

March 30, 2011

MEMORANDUM TO: John R. Jolicoeur, Chief  
Licensing Processes Branch  
Division of Policy and Rulemaking  
Office of Nuclear Reactor Regulation

FROM: Jonathan G. Rowley, Project Manager **/RA/**  
Licensing Processes Branch  
Division of Policy and Rulemaking  
Office of Nuclear Reactor Regulation

SUBJECT: SUMMARY OF MARCH 3, 2011, PUBLIC MEETING WITH THE  
PRESSURIZED WATER REACTOR OWNERS GROUP REGARDING  
ISSUES RELATED TO GENERIC SAFETY ISSUE 191

On March 3, 2011, a Category 2 public meeting was held between the U.S. Nuclear Regulatory Commission (NRC) and representatives of the Pressurized Water Reactor Owners Group (PWROG) at NRC Headquarters, One White Flint North, 11555 Rockville Pike, Rockville, Maryland.

The purpose of the meeting was for the NRC staff and the PWROG to have a technical exchange on issues regarding Generic Safety Issue (GSI) 191. Specifically, the NRC staff and the PWROG representatives discussed testing and analysis to reduce debris generation zones of influence (ZOIs), the PWROG testing and analysis program to define debris generation ZOIs, the path forward for in-vessel effects, and alternate flow paths.

A list of attendees is provided as Enclosure 1. The PWROG slide presentations can be found in the Agencywide Documents Access and Management System at Accession number ML110690429.

Members of the public were in attendance in person and via telephone conference link. Mr. Gilbert Zigler, Alion Science and Technology, asked and submitted three questions. The three questions and corresponding responses are provided as Enclosure 2.

CONTACT: Jonathan Rowley, NRR/DPR  
301-415-4053

Action Items

1. The NRC staff asked the PWROG if it were taking advantage of hot rod testing supporting the boric acid precipitation program to validate the Loss of Coolant Accident Deposition Model, especially for retrograde solubility materials such as calcium. The PWROG responded that they will look into this question and get back to the staff.
2. The PWROG will provide the results from additional tests that evaluated the effects of air entrainment and mixing tank return line position to the NRC.

Project No. 694

Enclosures:

1. List of Attendees
2. Questions and Responses

cc w/encl: See next page

Action Items

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cc w/encl: See next page

DISTRIBUTION: See attached page

ADAMS Accession No: Package – ML110760135, Notice – ML110420508, Summary – ML110730386, Presentations – ML110690429

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NAME	JRowley	DBaxley	JJolicoeur	JRowley
DATE	3/29/11	3/29/11	3/30/11	3/30/11

OFFICIAL RECORD COPY

Memo to J. Jolicoeur from J. Rowley dated March 30, 2011

SUMMARY OF MARCH 3, 2011, PUBLIC MEETING WITH THE PRESSURIZED WATER REACTOR OWNERS GROUP REGARDING ISSUES RELATED TO GENERIC SAFETY ISSUE 191

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**List of Attendees**

**GSI-191 Meeting: Discussion on the Closure Plans for the Zone of Influence and**

**In-vessel Effects Programs**

March 3, 2011

<b>Name</b>	<b>Organization</b>
Jonathan Rowley	NRC
Steward Bailey	NRC
Robert Taylor	NRC
Steve Bajorek	NRC
Steve Smith	NRC
Ralph Architzel	NRC
Paul Klein	NRC
Ervin Geiger	NRC
Leonard Ward	NRC
Clint Ashley	NRC
Shanlai Lu	NRC
Blake Purnell	NRC
Anthony Mendiola	NRC
Jason Dykert	NRC
Eric Miller	NRC
John Burke	NRC
Andy Hon	NRC
Ralph Landry	NRC
Joe Donoghue	NRC
John Lubinski	NRC
Robert Dennig	NRC
James Trapp	NRC
Matt Yoder	NRC
Bruce Lin	NRC
Z. Gary Wang	NRC
Maurice Dingler	PWROG/Wolf Creek Nuclear Operating Company
Tim Andreychek	PWROG/Westinghouse Electric Company
Mehrdad Hojati	PWROG/San Onofre Nuclear Generating Station
Jack Stringfellow	PWROG/Southern Nuclear Company
Gordon Wissinger	PWROG/AREVA NP Inc.
Victor Hatman	PWROG/AREVA NP Inc.
Basar Ozar	Fauske Associates
Christopher Henry	Fauske Associates
Robert Henry	Fauske Associates
Brad Tyers	PWROG/Exelon
Tim Croyle	PWROG/Westinghouse Electric Company

<b>Name</b>	<b>Organization</b>
John Butler	Nuclear Energy Institute
Dave Midlik	PWROG/Southern Nuclear Company
Phillip Grissom	PWROG/Southern Nuclear Company
Kevin McNamnee	PWROG/Westinghouse Electric Company
John Maruschak	PWROG/Westinghouse Electric Company
Shinji Otami	Mitsubishi Nuclear Energy Systems, Inc.
Kurt Walter	Mitsubishi Nuclear Energy Systems, Inc.
William Cross*	NextEra Energy (Florida Power and Light)
Joseph Gasper*	Omaha Public Power District (Ft. Calhoun Station)
Gilbert Zigler*	Alion Science and Technology
Dan Brosnan*	Pacific Gas and Electric (Diablo Canyon Power Plant)
Peter Wilkens*	Southern California Edison (SCE)
Karen Ngai*	SCE
Carl Stafford*	Arizona Public Service (Palo Verde Nuclear Generating Station)
Glen A. Thomas*	AREVA NP Inc.
Jeff Weyhmiller*	Entergy Nuclear Operations, Inc. (Palisades Nuclear Plant)
Bill Beckius*	Entergy Nuclear Operations, Inc. (Palisades Nuclear Plant)
Keith Smith*	Entergy Nuclear Operations, Inc. (Palisades Nuclear Plant)

\*via telephone

**Submitted questions asked during the March 3, 2011, meeting with corresponding responses:**

Q1. What are the rupture (burst) disks opening times?

A1. Burst disk time to rupture to full open is evaluated to be less than 10 milliseconds (ms).

Q2. What are the pressure sensor response times?

A2. Response times for the rake pressure transducers will be about 1ms.

Q3. What is the sampling rate of the data acquisition system?

A3. The functional requirements for the test program specify a sampling rate of 1,000 samples per second.