

#### babcock & wilcox mPower

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November 27, 2012

MPWR-LTR-12-00100

U.S. Nuclear Regulatory Commission (NRC) ATTN: Document Control Desk 11555 Rockville Pike Rockville, MD 20852-2738

Babcock & Wilcox mPower, Inc. (B&W mPower) Docket Number-PROJ0776 Project Number-776

Subject: Submittal of Babcock & Wilcox mPower Security Staffing Strategy Slides

A closed meeting is scheduled to be conducted between B&W mPower and NRC staff in Rockville, MD on December 13, 2012. The purpose of the meeting is to discuss a strategy for justifying security staffing for the mPower<sup>™</sup> Reactor and plans for submittal of a topical report related to this subject.

We are providing with this letter the slides to be presented during the meeting. A portion of the information, provided in the slides, contains Confidential Commercial Information (CCI). Enclosure 1 is a signed affidavit that provides the justification for withholding the CCI information identified in the slide package.

Enclosure 2 is the version of the slides that contains CCI marked in brackets. We request that this version be withheld from public disclosure in accordance with the requirements of 10 CFR 2.390. Further, Enclosure 2 includes a number of slides that include security related information (SRI), as indicated, that is also requested to be withheld under 10 CFR 2.390. Enclosure 3 is a redacted version of the slides that can be released to the public.

Questions concerning this submittal may be directed to Jeff Halfinger at 434-316-7507 (email: jahalfinger@babcock.com) or Peter Hastings at 434-382-9791 (email: pshastings@generationmpower.com).

effrev A. Halfinder

VP/NSSS Technology B&W mPower

JAH/jlr

CC:

Enclosures:

1. Affidavit

2. Security Staffing Strategy Slides (CCI and SRI)

3. Security Staffing Strategy Slides (Redacted)

Joelle L. Starefos, NRC, TWFN 9-F-27 Stewart L. Magruder, Jr., NRC, TWFN 9-F-27

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#### Enclosure 1

#### AFFIDAVIT OF Jeffrey A. Halfinger

#### STATE OF VIRGINIA

#### **CITY OF LYNCHBURG**

I, Jeffrey A. Halfinger, being duly sworn, do hereby depose and say:

1. I am a citizen of the United States of America. I am a resident of Lynchburg, Virginia. My birth date is November 4<sup>th</sup>, 1961.

2. I am the Vice President, Babcock & Wilcox mPower (B&W mPower) NSSS Technology, located in Lynchburg, Virginia.

I have held this position since June 1, 2010. I have personal knowledge of the facts set forth in this affidavit, and if called and sworn as a witness in a deposition or before any court, I could and would testify competently under oath to these facts.

3. B&W mPower requests that the NRC withhold from public disclosure the information marked as "B&W Confidential Commercial Information" regarding certain design information being submitted to the NRC by the B&W mPower letter number MPWR-LTR-12-00100. This information is included in an enclosure to that letter: Security Staffing Strategy Slides.

4. I have personal knowledge of the criteria and procedures used by B&W mPower in designating confidential commercial or financial information as proprietary and have been delegated the function to review the information to identify proprietary information and authorized to apply for its withholding. The need for confidentiality is driven by the following:

a) The information requested to be withheld reveals the distinguishing aspects of a design process (or component, structure, tool, method, etc.) whose use by any of B&W mPower's competitors, without a license from the submitter, would constitute a competitive economic disadvantage to B&W mPower.

b) Use by a competitor of the information requested to be withheld would reduce a competitor's expenditure of resources, or improve its competitive position, in the design, manufacture, shipment, installation, assurance of quality, or licensing of a similar product.

c) The information requested to be withheld reveals aspects of privately funded development plans or programs of commercial value to B&W mPower.

d) The information requested to be withheld consists of patentable ideas.

5. Specifically, the information identified in paragraph 3 above, is classified as proprietary because B&W mPower has developed the conceptual and technical approaches regarding details of the design of the B&W mPower<sup>™</sup> Reactor systems, structures, and components and associated analysis related to security staffing, disclosure of which could adversely affect B&W mPower's competitive position by informing competitors of the degree of maturity and viability of the design, thereby motivating them to increase efforts to develop competing technologies. These features of the reactor design were privately funded by B&W mPower and are of commercial value to B&W mPower because of their nature in providing key elements of the B&W mPower<sup>™</sup> reactor design analysis. All or parts of the approach described in the withheld material is patentable.

I declare under penalty of perjury under the laws of the United States of America that the foregoing is a true and correct statement of facts.

Subscribed and sworn to before me this

day of November, 2012.

Notary Public



My commission expires: 8 - 26 - 15

### Enclosure 3 Security Staffing Slides (Redacted)

# generation



## Security Staffing Strategy for the B&W mPower™ Plant (Redacted Version) December 13, 2012

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This is a pre-application document and includes preliminary B&W mPower Reactor design or design supporting information and is subject to further internal review, revision, or verification.





- Objectives
- Applicable Regulatory Requirements
- Topical Report Criteria
- Prospective B&W mPower Reactor Staffing from January 2011 TR
- Industry Concerns
- Key Points from January 2011 TR
- Interim Discussion
- Strategy for Developing Security Staffing Topical Report
- Path Forward
- Conclusions



- Revisit security staffing discussion in 2011 technical report
- Discuss plans to develop and submit topical report
- Interact with NRC staff on current thoughts for analysis strategy and report content
- Outline schedule and future interactions with staff

Reach agreement on an approach for timely approval of the methodology and criteria for security staffing for the mPower design to support efficient design certification and licensing



## **Applicable Regulatory Requirements**

### • 10 CFR 73.55 (d)(1)

The licensee shall establish and maintain a security organization that is designed, staffed, trained, qualified, and equipped to implement the physical protection program in accordance with the requirements of this section

### • 10 CFR 73.55 (d)(2)

The security organization must include ...

(ii) At least one member, onsite and available at all times, who has the authority to direct the activities of the security organization and who is assigned no other duties that would interfere with this individual's ability to perform these duties in accordance with the security plans and the licensee protective strategy

### • 10 CFR 73.55 (i)(4)(ii)

- (B) Continuously staff each alarm station with at least one trained and qualified alarm station operator. The alarm station operator must not be assigned other duties or responsibilities which would interfere with the ability to execute the functions described in § 73.55(i)(4)(i) of this section
- 10 CFR 73.55 (k)(5)
  - (ii) The number of armed responders shall not be less than ten (10)



## **Topical Report Criteria (LIC-500)**

- The report deals with a specific safety-related subject regarding a nuclear power plant that requires a safety evaluation by the NRC staff
- The TR is expected to be used by multiple licensees in a number of requests for licensing actions—COLAs
- The TR will contain complete and detailed information on the methodology and acceptance criteria
- NRC approval of the report will increase the efficiency of the review process for applications that reference the report





## **Regulatory Requirements**

**MINIMUM STAFFING** 

FUNCTION	MINIMUM/SHIFT
Supervisor	1
CAS/SAS Operators	2
Armed Responders	10
TOTAL	13





## **Preliminary Staffing Scoping**

### PROSPECTIVE B&W mPOWER REACTOR STAFFING\*

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\*From "B&W *mPower*™ Reactor Physical Security Design and Program Considerations," Technical Report R0003-08-002708-000, January 2011.

[CCI per Affidavit 4(a)-(d)]





## **Industry Feedback on Staffing**

- Security O&M costs can't be viably distributed over small rate-payer structure for small modular reactors (SMRs)
- Performance as well as compliance needs to be considered in developing staffing requirements for SMRs
- Need agreed-upon approach for demonstrating optimized staffing levels for SMRs => certainty





### **KEY POINTS FROM TR R0003-08-002708-000**

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[CCI per Affidavit 4(a)-(d)]



## **KEY POINTS FROM TR R0003-08-002708-000 (cont.)**



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[CCI per Affidavit 4(a)-(d)]

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## KEY POINTS FROM TR R0003-08-002708-000 (cont.)

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[CCI per Affidavit 4(a)-(d)]





## INTERIM DISCUSSION



## **Strategy for Developing Security Staffing Topical Report**

- Report Objectives
- Proposed Report Contents



## **Topical Report Objectives**

Expand upon Staffing Points in 2011 TR

[CCI per Affidavit 4(a)-(d)]

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## **Proposed Report Content**

• 2011 TR Discussion

[CCI per Affidavit 4(a)-(d)]

generation *mPower* Path Forward

[CCI per Affidavit 4(a)-(d)]

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Path Forward (cont.)

- Develop report
- Meet with NRC Prior to Submittal Date
- Submit Report to NRC



## Conclusions

- "Security-informing" is an integral part of the mPower design process
- An important part of that approach is reaching agreement with NRC on acceptable methods and criteria for establishing optimum security staffing levels
- Optimization of staffing levels is a "signature" SMR issue, and establishing methodology and criteria for security staffing in particular is important enough to warrant early review and resolution
- A topical report provides the mechanism to resolve generic methodology and criteria in a timely way which can then be leveraged to improve the efficiency and certainty of CP/OLA/COLA reviews