

March 8, 2013

Mr. Jeffrey A. Halfinger, Vice President
NSSS Technology
Babcock & Wilcox mPower, Inc.
109 Ramsey Place
Lynchburg, VA 24501-6722

SUBJECT: ACCEPTANCE FOR REVIEW OF BABCOCK & WILCOX TOPICAL REPORT
R003-03-002106, "CORE NUCLEAR DESIGN CODES AND METHODS
QUALIFICATION" (PROJ0776)

Dear Mr. Halfinger:

By letter dated August 31, 2010, (Agencywide Documents Access and Management System (ADAMS) Accession no. ML102450302) the Babcock & Wilcox (B&W) Nuclear Energy, Inc. submitted for U.S. Nuclear Regulatory Commission (NRC) staff review Topical Report R003-03-002106, "Core Nuclear Design Codes and Methods," Revision 0. Additionally, by letter dated August 30, 2012, (ML12248A154) Babcock & Wilcox mPower, Inc. submitted MPWR-TOPR-000001, "Supplement to Topical Report R003-03-002106 Validation of B&W mPower Core Design Methods," Revision 0.

The staff has performed an acceptance review of these documents and will begin a formal safety review on the following schedule. The staff expects to issue a request for additional information by Monday, December 2, 2013, and issue its draft safety evaluation by Friday, November 21, 2014. The staff estimates that the review will require approximately 2300 staff hours including project management time. The review schedule milestones and estimated review costs were discussed and agreed upon in a telephone conference between Mike Childerson, Sandra Sloan, et al., and the NRC staff on February 27, 2013.

In order for the NRC staff to meet the agreed upon schedule, the following supplemental information is required to be provided by April 8, 2013. The details and schedule for submitting the supplemental information were discussed with Steve Schilthelm and Dudley Raine of your staff on March 7, 2013.

- Provide the SPND data for the Three Mile Island (TMI-1) core follow cases contained in the reference Electric Power Research Institute (EPRI) reports and a description of the methodology and the associated information necessary to compare that data with the corresponding CASMO-5/SIMULATE-3 predictions at each time step. This information will be used to verify the statistical analysis used to produce the nuclear reliability factors (NRFs).
- Provide MCNPX input decks for the Beginning of Cycle (BOC) (critical Hot Full Power (HFP) and All Rods Out (ARO) HFP), 5 GWd/MTU (critical HFP before/after control rod exchange and ARO HFP), and 10 GWd/MTU (critical HFP and ARO HFP) cases.

J. Halfinger

-2-

Section 170.21 of Title 10 of the *Code of Federal Regulations* requires that topical reports are subject to fees based on the full cost of the review. You did not request a fee waiver; therefore, NRC staff hours will be billed accordingly.

If you have questions regarding this matter, please contact the Project Manager, Joelle L. Starefos at (301) 415-6091 or Joelle.Starefos@nrc.gov.

Sincerely,

/RA/

Stewart L. Magruder, Branch Chief
Small Modular Reactor Licensing Branch 1
Division of Advanced Reactors and
Rulemaking
Office of New Reactors

Project No.: 0776

cc: DC B&W mPower Mailing List

J. Halfinger

-2-

Section 170.21 of Title 10 of the *Code of Federal Regulations* requires that topical reports are subject to fees based on the full cost of the review. You did not request a fee waiver; therefore, NRC staff hours will be billed accordingly.

If you have questions regarding this matter, please contact the Project Manager, Joelle L. Starefos at (301) 415-6091 or Joelle.Starefos@nrc.gov.

Sincerely,

/RA/

Stewart L. Magruder, Branch Chief
Small Modular Reactor Licensing Branch 1
Division of Advanced Reactors and
Rulemaking
Office of New Reactors

Project No.: 0776

cc: DC B&W mPower Mailing List

DISTRIBUTION:

Public

JDonoghue, NRO

APatel, NRO

JSchmidt, NRO

ADAMS Accession No.: ML13066A679

NRO-002

OFFICE	PM:NRO/DARR/SMRLB1	BC:NRO/DARR/SMRLB1
NAME	JStarefos	SMagruder
DATE	03/8/2013	03/8/2013

OFFICIAL RECORD COPY

DC B&W mPower Mailing List
cc:

(Revised 03/04/2013)

Mr. Lionel Batty
Nuclear Business Team
Graftech
12300 Snow Road
Parma, OH 44130

Mr. Robert E. Sweeney
IBEX ESI
4641 Montgomery Avenue
Suite 350
Bethesda, MD 20814

Russell Bell
Nuclear Energy Institute
1776 I Street, NW
Suite 400
Washington, DC 20006-3708

Mr. Eugene S. Grecheck
Vice President
Nuclear Support Services
Dominion Energy, Inc.
5000 Dominion Blvd.
Glen Allen, VA 23060

Mr. Brendan Hoffman
Research Associate on Nuclear Energy
Public Citizens Critical Mass Energy and
Environmental Program
215 Pennsylvania Avenue, SE
Washington, DC 20003

Mr. Dobie McArthur
Director, Washington Operations
General Atomics
1899 Pennsylvania Avenue, NW
Suite 300
Washington, DC 20006

Mr. David Repka
Winston & Strawn LLP
1700 K. Street, NW
Washington, DC 20006-3817

Carlos Sisco
Senior Paralegal
Winston & Strawn LLP
1700 K Street NW
Washington, DC 20006

DC B&W mPower Mailing List

Email

Alan.Levin@areva.com (Alan Levin)
APH@NEI.org (Adrian Heymer)
asi@ornl.gov (Anita Benn)
awc@nei.org (Anne Cottingham)
badwan@lanl.gov (Faris Badwan)
bevans@enercon.com (Bob Evans)
cee@nei.org
charles.bagnal@ge.com (Charles Bagnal)
collinlj@westinghouse.com (Leslie Collins)
cposlusny@babcock.com (Chester Poslusny)
curtisslaw@gmail.com (Jim Curtiss)
d.weaver@holtec.com (Doug Weaver)
david.hinds@ge.com (David Hinds)
david.lewis@pillsburylaw.com (David Lewis)
dlfulton@southernco.com (Dale Fulton)
don.tormey@iub.iowa.gov
dsafer@comcast.net (Don Safer)
duane.fournier@iub.iowa.gov
ed.burns@earthlink.net (Ed Burns)
elyman@ucsusa.org (Ed Lyman)
erg-xl@cox.net (Eddie R. Grant)
ewallace@nuscalepower.com (Ed Wallace)
exa@nei.org (Ellen Anderson)
F.Shahrokhi@AREVA.Com (Farshid Shahrokhi)
flowerspa@ornl.gov (Paula Flowers)
frank.bodine@oca.iowa.gov (Frank Bodine)
gcesare@enercon.com (Guy Cesare)
gmokulczyk@energysolutions.com (Gair Okulczyk)
gmorg50@hotmail.com (Garry Morgan)
jahalfinger@babcock.com (Jeff Halfinger)
james1.beard@ge.com (James Beard)
jason.parker@pillsburylaw.com (Jason Parker)
jason.tokey@nuclear.energy.gov (Jason Tokey)
jcsaldar@bechtel.com (James Saldarini)
jerald.head@ge.com (Jerald G. Head)
Jim.Kinsey@inl.gov (James Kinsey)
jim.sundermeyer@iub.iowa.gov
JNR@NuScalePower.com (Jose N. Reyes)
kerri.johannsen@iub.iowa.gov
klingscl@westinghouse.com (Charles Kling)
kouhestani@msn.com (Amir Kouhestani)
krrowe@tva.gov (Kevin R. Rowe)
KSutton@morganlewis.com (Kathryn M. Sutton)
Kwelter@NuScalePower.com (Kent Welter)

DC B&W mPower Mailing List

larry.shi@oca.iowa.gov (Larry Shi)
larry.stevens@iub.iowa.gov
laura.andrews@CNSC-CCSN.GC.CA (Laura Andrews)
lchandler@morganlewis.com (Lawrence J. Chandler)
lgorenflo@gmail.com (L. Gorenflo)
libby.jacobs@iub.iowa.gov
luther.jones@dzatlantic.com (Luther B. Jones)
mack.thompson@iub.iowa.gov
maria.webb@pillsburylaw.com (Maria Webb)
mark.a.giles@dom.com (Mark Giles)
mark.beaumont@wsms.com (Mark Beaumont)
mark.holbrook@inl.gov (Mark Holbrook)
mark@npva.net
matias.travieso-diaz@pillsburylaw.com (Matias Travieso-Diaz)
murawski@newsobserver.com (John Murawski)
parveen.baig@iub.iowa.gov
patriciaL.campbell@ge.com (Patricia L. Campbell)
Paul@beyondnuclear.org (Paul Gunter)
PLorenzini@NuScalePower.com (Paul Lorenzini)
poorewpiil@ornl.gov (Willis P. Poore III)
pshastings@generationmpower.com (Peter Hastings)
rbarrett@astminc.com (Richard Barrett)
rnicholas@ge.com (Robert Nicholas)
ronald.polle@oca.iowa.gov
RSnuggerud@NuScalePower.com (Ross Snuggerud)
Sandra@sandrakgoss.com (Sandra Goss)
sara@cleanenergy.org
sfrantz@morganlewis.com (Stephen P. Frantz)
shobbs@enercon.com (Sam Hobbs)
smsloan@babcock.com (Sandra Sloan)
spellmandj@ornl.gov (Donald J. Spellman)
stan.wolf@iub.iowa.gov
stephan.moen@ge.com (Stephan Moen)
steven.m.mirsky@saic.com (Steve Mirsky)
t.sensue@holtec.com (Terry Sensue)
Tansel.Selekler@nuclear.energy.gov (Tansel Selekler)
tfeigenbaum@generationmpower.com (Ted Feigenbaum)
tgado@roe.com (Burns & Roe)
timothy.beville@nuclear.energy.gov (Timothy Beville)
tom.miller@hq.doe.gov (Tom Miller)
tom.miller@nuclear.energy.gov (Thomas P. Miller)
TomClements329@cs.com (Tom Clements)
tommy_le2001@yahoo.com (Tommy Le)
trsmith@winston.com (Tyson Smith)
Vanessa.quinn@dhs.gov (Vanessa Quinn)

DC B&W mPower Mailing List

W.E.SMIT@southernco.com (William Smith)
whorin@winston.com (W. Horin)