

May 14, 2007

MEMORANDUM TO: Robert Hardies, Chief
Component Integrity Branch
Division of Fuel, Engineering, and Radiological Research
Office of Nuclear Regulatory Research

FROM: Mauricio Gutierrez, General Engineer */RA/*
Component Integrity Branch
Division of Fuel, Engineering, and Radiological Research
Office of Nuclear Regulatory Research

SUBJECT: SUMMARY OF THE MAY 1, 2007, CATEGORY 2 PUBLIC MEETING
BETWEEN THE NUCLEAR REGULATORY COMMISSION STAFF AND
THE EXPERT PANEL FOR THE WOLF CREEK ADVANCED FINITE
ELEMENT ANALYSES (FEA)

On May 1, 2007, the U.S. Nuclear Regulatory Commission (NRC) staff conducted a Category 2 public meeting with industry representatives at Dominion Engineering, Incorporated in Reston, VA. A list of attendees, the industry presentation, and the NRC presentation are enclosed. The meeting was one of a series of meetings being held between industry representatives and NRC staff to discuss the industry's advanced finite element fracture mechanics analysis program undertaken to address NRC staff's question concerning the likelihood that rupture may occur in some cases without prior evidence of leakage in pressurizer nozzle welds susceptible to primary water stress corrosion cracking.

The meeting specifically addressed weld residual stress inputs and validation. Industry representatives presented information regarding nozzle-to-safe end geometries and dimensions, loads, and past weld residual stress model results for the proposed Phase II advanced FEA calculations (see Enclosure 2). NRC staff and its contractor, the Engineering Mechanics Corporation of Columbus, followed by presenting weld residual stress profiles developed under past NRC programs (Enclosure 3). It was noted that results from both parties provided similar results although the analytical approaches may differ. The participants also began discussing the development of a list of weld residual stress (WRS) distribution cases that the industry will need to calculate in the context of the overall analysis matrix. The list of analysis cases primarily will be composed of reported weld repairs. Since records of fabrication and repair histories do not necessarily represent all welding and rework performed, the cases discussed may need to be amplified by either additional cases or sensitivity studies on some of the parameters or both.

CONTACT: Mauricio R. Gutierrez, RES/DFERR
301-415-1122

R. Hardies

-2-

The meeting concluded with discussions on the differences between validation and benchmarking of weld residual stress model results. No members of the public were present at the meeting. The information discussed was non-proprietary. Please direct any inquiries to me at 301-415-1122 or mrg3@nrc.gov.

Enclosures:

1. List of Attendees
2. Dominion Engineering Presentation
3. Engineering Mechanics Corporation of Columbus Presentation

R. Hardies

-2-

The meeting concluded with discussions on the differences between validation and benchmarking of weld residual stress model results. No members of the public were present at the meeting. The information discussed was non-proprietary. Please direct any inquiries to me at 301-415-1122 or mrg3@nrc.gov.

Enclosures:

1. List of Attendees
2. Dominion Engineering Presentation
3. Engineering Mechanics Corporation of Columbus Presentation

DISTRIBUTION:

ME R/F DFERR R/F

OAR in ADAMS? (Y or N) Y ADAMS ACCESSION NO: PKG ML071360367 TEMPLATE NO. NRC-001

Publicly Available? (Y or N) Y DATE OF RELEASE TO PUBLIC: 05/15/07 SENSITIVE? N

To receive a copy of this document, indicate in the box: "C" = Copy without attachment/enclosure "E" = Copy with attachment/enclosure "N" = No copy

OFFICE	RES/DFERR/CIB	RES/DFERR/CIB	RES/DFERR/CIB	SUNSI REVIEW Originator
NAME	M. Gutierrez	A. Csontos / <i>RA/ Shah Malik for</i>	R. Hardies	M. Gutierrez
DATE	05/14/07	05/14/07	05/14/07	05/14/07

OFFICE	SUNSI REVIEW Branch Chief
NAME	R. Hardies
DATE	05/14/07

OFFICIAL RECORD COPY

DISTRIBUTION FOR SUMMARY OF CATEGORY 2 PUBLIC MEETING WITH THE EXPERT
PANEL FOR THE WOLF CREEK ADVANCED FEA ANALYSES

Date: 05/15/07

PUBLIC
PSPB Reading File
RidsNrrAdro
RidsNrrDpr
RidsNrrDprPspb
RidsNrrPMTMensah
RidsNrrLADBaxley
RidsOpaMail
MMurphy
RidsNrrDciCpnb
ESullivan
JGrobe
MEvans
WBateman
TChan
TLupold
RHardies
MKhanna
ACsantos
Ssheng
MGutierrez
PMNS
RJasinski
RidsOgcMailCenter
RidsAcrsAcnwMailCenter
Receptionist (OWFN and TWFN)
RidsNrrDe

Nuclear Regulatory Commission Meeting
with the
Expert Panel for Wolf Creek Finite Element Analysis
May 1, 2007

U.S. NUCLEAR REGULATORY COMMISSION

Edmund Sullivan
Aladar Csontos
Simon Sheng
Tim Lupold
Dave Rudland (NRC Contractor)
Mauricio Gutierrez

INDUSTRY

Ken Yoon, AREVA NP
Craig Harrington, EPRI
Glenn White, DEI
Jean Collin, DEI
John Broussard, DEI
Tim Gilman, Structural Integrity
Doug Killian, AREVA

(on telephone)

Pete Riccardella, SIA
Warren Bamford, Westinghouse
Brandon Jenewein, South Texas Project Nuclear Operating Company (STPNOC)
Craig Younger, STPNOC
Suryakant Patel, STPNOC
Richard Hall, Exelon
Rudy Giil, RPL
Wayne Harrison, STPNOC

cc:

Mr. Anthony Pietrangelo, Vice President
Regulatory Affairs
Nuclear Energy Institute
1776 I Street, NW, Suite 400
Washington, DC 20006-3708
arp@nei.org

Mr. Jack Roe, Director
Operations Support
Nuclear Energy Institute
1776 I Street, NW, Suite 400
Washington, DC 20006-3708
jwr@nei.org

Mr. Charles B. Brinkman
Washington Operations
ABB-Combustion Engineering, Inc.
12300 Twinbrook Parkway, Suite 330
Rockville, MD 20852
brinkmcb@westinghouse.com

Mr. Gary L. Vine, Executive Director
Federal and Industry Activities, Nuclear
Sector
EPRI
2000 L Street, NW, Suite 805
Washington, DC 20036
gvine@epri.com

Mr. James Gresham, Manager
Regulatory Compliance and Plant Licensing
Westinghouse Electric Company
P.O. Box 355
Pittsburgh, PA 15230-0355
greshaja@westinghouse.com

Ms. Barbara Lewis
Assistant Editor
Platts, Principal Editorial Office
1200 G St., N.W., Suite 1100
Washington, DC 20005
Barbara_lewis@platts.com

Mr. Gary Welsh
Institute of Nuclear Power Operations
Suite 100
700 Galleria Parkway, SE
Atlanta, GA 30339-5957
welshgc@inpo.org

Mr. Alexander Marion, Executive Director
Nuclear Operations & Engineering
Nuclear Energy Institute
1776 I Street, NW, Suite 400
Washington, DC 20006-3708
am@nei.org

Mr. Jay Thayer, Vice President
Nuclear Operations
Nuclear Energy Institute
1776 I Street, NW, Suite 400
Washington, DC 20006-3708
jkt@nei.org

Mr. John Butler, Director
Safety-Focused Regulation
Nuclear Energy Institute
1776 I Street, NW, Suite 400
Washington, DC 20006-3708
jcb@nei.org

Mr. James H. Riley, Director
Engineering
Nuclear Energy Institute
1776 I Street, NW
Washington, DC 20006-3708
jhr@nei.org

Mr. David J. Modeen
Vice President and Chief Nuclear Officer
EPRI
1300 W. T. Harris Boulevard
Charlotte, NC 28262-8550
dmodeen@epri.com

Mr. John Gaertner
EPRI
1300 W.T. Harris Boulevard
Charlotte, NC 28262-8550
jgaertner@epri.com

Ms. Rosa Yang
EPRI
3412 Hillview Avenue
Palo Alto, CA 94304-1338
ryang@epri.com

Mr. Kenneth Huffman
EPRI
1300 W. T. Harris Boulevard
Charlotte, NC 28262-8550
khuffman@epri.com