeting was to discuss topics related to plant layout and construction, validation of the system for analysis of soil-structure interaction code, the random vibration technology topical report, steel concrete (SC) construction and seismic and hydrology issues.

B&W mPower presented information on plant layout and construction, with an emphasis on planning and incorporation of SC construction into the design. The staff queried the vendor about SC, including layout plans, impact on plant maintenance and inspections, and potential design elements. The staff communicated the potential impact on schedule when a new methodology is introduced for review within the design certification application.

B&W mPower then presented information on the use of random vibration theory (RVT) for seismic soil-structure interaction (SSI) analysis. In anticipation of the Topical Report on this subject, the staff and B&W mPower discussed the main computational steps in the RVT approach. The staff was assured by the vendor that many of the technical questions being discussed would be answered in the coming topical report about RVT. In addition, B&W mPower presented on the validation of the Structural Analysis Software System Interface (SASSI) for deeply-embedded structures and on hydrology and its relationship with seismic stability

The meeting agenda and meeting attendees are included in Enclosures 1 and 2. B&W mPower's slide presentations are available through the Agencywide Documents Access and Management System (ADAMS). The ADAMS accession numbers for the non-proprietary, redacted versions of the slide presentations are ML13178A087, ML13178A089, and ML13178A090. 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/reading-rm/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, 301-415-4737, or [pdr@nrc.gov](mailto:pdr@nrc.gov).

Please direct any inquiries to me at 301-415-2988 or [Reed.Anzalone@nrc.gov](mailto:Reed.Anzalone@nrc.gov), or Joelle Starefos at 301-415-6091 or [Joelle.Starefos@nrc.gov](mailto:Joelle.Starefos@nrc.gov).

Sincerely,  
*/RA/*

Reed Anzalone, Project Manager  
Small Modular Reactor Licensing Branch 1  
Division of Advanced Reactors and Rulemaking  
Office of New Reactors

Project No.: PROJ0776

Enclosure:    1. Agenda  
                  2. List of attendees

cc: Distribution via ListServ

Please direct any inquiries to me at 301-415-2988 or [Reed.Anzalone@nrc.gov](mailto:Reed.Anzalone@nrc.gov), or Joelle Starefos at 301-415-6091 or [Joelle.Starefos@nrc.gov](mailto:Joelle.Starefos@nrc.gov).

Sincerely,  
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Small Modular Reactor Licensing Branch 1  
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**ADAMS ACCESSION No: ML13206A213**

**NRC-001**

|        |                    |                    |
|--------|--------------------|--------------------|
| OFFICE | PM:NRO/DARR/SMRLB1 | PM:NRO/DARR/SMRLB1 |
| NAME   | RAnzalone          | JStarefos          |
| DATE   | 09/20/2013         | 09/20/2013         |

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## AGENDA

### BABCOCK & WILCOX MPOWER, INC. (B&W) MEETING WITH THE U.S. NUCLEAR REGULATORY COMMISSION (NRC)

Tuesday, June 25, 2013; 8:00 a.m. – 4:30 p.m.

| TIME                | TOPIC  | LEAD    |
|---------------------|--|---------|
| 8:00 am             | Opening  | NRC     |
| 8:05 am – 8:35 am   | Plant Layout & Construction Overview   | B&W     |
| 8:35 am – 10:15 am  | Steel Concrete (SC) Construction   | B&W     |
| 10:15 am – 10:30 am | <b>Break</b>   | ALL     |
| 10:30 am – 12:00 pm | Steel Concrete (SC) Construction (cont'd)  | B&W     |
| 12:00 pm – 1:00 pm  | <b>Lunch</b>   | ALL     |
| 1:00 pm – 2:45 pm   | Implementation of Random Vibration Technology (RVT)  | B&W     |
| 2:45 pm – 3:00 pm   | <b>Break</b>   | ALL     |
| 3:00 pm – 3:45 pm   | Validation of System for Analysis of Soil-Structure Interaction (SASSI) for Deeply Embedded Structures | B&W     |
| 3:45pm – 4:15pm     | Stability/Hydrology  | B&W     |
| 4:15pm – 4:30 pm    | Summary and Closing  | B&W/NRC |

## ATTENDANCE LIST

### Closed Meeting Between B&W mPower and the NRC Regarding Plant Layout and Construction, RVT Topical Report, SASSI Validation, and Hydrology

Tuesday, September 25, 2013, 8:00a.m. – 4:30p.m.  
11555 Rockville Pike, Room O-4B06  
Rockville, MD 20852

| NAME                         | ORGANIZATION                           |
|------------------------------|--|
| Peter Hastings               | Generation mPower                      |
| Ronald Beck                  | Bechtel                                |
| Jack Demitz                  | Bechtel                                |
| Steve Shilthelm              | B&W mPower                             |
| Jose Pires                   | NRC/RES                                |
| Kirk Volovar                 | Bechtel                                |
| Pete Gaillard                | TVA                                    |
| Mark D. Notich               | NRC/NRO                                |
| Samir Chakrabarti            | NRC/NRO                                |
| George Thomas                | NRC/NRO                                |
| Jim Saldarini                | Bechtel Power                          |
| Sanj Malushte                | Bechtel Power                          |
| Chester Poslusny             | B&W mPower                             |
| Manas Chakravarty            | NRC/NRO                                |
| Abdul H. Kazi                | NRC/NRO                                |
| Farhang Ostadan              | Bechtel                                |
| Reed Anzalone                | NRC/NRO                                |
| Luisette Candelario Quintana | NRC/NRO                                |
| Sunwoo Park                  | NRC/NRO                                |
| Alissa Neuhausen             | NRC/NRO                                |
| Madhumita Sircar             | NRC/RES                                |
| Robert P. Kennedy            | RPK Structural Mechanics<br>Consulting |
| Mark McBride                 | NRC/NRO                                |
| Carl Weber                   | NRC/NRO                                |
| Martha Shields               | DOE                                    |
| Martin Reifschneider         | Bechtel/mPower                         |
| Angela McAlpin               | Bechtel/mPower                         |
| Adam Lineberry               | Bechtel/mPower                         |
| Stu Magruder                 | NRC/NRO                                |
| Joelle Starefos              | NRC/NRO                                |
| Thom Herrity                 | NRC/RES                                |
| Hernando Candra              | NRC/RES                                |

|                  |                |
|------------------|----------------|
| Stephanie Devlin | NRC/NRO        |
| Vladimir Graizer | NRC/NRO        |
| Carlos Coronado  | Bechtel mPower |
| Michael McHood   | Bechtel        |
| Kit Ng           | Bechtel        |
| Lisa Anderson    | Bechtel/mPower |
| Jan Mazza        | NRC/NRO        |
| Ann Hove         | NRC/OGC        |
| Steve Shapiro    | Bechtel        |
| Lewis Hartless   | B&W            |
| Matt Humberstone | NRC/NRO        |
| Perry Green      | Bechtel        |
| Ross Moore       | NRC/NRO        |
| Weijun Wang      | NRC/NRO        |