

June 24, 2008

MEMORANDUM TO: Michael L. Scott, Chief
Safety Issues Resolution Branch
Division of Safety Systems
Office of Nuclear Reactor Regulation

FROM: Joseph A. Golla, Project Manager */RA/*
Generic Communications and Power Uprate Branch
Division of Policy and Rulemaking
Office of Nuclear Reactor Regulation

SUBJECT: SUMMARY OF JUNE 5, 2008, PUBLIC MEETING WITH THE BOILING
WATER REACTOR OWNER'S GROUP (BWROG) TO DISCUSS
BWROG PROPOSED ACTIVITIES REGARDING STRAINER
CLOGGING ISSUES

On June 5, 2008, Nuclear Regulatory Commission (NRC) staff met with representatives of the BWROG in a public meeting at NRC headquarters in Rockville, Maryland. Enclosure 1 provides a list of those in attendance. Enclosure 2 is the meeting agenda. Information presented by the NRC and industry at the meeting is available in the NRC Agencywide Documents Access and Management System (ADAMS) under Accession No. ML081620234.

The purpose of this meeting was to discuss the BWROG's proposed activities to address boiling water reactor (BWR) emergency core cooling system (ECCS) strainer performance considering insights from resolution of Generic Safety Issue (GSI) 191 on pressurized water reactor (PWR) containment sump clogging technical issues. The meeting was a followup to a meeting held with the BWROG November 27, 2008. The meeting summary of the November 27, 2008, meeting can be viewed at ADAMS Accession No. ML080240235.

The meeting was convened by the NRC GSI-191 Project Manager. The NRC Associate Director for Engineering and Safety Systems in the Office of Nuclear Reactor Regulation followed with additional opening remarks. Then the Executive Chairman of the BWROG made opening remarks as did the Chairman of the BWROG. The BWROG Chair then presented a portion of the BWROG's briefing. The remainder of the briefing was presented by the BWR ECCS Suction Strainers Committee Chairman.

The BWROG identified 12 key issues to be evaluated. These are based on 7 issues identified by the NRC in an April 10, 2008, letter to the BWROG Executive Chairman (ADAMS Accession No. ML080500540). The 12 key issues that the BWROG intend to focus on are binned into 3 areas. Under the area of debris source term there are 7 issues: break selection, debris generation, latent debris, debris transport, coatings, debris source term, and debris characteristics. In the area of strainer head loss correlation there are 3 issues, head loss [due to] vortexing, net positive suction head (NPSH), and upstream effects. In the area of downstream debris effects there are 2 issues to be evaluated, chemical effects and downstream effects. The approach the BWROG plans to take is to assess previous actions taken for BWRs

for adequacy based on information gained about strainer clogging which was developed through the current NRC and industry efforts to address GSI-191, "Assessment of Debris Accumulation on PWR Sump Performance."

The BWROG Chair indicated that in evaluating the fleet of BWRs, the BWROG will initially group them by containment type, i.e., Mark I, II, and III and then, if needed, conduct plant-specific evaluations. The BWROG Chair stated that they will be working toward a goal of identifying and addressing all strainer clogging issues such that the issues are addressed and closed in a time frame of 3 to 4 years. The BWROG Chair stated that many members of the BWROG are also operators of PWR units and, therefore, the intent of the BWROG is to address and close all issues "as an industry." The BWROG presentation can be viewed at ADAMS Accession No. ML081620244.

After this a NRC staff member made a briefing on chemical effects in BWRs. This briefing presented aspects of Japanese and German testing. While the applicability of these tests to United States reactors has not been fully determined, the NRC staff believes they provide useful insights regarding issues such as the potential for chemical effects in a BWR after a loss-of-coolant accident. The presentation slides for this briefing can be viewed at ADAMS Accession No. ML081620238.

The BWR Chair stated that their efforts in this area are dependant on availability and approval of adequate funding; they expect the funding situation to be clear in the near future. The NRC and BWROG participants agreed to arrange and have a working level meeting in the late summer/early fall 2008 time frame to further discuss the resolution of the issues.

A member of the public asked if the NRC has funding and full time equivalent personnel to engage this effort. The NRC Associate Director for Engineering and Safety Systems replied that although there are no line items in the current budget for this activity, the NRC has adequate resources. The individual also inquired as to the number of pressurized water reactor sites/units that have asked the NRC for an extension beyond the spring 2008 time frame for implementing corrective actions needed to address GSI-191. This question was answered by the NRC Branch Chief of the Safety Issues Resolution Branch. The meeting was then adjourned.

Enclosure 1: List of Attendees
Enclosure 2: Meeting Agenda

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Enclosure 2: Meeting Agenda

ADAMS ACCESSION NUMBER: Memo: ML081620552

OFFICE	LA:DPR:PGCB	PM:DPR:PGCB	BC:DPR:PGCB	BC:DCI:CSGB	BC:DSS:SSIB
NAME	CHawes	JGolla	MMurphy	AHiser EM for	MScott
DATE	6/12/2008	6/13/2008	6/14/2008	6/17/2008	6/24/2008

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List of Attendees for June 5, 2008,
Meeting of BWROG and NRC

June 5, 2008	
Name	Organization
Andy Kaufman	Continuum Dynamics, Inc.
Randy Bunt	BWROG/SNC
Tom Morales	BWROG/Energy NW
Fariba Gartland	Areva
John Butler	NEI
Sara Hassan	Westinghouse
Tim Andreychek	Westinghouse
Ken McCall	GEH
Steve Huebsch	FPL – Duane Arnold
Larry Fleischer	GEH
Steven Dolley	Platts/Inside NRC
Gil Zigler	Alion
Jay Basken	Enercon
Harry Goodman	Entergy
Ardesar Irani	Entergy
Elizabeth Newberg	NMC
Aaron Smith	Enercon
Jack Smith	PLS
Rob Chromakos	Alion
M. Chinworth	JNES
Wes McGoun	Progress Energy
Doug Coleman	BWROG
Rich Anderson	FPL-DAEC/BWROG

List of Attendees for June 5, 2008,
Meeting of BWROG and NRC

June 5, 2008	
Name	Organization
Pete Mast	Alion
Tony Borger	PPL Susquehanna
Brian Davenport	Exelon
Kenjiro Aono	JNES
Jack Grobe	NRC
Ruth Reyes	NRC
John Kauffman	NRC
Rich Lobel	NRC
Leon Whitney	NRC
Jerry Wermiel	NRC
Ralph Architzel	NRC
Joe Golla	NRC
Emma Wong	NRC
Matt Yoder	NRC
Steve Smith	NRC
Gary Hammer	NRC
Donnie Harrison	NRC
Ralph Landry	NRC
Mike Scott	NRC
Bill Ruland	NRC
Thomas Koshy	NRC
John Lehning	NRC
Mike Snodderly	NRC

List of Attendees for June 5, 2008,
Meeting of BWROG and NRC

June 5, 2008	
Name	Organization
Greg Makar	NRC
John Burke	NRC
Allen Hiser	NRC
Assaf Dvir	NRC
Paul Klein	NRC
Henry Wagage	NRC
Michelle Evans	NRC
Chris Jackson	NRC

MEETING AGENDA
U.S. NUCLEAR REGULATORY COMMISSION (NRC)
MEETING WITH BOILING WATER REACTOR OWNER'S GROUP (BWROG)

JUNE 5, 2008

8:30-8:40	Introductions and meeting purpose	NRC
8:40-9:40	Presentation of proposed industry actions	BWROG
9:40-11:20	Open discussion on next steps	NRC/BWROG
11:20-11:30	Opportunity for public comment	NRC
11:30	Adjourn	

Enclosure 2

Memorandum to Michael L. Scott from Joseph A. Golla

SUBJECT: MEETING SUMMARY OF PUBLIC MEETING WITH BWROG ON
JUNE 5, 2008, TO DISCUSS STRAINER CLOGGING ISSUES

DISTRIBUTION:

PUBLIC

Michael Scott

Ralph Landry

Joe Golla

Ralph Architzel

Martin Murphy

Jared Wermiel

Paul Klein

William Ruland

John Lehning

Leon Whitney

George Thomas (GXT)

Roberto Torres

John Grobe

Richard Lobel

Thomas Koshy

Harry Wagage

Michael Snodderly

Christopher Jackson

Matthew Yoder

Allen Hiser

Michele Evans

Stephen Smith

John Burke

Greg Holmes (gregoryk.holmes@ge.com)

Randy Bunt (rcbunt@southernco.com)

Ken McCall (kenneth.mccall@energy-northwest.com)

Tom Morales (tpmorales@energy-northwest.com)

John Butler (jcb@nei.org)

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