August 13, 2009

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 JULY 23, 2009, PUBLIC MEETING WITH THE BOILING WATER REACTOR OWNER'S GROUP (BWROG), TO DISCUSS THE BWROG REVIEW OF IN-VESSEL DOWNSTREAM EFFECTS FOR BOILING WATER REACTORS (BWRs)

On July 23, 2009, Nuclear Regulatory Commission (NRC) staff met with representatives of the BWROG, in a public meeting in Rockville, Maryland. Enclosure 1 provides a list of those in attendance. Enclosure 2 is the meeting agenda. Non-proprietary information presented at the meeting is available in the NRC Agencywide Documents Access and Management System (ADAMS) under Accession No. ML092180621.

The purpose of the meeting was to discuss the BWROG review of in-vessel downstream effects for BWRs. A portion of this meeting was closed to public participation.

After opening remarks by NRC and the BWROG, Mr. Harry Goodman, Vice-Chairman of the BWROG Suction Strainers Committee presented a briefing regarding the owners' group's overall plans to address in-vessel downstream effects. (Note this presentation was given before the proprietary presentation rather than in the order indicated on the meeting agenda. This change was agreed to by all meeting participants.) Mr. Goodman stated that the BWROG is proposing up to four licensing topical report (LTR) submittals for NRC review and approval of BWROG plans. The first LTR would be prepared by GE-Hitachi (GEH) and would generically analyze blockage effects for determination of limiting conditions and would apply those conditions to the global nuclear fuel (GNF) fuel bundle design. This LTR would include the bundle testing design. The second LTR would be prepared by a third party and would compare the results of the GEH analysis with fuel bundle designs provided by the other two BWR fuel vendors (Areva and Westinghouse) to determine the need for additional testing. The third and fourth LTRs would report the actual test results for Areva and Westinghouse BWR fuel as necessary. Mr. Goodman also presented a schedule of upcoming activities of the BWROG subcommittee for in-vessel downstream effects. There were no questions from a member of the public who attended this portion of the meeting.

Mr. Michael Scott, Chief of the Safety Issues Resolution Branch of the NRC, Office of Nuclear Reactor Regulation, advised the BWROG representatives to consider lessons learned concerning the issue of in-vessel downstream effects through the staff's review of WCAP-16793-NP, "Evaluation of Long Term Core Cooling Associated with Sump Debris Effects." In particular, Mr. Scott indicated that the BWROG would benefit by reviewing the set of requests for additional information the staff has generated in its review of this WCAP. Also, regarding testing, Mr. Scott advised the BWROG to think broadly about variations in debris types and test for the worst case. Further, Mr. Scott requested that the BWROG make available for staff's review their test plan and test rig description before any testing is done.

Following this, a briefing was given by Mr. Jose Luis Casillas and Mr. Curt Robert of the BWROG on BWR loss of coolant accident long-term cooling fuel effects from debris blockages. Since this briefing presented information that is proprietary to GEH, no further discussion of it will be presented here. The sole member of the public who was present for the first presentation was excused from the meeting room for this presentation. A non-proprietary version of this presentation is included in the package of materials for this meeting summary (see ADAMS Accession No. ML092180621).

Enclosure 1: List of Attendees
Enclosure 2: Meeting agenda

Mr. Michael Scott, Chief of the Safety Issues Resolution Branch of the NRC, Office of Nuclear Reactor Regulation, advised the BWROG representatives to consider lessons learned concerning the issue of in-vessel downstream effects through the staff's review of WCAP-16793-NP, "Evaluation of Long Term Core Cooling Associated with Sump Debris Effects." In particular, Mr. Scott indicated that the BWROG would benefit by reviewing the set of requests for additional information the staff has generated in its review of this WCAP. Also, regarding testing, Mr. Scott advised the BWROG to think broadly about variations in debris types and test for the worst case. Further, Mr. Scott requested that the BWROG make available for staff's review their test plan and test rig description before any testing is done.

Following this, a briefing was given by Mr. Jose Luis Casillas and Mr. Curt Robert of the BWROG on BWR loss of coolant accident long-term cooling fuel effects from debris blockages. Since this briefing presented information that is proprietary to GEH, no further discussion of it will be presented here. The sole member of the public who was present for the first presentation was excused from the meeting room for this presentation. A non-proprietary version of this presentation is included in the package of materials for this meeting summary (see ADAMS Accession No. ML092180621).

Enclosure 1: List of Attendees
Enclosure 2: Meeting agenda

ADAMS ACCESSION NUMBER: ML092180632

OFFICE	LA:DPR:PGCB	PM:DPR:PGCB	BC:DPR:PGCB	BC:DCI:CSGB	BC:DSS:SSIB
NAME	CHawes	JGolla	MMurphy	MGavrilas	MScott
DATE	8/10/2009	8/10/2009	8/10/2009	8/12/2009	8/12/2009

List of Attendees for July 23, 2009,
Meeting With The BWROG

Jose Luis Casillas	GEH
Curt Robert	GEH
Harry Goodman	BWROG
Fred Emerson	GEH/BWROG
Mike Crowthers	BWROG
Phillip Rush	MPR Associates
Matt Yoder	NRC/NRR
John Burke	NRC/RES
Mike Scott	NRC/NRR
Erv Geiger	NRC/NRR
Stew Bailey	NRC/NRR
Travis Collins	NRC/RES
William Krotiuk	NRC/RES
Steve Bajorek	NRC/RES
Weidong Wang	NRC/NRO
George Thomas	NRC/NRO
Joe Golla	NRC/NRR

Enclosure 1

MEETING AGENDA
U.S. NUCLEAR REGULATORY COMMISSION (NRC)
WORKING LEVEL MEETING WITH BOILING WATER REACTOR OWNER'S GROUP
(A PORTION OF THIS MEETING WILL BE CLOSED TO THE PUBLIC)
July 23, 2009

1:00-1:10	Introductions and meeting purpose	NRC
1:10-3:00	Presentation by BWROG, analysis results to date of in-vessel downstream effects evaluation ****this portion closed to the public****	BWROG
3:00-3:10	Break	
3:10-4:00	Proposed schedule for resolving in-vessel downstream effects issues	BWROG
4:00-4:30	Discussion	BWROG/NRC
4:30-4:45	Opportunity for public comment	Public/NRC

4:45 Adjourn

Enclosure 2

Memorandum to Michael Scott from Joe Golla

SUBJECT: NOTICE OF PUBLIC MEETING ON JULY 23, 2009, WITH THE BWROG TO DISCUSS THE BWROG REVIEW OF IN-VESSEL DOWNSTREAM EFFECTS FOR BWRs

DISTRIBUTION:

PUBLIC

E-Mail:
RidsNrrOd
RidsNrrAdro
RidsNrrAdes
RidsNrrDss
RidsNrrDci
RidsNrrDpr
RidsNrrDprPgcb
RidsEdoMailCenter
RidsAcrsAcnwMailCenter
RidsOgcMailCenter

Joe Golla
Ralph Architzel
Martin Murphy
Paul Klein
John Lehning
Michael Scott
Ervin Geiger
Matthew Yoder
Mirela Gavrilas
Michelle Honcharik
William Ruland
Sher Bahadur
Stephen Smith
Stewart Bailey
Robert Tregoning
John Burke
Roberto Torres
John Butler (JCB@NEI.ORG)