



babcock & wilcox nuclear energy

• 109 ramsey place • lynchburg, va 24501 • phone 434.316.7592
• fax 434.316.7534 • www.babcock.com

October 7, 2011

BW-JAH-2011-266

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

Babcock & Wilcox Nuclear Energy, Inc.
Docket Number-PROJ0776
Project Number-776

Subject: Submittal of Babcock & Wilcox Nuclear Energy, Inc. (B&W NE) Design Data to Support NRC Pre-Application Modeling of the mPower™ Reactor with MELCOR

NRC requested support from our engineering staff to review preliminary NRC assumptions dealing with design inputs that could be used to perform computer analysis runs using the MELCOR code. In addition, discussions were held between our staffs to clarify what design information was needed and what could be provided given the evolving nature of the reactor design in several areas.

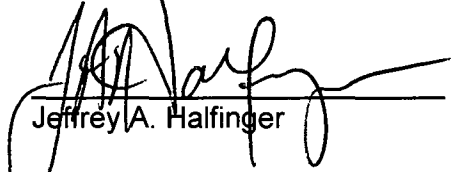
To facilitate the collection and transmission of the NRC requested data, spreadsheets and figures containing information currently used by the NRC staff were provided. Attachment 1 (pages 1 - 7) contains the NRC provided spreadsheets and figures which have been updated to reflect current design information. Attachment 1 (pages 8 - 13), also contains information requested by NRC staff for modeling control rod assembly withdrawal. The data provided reflects a "snapshot" in time for specific design areas for the mPower reactor.

Please note that the information in Attachment 1 is preliminary, subject to change, and is being provided solely to enable the NRC to perform certain analysis to determine if the code of interest can adequately and effectively model the mPower reactor. Once the NRC has completed its runs, we request the sharing of the results as the insights gained will have potential value to us in our design processes.

Attachment 1 contains Commercial Confidential Information (CCI) and that has been identified by brackets as appropriate with appropriate CCI markings. We request that Attachment 1 be withheld from public disclosure in accordance with the requirements of 10 CFR 2.390. A redacted version of Attachment 1 is provided as Attachment 2.

Attachment 3 is an affidavit that provides a justification for withholding the identified CCI information discussed above.

Questions concerning this submittal may be directed to Jeff Halfinger at 434-316-7507 (email: jahalfinger@babcock.com) or T. J. Kim at 434-382-9791 (email: tjkim@babcock.com).



Jeffrey A. Halfinger
VP, Technology Development
B&W NE

JAH/jlr

Attachments: 1. Subject Design Data Information (CCI)
 2. Subject Design Data Information (Redacted)
 3. Affidavit

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

ATTACHMENT 2

Subject Design Data Information (Redacted)

13 pages

babcock & wilcox nuclear energy, inc., a Babcock & Wilcox company

Attachment 2

Table 1, S. Vasvada et al., "Clarifications Related to the Requests for Additional Information (RAIs) Applicable to the Development of TRACE and MELCOR Input Decks, Energy Research Inc Memorandum, NRC2011-08-22, August 22, 2011.

[illegible]

Attachment 2

Table 1, S. Vasvada et al., .., "Clarifications Related to the Requests for Additional Information (RAIs) Applicable to the Development of TRACE and MELCOR Input Decks, Energy Research Inc Memorandum, NRC2011-08-22, August 22, 2011.

Parameter	Units	Value Currently Used	Revised Value
(Note: All elevations are from the inside bottom of lower head)			

Attachment 2

[

]

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

Table 2, S. Vasvada et al., "Clarifications Related to Requests for Additional Information (RAIs) Applicable to the Development of TRACE and MELCOR Input Decks, Energy Research Inc. Memorandum, NRC 2011-08-22, August 22, 2011

Number	Compartment name; Information requested
--------	---

[

CONTAINS mPOWER PROPRIETARY INFORMATION - NOT FOR DISTRIBUTION

[

1

2

]

Attachment 2

CONTAINS mPOWER PROPRIETARY INFORMATION - NOT FOR DISTRIBUTION

[

]

Attachment 2

[

]

[

]

[

]

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

Attachment 2

[

]

Attachment 2

[

]

Attachment 2

Prompt Neutron Lifetime, Delayed Neutron Fractions, and Precursor Decay Constants
Beginning, Middle, and End of Cycle

[

]

Attachment 3

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 4th, 1961.

2. I am the Vice President for Babcock & Wilcox Nuclear Energy, Inc. (B&W NE), 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 NE 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 NE letter dated October 7, 2011. This information is included in an attachment to that letter: a matrix of design inputs for the mPower Reactor design to support an NRC MELCOR computer code run.

4. I have personal knowledge of the criteria and procedures used by B&W NE 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 process (or component, structure, tool, method, etc.) whose use by any of B&W NE's competitors, without a license from the submitter, would constitute a competitive economic disadvantage to B&W NE.

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

babcock & wilcox nuclear energy, inc., a Babcock & Wilcox company

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 NE.

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 NE has developed the conceptual and technical approaches regarding details of the B&W mPower™ Reactor fuel and core design, structural design, plant layout, and associated analysis, disclosure of which could adversely affect B&W NE's competitive position by informing competitors of the degree of maturity and viability of the program, thereby motivating them to increase efforts to develop competing technologies. These features of the reactor design were privately funded by B&W NE and are of commercial value to B&W NE because of their nature in providing key elements of the B&W mPower™ reactor design analysis. All or parts of the approach described in the withheld material are 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.


Jeffrey A. Haffinger

Subscribed and sworn to before me this 7 day of October, 2011.


Notary Public

My commission expires: Aug. 31, 2015