

EDO Principal Correspondence Control

FROM: DUE: 05/27/09

EDO CONTROL: G20090264  
DOC DT: 04/28/09  
FINAL REPLY:

R. E. Reimels, President  
Christofer Mowry, Senior Vice President  
The Babcox & Wilcox Company

TO:

Chairman Klein

FOR SIGNATURE OF :

\*\* GRN \*\*

CRC NO: 09-0191

Johnson, NRO

DESC:

ROUTING:

Intent to Submit an Application for Design  
Certification for B&W mPower Commercial Advanced  
Light Water Reactor [EDATS: SECY-2009-0221]

Borchardt  
Virgilio  
Mallett  
Ash  
Ordaz  
Cyr/Burns  
Diaz-Toro, OEDO

DATE: 05/05/09

ASSIGNED TO:

CONTACT:

NRO

Johnson

SPECIAL INSTRUCTIONS OR REMARKS:

Template: SECY-017

E-REDS: SECY-01

# EDATS

Electronic Document and Action Tracking System

**EDATS Number:** SECY-2009-0221

**Source:** SECY

## General Information

**Assigned To:** NRO

**OEDO Due Date:** 5/27/2009 5:00 PM

**Other Assignees:**

**SECY Due Date:** 5/27/2009 5:00 PM

**Subject:** Intent to Submit an Application for Design Certification for B&W mPower Commercial Advanced Light Water Reactor

**Description:**

**CC Routing:** NONE

**ADAMS Accession Numbers - Incoming:** NONE

**Response/Package:** NONE

## Other Information

**Cross Reference Number:** G20090264, LTR-09-0191

**Staff Initiated:** NO

**Related Task:**

**Recurring Item:** NO

**File Routing:** EDATS

**Agency Lesson Learned:** NO

**Roadmap Item:** NO

## Process Information

**Action Type:** Letter

**Priority:** Medium

**Sensitivity:** None

**Signature Level:** NRO

**Urgency:** NO

**OEDO Concurrence:** NO

**OCM Concurrence:** NO

**OCA Concurrence:** NO

**Special Instructions:**

## Document Information

**Originator Name:** R. E. Reimels and Christofer Mowry

**Date of Incoming:** 4/28/2009

**Originating Organization:** Babcock & Wilcox (B&W)

**Document Received by SECY Date:** 5/5/2009

**Addressee:** Chairman Klein

**Date Response Requested by Originator:** NONE

**Incoming Task Received:** Letter

OFFICE OF THE SECRETARY  
CORRESPONDENCE CONTROL TICKET

Date Printed: May 05, 2009 09:08

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**PAPER NUMBER:** LTR-09-0191 **LOGGING DATE:** 05/05/2009  
**ACTION OFFICE:** EDO

**AUTHOR:** R. Reimels  
**AFFILIATION:** B&W  
**ADDRESSEE:** Dale Klein  
**SUBJECT:** Intent to submit an application for Design Certification for B&E mPower commercial Advanced Light Water Reactor...

**ACTION:** Direct Reply  
**DISTRIBUTION:** RF, SECY to Ack

**LETTER DATE:** 04/28/2009  
**ACKNOWLEDGED:** No  
**SPECIAL HANDLING:**

**NOTES:**

**FILE LOCATION:** ADAMS  
**DATE DUE:** 05/27/2009 **DATE SIGNED:**

EDO --G20090264



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28 April, 2009

The Honorable Dale E. Klein  
Chairman, United States Nuclear Regulatory Commission  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555-0001

Dear Chairman Klein:

We are hereby notifying the Nuclear Regulatory Commission (NRC) that The Babcock & Wilcox Company (B&W) intends to submit an application for Design Certification for our B&W mPower™ commercial Advanced Light Water Reactor (ALWR), in accordance with the process defined in The Code of Federal Regulations, Part 52 (10CFR52). The B&W mPower™ design is a modular 125MWe evolved-PWR featuring an integral nuclear steam supply system (NSSS) design. This NSSS design places the nuclear core, steam generator, primary coolant circuit, and control rod drive mechanisms inside a single reactor pressure vessel without any large primary system penetrations or external piping.

Our design approach utilizes current industry-standard PWR fuel, together with a robust thermal-hydraulic and neutronic design that provides substantial margins to established operating parameters and safety limits under normal, upset, and accident conditions. In addition, the B&W mPower™ utilizes passive safety features to simplify the plant design and enhance overall plant safety performance and reliability.

B&W has been in business discussions with several leading utilities and potential industrial customers. We have received formal letters of endorsement from the Tennessee Valley Authority (TVA) and Exelon expressing support for the development of the B&W mPower™ reactor system. B&W is also signatory to a MOU with a group of regional domestic utilities for the purpose of evaluating our reactor as a solution to their power generation needs. We are forming a customer Advisory Council composed of 5 interested utilities and potential industrial users to support the reactor design, deployment, and licensing activities. In addition, B&W has received a Letter of Intent from TVA to begin evaluating a site in Tennessee for a potential license application.

We are prepared to begin pre-licensing activities with NRC in June of 2009. These pre-licensing activities include meetings with NRC staff to present technical details of the design, to develop a strategy for submittal of the application, and to align expectations on the technical information required for submittal in Topical Reports beginning in late 2009. B&W intends to submit the application for design certification in the first quarter of calendar year 2011.

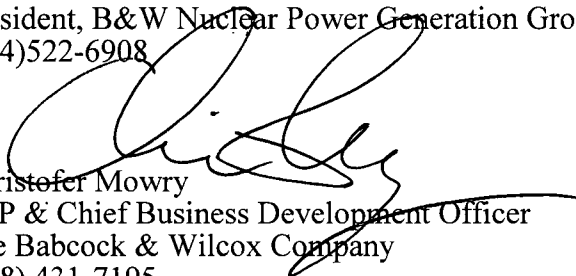
Based on the substantial design and planning work that we have already completed, together with our ongoing and substantive discussions with a diverse group of potential industry customers, we believe that the B&W mPower™ ALWR will fill an important market need in the United States in the coming decade and beyond. Our design offers a high degree of flexibility while providing improved confidence in plant construction schedules and costs through extensive use of our own vertically integrated domestic manufacturing infrastructure.

We have discussed our general plans with members of your staff and explored the NRC resource requirements necessary to support a review of our design starting in 2011. We are hereby requesting your assistance in planning for the assignment of the necessary resources to accomplish this review in a timely manner. If you have questions or need additional information, please contact us or the B&W mPower™ Program Director, Jeff Halfinger, at 434-522-5941.

Sincerely,



R.E. Reimels  
President, B&W Nuclear Power Generation Group, Inc.  
(434)522-6908



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Cc: Thomas Kenyon  
William Reckley  
Michael Mayfield