

May 13, 2010

Mr. Yoshiki Ogata, General Manager
APWR Promoting Department
Mitsubishi Heavy Industries, Ltd.
16-5, Konan 2-Chome, Minato-Ku
Tokyo, 108-8215 JAPAN

SUBJECT: UNITED STATES - ADVANCED PRESSURIZED WATER REACTOR DESIGN
CERTIFICATION APPLICATION - SAFETY EVALUATION REPORT WITH
OPEN ITEMS FOR CHAPTER 16, "TECHNICAL SPECIFICATIONS"

Dear Mr. Ogata:

By letter dated December 31, 2007, as supplemented by letter dated March 27, 2008, and April 16, 2008, Mitsubishi Heavy Industries, Ltd. (MHI) submitted an application to the U.S. Nuclear Regulatory Commission (NRC) for a standard design certification of the United States - Advanced Pressurized Water Reactor (US-APWR), pursuant to Title 10 of the *Code of Federal Regulations* (10 CFR) Part 52, "Licenses, Certifications, and Approvals for Nuclear Power Plants." Subsequent to the original application, MHI has submitted Revisions 1 and 2 of the US-APWR Final Safety Analysis Report (FSAR) by letters dated August 29, 2008, and October 27, 2009, in the Agencywide Documents Access and Management System (ADAMS) under Accession Numbers ML082480524 and ML093070198. The revisions to the FSAR include changes associated with responses to the NRC Requests for Additional Information (RAIs) submitted through August 2009.

Based on our review of the application, the NRC staff prepared the enclosed Safety Evaluation Report (SER), with Open Items for Chapter 16, "Technical Specifications," ADAMS Accession Number ML100830471. Unless otherwise stated in the SER with Open Items, the NRC staff's review was based on Revision 2 of the application and MHI's responses to RAIs. The SER with Open Items is being provided to support the upcoming meeting of the subcommittee of the Advisory Committee on Reactor Safeguards (ACRS) scheduled to be held in June 2010. The ACRS Full Committee meeting will be held at a later date. Issuance of this SER is an important milestone in the NRC staff's review to determine whether MHI's application meets the Commission's regulations.

The open items identified in the SER have been previously provided to you as RAIs with the same identifying number. These open items are expected to be resolved during the Phase 4 review of your application. As such, the schedule we have established for your application assumes technically correct and complete responses to the RAIs prior to the start of Phase 4 review of Chapter 16 of the FSAR. If you are unable to provide an answer prior to the start of the Phase 4 review, it is expected that a date for receipt of this information will be provided so that the NRC staff can assess how this information will impact the overall review schedule.

Y. Ogata

- 2 -

The NRC staff concludes that the enclosed SER with Open Items does not contain any information for which exemption from public disclosure has been sought or approved. However, the NRC will withhold the enclosed SER from public disclosure for ten calendar days from the date of this letter to allow you the opportunity to verify the NRC staff's conclusion that the SER contains no such exempt information. If within that time, you do not request that all or portions of the SER be withheld from public disclosure in accordance with 10 CFR 2.390, "Public Inspections, Exemptions, Requests for Withholding," the enclosure will be made available for public inspection through the NRC's Public Document Room and the Publicly Available Records component of the NRC's ADAMS. ADAMS is accessible from the Public Electronic Reading Room section of the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html>.

If you have any questions regarding this matter, I can be reached at (301) 415-6391 or via e-mail at Jeff.Ciocco@nrc.gov.

Sincerely,

/RA William Ward for/

Jeffrey Ciocco, Sr. Project Manager
US-APWR Projects Branch
Division of New Reactor Licensing
Office of New Reactors

Docket No. 52-021

Enclosure:
Chapter 16 Safety Evaluation Report

cc: See next page

Y. Ogata

- 2 -

The NRC staff concludes that the enclosed SER with Open Items does not contain any information for which exemption from public disclosure has been sought or approved. However, the NRC will withhold the enclosed SER from public disclosure for ten calendar days from the date of this letter to allow you the opportunity to verify the NRC staff's conclusion that the SER contains no such exempt information. If within that time, you do not request that all or portions of the SER be withheld from public disclosure in accordance with 10 CFR 2.390, "Public Inspections, Exemptions, Requests for Withholding," the enclosure will be made available for public inspection through the NRC's Public Document Room and the Publicly Available Records component of the NRC's ADAMS. ADAMS is accessible from the Public Electronic Reading Room section of the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html>.

If you have any questions regarding this matter, I can be reached at (301) 415-6391 or via e-mail at Jeff.Ciocco@nrc.gov.

Sincerely,

/RA William Ward for/

Jeffrey Ciocco, Sr. Project Manager
US-APWR Projects Branch
Division of New Reactor Licensing
Office of New Reactors

Docket No. 52-021

Enclosure:
Chapter 16 Safety Evaluation Report

cc: See next page

DISTRIBUTION:

| | | |
|--------------|-----------------|------------------------|
| PUBLIC | JCiocco, NRO | RidsAcrsAcnwMailCenter |
| NMIP R/F | RidsNroDnrlNmip | RidsOgcMailCenter |
| D081 | RidsNroDnrlDcip | |
| MTakacs, NRO | RidsNroLACSmith | |

ADAMS Accession No.: ML100840592; Pkg: ML100890549; *via e-mail

NRO-002

| OFFICE | DNRL/NMIP: PM | DNRL/NMIP: LA | DNRL/NMIP: PM | DNRL/DCIP: BC | DNRL/NMIP: BC |
|--------|--------------------------|---------------|---------------|---------------|--------------------------|
| NAME | (MMagee for) MTakacs | CSmith* | JCiocco* | MKowal* | (WWard for) HHamzehee |
| DATE | 05/13/2010 | 05/11/2010 | 05/12/2010 | 05/13/2010 | 05/13/2010 |

OFFICIAL RECORD COPY

DC Mitsubishi - US APWR Mailing List
cc:

(Revised 05/12/2010)

Ms. Michele Boyd
Legislative Director
Energy Program
Public Citizens Critical Mass Energy
and Environmental Program
215 Pennsylvania Avenue, SE
Washington, DC 20003

Mr. Gary Wright, Director
Division of Nuclear Facility Safety
Illinois Emergency Management Agency
1035 Outer Park Drive
Springfield, IL 62704

Atsushi Kumaki
Mitsubishi Heavy Industries, Ltd.
APWR Promoting Department
Wadasaki-cho- 1-1-1, Hyogo-ku
Kobe 652-8585 JAPAN

Dr. Masanori Onozuka
Mitsubishi Nuclear Energy Systems, Inc.
1001 19th Street North, Suite 710
Arlington, VA 22201-5426

Dr. C. Keith Paulson
Mitsubishi Nuclear Energy Systems, Inc.
300 Oxford Drive, Suite 301
Monroeville, PA 15146

Mr. Tom Sliva
7207 IBM Drive
Charlotte, NC 28262

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

Mr. Ed Wallace
General Manager - Projects
PBMR Pty LTD
P. O. Box 9396
Centurion 0046
Republic of South Africa

DC Mitsubishi - US APWR Mailing List

Email

APH@NEI.org (Adrian Heymer)
atsushi_kumaki@mhi.co.jp (Atsushi Kumaki)
awc@nei.org (Anne W. Cottingham)
bgattoni@roe.com (William (Bill) Gattoni))
BrinkmCB@westinghouse.com (Charles Brinkman)
chris.maslak@ge.com (Chris Maslak)
ck_paulson@mnes-us.com (C Keith Paulson)
ckpaulson@aol.com (C.K. Paulson)
CumminWE@Westinghouse.com (Edward W. Cummins)
cwaltman@roe.com (C. Waltman)
david.hinds@ge.com (David Hinds)
david.lewis@pillsburylaw.com (David Lewis)
DeLaBarreR@state.gov (R. DeLaBarre)
Derlinda.Bailey@chguernsey.com (Derinda Bailey)
donald.woodlan@luminant.com (Donald Woodlan)
eliza.seedcoalition@gmail.com (Elza Brown)
erg-xl@cox.net (Eddie R. Grant)
gcesare@enercon.com (Guy Cesare)
james.beard@gene.ge.com (James Beard)
jerald.head@ge.com (Jerald G. Head)
jgutierrez@morganlewis.com (Jay M. Gutierrez)
jim.riccio@wdc.greenpeace.org (James Riccio)
jin_chung@mnes-us.com
John.O'Neill@pillsburylaw.com (John O'Neill)
Joseph_Hegner@dom.com (Joseph Hegner)
jrund@morganlewis.com (Jonathan Rund)
KSutton@morganlewis.com (Kathryn M. Sutton)
kwaugh@impact-net.org (Kenneth O. Waugh)
lchandler@morganlewis.com (Lawrence J. Chandler)
lon.burnam@house.state.tx.us (Lon Burnam)
Marc.Brooks@dhs.gov (Marc Brooks)
maria.webb@pillsburylaw.com (Maria Webb)
mark.beaumont@wsms.com (Mark Beaumont)
Mark.Crisp@chguernsey.com (Mark Crisp)
masahiko_kaneda@mhi.co.jp (Masahiko Kaneda)
masanori_onozuka@mnes-us.com (Masanori Onozuka)
masayuki_kambara@mhi.co.jp (Masayuki Kambara)
matias.travieso-diaz@pillsburylaw.com (Matias Travieso-Diaz)
mayorsouthern@granbury.org (Mayor David Southern)
media@nei.org (Scott Peterson)
mike_moran@fpl.com (Mike Moran)
MSF@nei.org (Marvin Fertel)
mutsumi_ishida@mnes-us.com (Mutsumi Ishida)
mwetterhahn@winston.com (M. Wetterhahn)

DC Mitsubishi - US APWR Mailing List

nan_sirirat@mnes-us.com (Sirirat Mongkolkam)
nirsnet@nirs.org (Michael Mariotte)
Nuclaw@mindspring.com (Robert Temple)
patriciaL.campbell@ge.com (Patricia L. Campbell)
paul.gaukler@pillsburylaw.com (Paul Gaukler)
Paul@beyondnuclear.org (Paul Gunter)
plarimore@talisman-intl.com (Patty Larimore)
pshastings@duke-energy.com (Peter Hastings)
RJB@NEI.org (Russell Bell)
Russell.Wells@Areva.com (Russell Wells)
sabinski@suddenlink.net (Steve A. Bennett)
sandra.sloan@areva.com (Sandra Sloan)
satoshi_hanada@mnes-us.com (Satoshi Hanada)
satoshi_watanabe@mnes-us.com (Satoshi Watanabe)
sfrantz@morganlewis.com (Stephen P. Frantz)
shinji_kawanago@mnes-us.com (Shinji Kawanago)
stephan.moen@ge.com (Stephan Moen)
steven.hucik@ge.com (Steven Hucik)
strambgb@westinghouse.com (George Stramback)
Tansel.Selekler@nuclear.energy.gov (Tansel Selekler)
tgilder1@luminant.com (Tim Gilder)
tmatthews@morganlewis.com (T. Matthews)
tom.miller@hq.doe.gov (Tom Miller)
trsmith@winston.com (Tyson Smith)
Vanessa.quinn@dhs.gov (Vanessa Quinn)
vijukrp@westinghouse.com (Ronald P. Vijuk)
Wanda.K.Marshall@dom.com (Wanda K. Marshall)
whorin@winston.com (W. Horin)
yoshiki_ogata@mhi.co.jp (Yoshiki Ogata)