

April 23, 2014

COMPANY: BABCOCK AND WILCOX MPOWER INC.

DESIGN: BABCOCK AND WILCOX MPOWER™ SMALL MODULAR REACTOR DESIGN

SUBJECT: SUMMARY OF APRIL 8-9, 2014, CLOSED MEETING REGARDING
DISCUSSION OF THE PHYSICAL SECURITY PLAN TEMPLATE DEVELOPED
FOR THE BABCOCK AND WILCOX MPOWER SMALL MODULAR REACTOR
DESIGN

INTRODUCTION

On June 25, 2013, Babcock and Wilcox (B&W) mPower, Inc, submitted a letter requesting NRC staff review and endorsement of a proposed Physical Security Plan (PSP) template intended to be used by an applicant that references the mPower reactor design in an application for a 10 CFR Part 52 combined license or a 10 CFR Part 50 operating license application. The contents of the B&W PSP template and supporting documents are safeguards information, security related information and/or confidential commercial information, and are protected from public disclosure.

A closed meeting was held between the U.S. Nuclear Regulatory Commission (NRC) and B&W mPower Inc. on April 8 and 9, 2014 at the B&W offices, 109 Ramsey Place Lynchburg, Virginia. The purpose of this meeting was for NRC staff to discuss B&W's proposed Physical Security Plan (PSP) template and supporting documents developed for the B&W mPower small modular reactor design. The content of the proposed standard PSP template includes descriptions of engineered controls, administrative controls, and management systems for a physical protection system (PPS) as well as security programs required to meet 10 CFR Part 73, "Physical Protection of Plants and Material."

PARTICIPANTS

The following NRC staff members from the Office of New Reactors (NRO) and the Office of Nuclear Security and Incident Response (NSIR) participated:

Jan Mazza (NRO, Project Manager)

Pete Lee (NSIR)

The following individuals/organizations representing the mPower design, participated:

Darrell Gardner, Generation mPower

Mike Brown, B&W

Steve Schilthelm, B&W

Gary Atkins, Tennessee Valley Authority

James Noel, B&W

Ron Kelmenson, Bechtel

DOCUMENTS DISCUSSED

- MPWR-TECR-005086, B&W mPower Standard Plant Physical Security Plan Template, Revision 0, June 2013
- Site A, Conceptual Security System Design, Preliminary Estimate for Probability of Effectiveness Evaluation
- Vehicle Borne Improvised Explosive Device, Vulnerability Assessment of Intruder Delay Field
- E-mail from J. Starefos to G. Vytlačil, et.al., PUBLIC, RE: Information for April 8-9 Discussion on PSP Template (ADAMS Accession No. ML14104A864)

SUMMARY

The proposed standard PSP template demonstrates how B&W has considered security early in the design of the mPower reactor. The proposed standard PSP template was based on the design and security information available as of the date of the template, June 2013. The content of the proposed standard B&W mPower PSP template includes descriptions of how certain regulatory requirements will be met. While aspects of engineered controls providing detection, assessment, and delay systems are captured, additional descriptions are needed for the standard PSP template (e.g., addressing all applicable regulatory requirements, updating information to reflect a final design of the mPower reactor, providing certain details of design functions, etc.).

Additional descriptions and level of detail are necessary in the PSP template to meet security performance and prescriptive regulatory requirements. The areas of improvement discussed during the meeting are summarized below:

- Address in the PSP, all regulatory requirements of 10 CFR Part 73 that are applicable for a nuclear power reactor.
- Provide sufficient detail of how specific components in the design of a physical protection system (PPS) will provide the required security functions to satisfy prescriptive and performance requirements to protect against the design basis threat (DBT) for radiological sabotage. Information on vital equipment, target sets, minimum safe standoff distance, reliability and availability of systems, and defense-in-depth should be included.
- Provide sufficient details to meet regulatory requirements of security programs in the descriptions of processes, procedures, and policies, related to the establishment and implementation of management systems including the required organization.

Appendix B and Appendix C of 10 CFR Part 73, respectively, were not included in the documents requested to be endorsed. B&W may consider including the T&QP and SCP as part of the standard PSP template in the future. No regulatory decisions or findings were requested or provided during the meeting.

Please direct any inquiries to me at 301-415-0498, email: Jan.Mazza@nrc.gov, or Joelle Starefos at 301-415-6091, email: Joelle.Starefos@nrc.gov.

Sincerely,
/RA/

Jan Mazza, Project Manager
Small Modular Licensing Branch 1
Division of Advanced Reactors and
Rulemaking
Office of New Reactors

Project No.: 0776

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DATE	4/22/2014	4/17/2014	4/22/2014

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