

April 24, 2003

MEMORANDUM TO: L. Raghavan, Chief, Section 1
Project Directorate III
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

FROM: John G. Lamb, Lead Project Manager, Generic Safety Issue 191 */RA/*

SUBJECT: MEETING BETWEEN THE NUCLEAR REGULATORY COMMISSION
STAFF AND STAKEHOLDERS CONCERNING GENERIC SAFETY
ISSUE 191, "ASSESSMENT OF DEBRIS ACCUMULATION ON PWR
SUMP PERFORMANCE" (TAC NO. MA6454)

The Nuclear Regulatory Commission (NRC) staff met with stakeholders at University of New Mexico Research Park on March 5, 2003, concerning Generic Safety Issue (GSI) 191, "Assessment of Debris Accumulation on [pressurized-water reactor] PWR Sump Performance." Attachment 1 lists the meeting participants. A public meeting notice for the subject meeting was issued on February 14, 2003, and a copy of the meeting notice was posted on the NRC's external (public) web page (ADAMS Accession No. ML030450538).

The purpose of the meeting was to discuss the status of NRC and industry activities for the resolution of GSI-191, as well as hear the viewpoints of stakeholders. The meeting covered five main areas: (1) the NRC generic letter status for the resolution of GSI-191, (2) the NRC research status, (3) NRC comments on Nuclear Energy Institute (NEI) draft Evaluation Methodology Ground Rules, (4) NEI industry activity update, and (5) Los Alamos National Laboratory status.

The NRC staff presented its draft generic letter status for the resolution of GSI-191. The NRC staff expects the draft generic letter will be released for public comment in May 2003.

The NRC research staff presented its current status and plans for resolution of GSI-191 (Attachment 2). The NRC staff stated that Figure A-2 (Attachment 3), a conceptual three-region debris generation model, was inadvertently left out of Draft Guide (DG) -1107, "Water Sources for Long-term Recirculation Cooling Following a Loss-of-Coolant Accident," which was issued for public comment on February 28, 2003. This figure is the same as Figure A-2 in the current Revision 2 of the Regulatory Guide 1.82, "Water Sources for Long-Term Recirculation Cooling Following a Loss-of-Coolant Accident." The NRC staff noted that due to the above change, (1) the figure shown on page A-7 of DG-1107 will be renumbered as A-3, and (2) References to Figures A-2(a) and A-2(b) on page A-3 of DG-1107 will be changed to Figures A-3(a) and A-3(b).

The NRC staff presented its comments on the NEI draft Evaluation Methodology Ground Rules (Attachment 4).

The industry presented its update of its plan to address GSI-191 (Attachment 5). There was a great deal of discussion regarding pipe breach size, fracture mechanics, and how the fracture mechanics approach differs from leak-before-break methodology. Los Alamos National Laboratory (LANL) representatives presented "GSI-191: Analysis of Recovery Options" (Attachment 6) and also discussed its Report No. LA-UR-02-7562 entitled, "The Impact of Recovery From Debris-Induced Loss of ECCS Recirculation on PWR Core Damage Frequency," which is accessible from the Agencywide Documents Access and Management System's (ADAMS) Public Electronic Reading Room on the Internet at the NRC Web site, <http://www.nrc.gov/reading-rm/adams.html>, using the Accession No. ML030690174. In addition, LANL representatives made other presentations (Attachments 7, 8, and 9).

- Attachments:
1. Meeting Attendees
 2. Current Status and Plans Resolution of GSI-191
 3. Multiple Region Insulation Debris Model for PWRs
 4. NRC Comments on NEI Draft Evaluation Methodology Ground Rules, dated 12-12-02
 5. Update of the PWR Industry Plan to Address GSI-191
 6. GSI-191: Analysis of Recovery Options
 7. Debris Accumulation & CalSil Head Loss Testing
 8. Volunteer Plant Containment Pool Flow Analysis
 9. Volunteer-Plant (VP) ECCS Vulnerability Assessment

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- ADAMS Accession No. ML031000578 (Package)
 ADAMS Accession No. ML031000493 (Meeting Summary & Attachment 1)
 ADAMS Accession No. ML (Attachment 2)
 ADAMS Accession No. ML (Attachment 3)
 ADAMS Accession No. ML (Attachment 4)
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 ADAMS Accession No. ML (Attachment 7)
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 ADAMS Accession No. ML (Attachment 9)

OFFICE	PDIII-1/PM	PDIII-1/LA	PDIII-1/SC
NAME	JLamb	RBouling	LRaghavan
DATE	04/23/03	04/23/03	04/24/03

LIST OF ATTENDEES
MEETING BETWEEN THE NUCLEAR REGULATORY COMMISSION (NRC) STAFF AND
STAKEHOLDERS REGARDING GSI-191, "ASSESSMENT OF DEBRIS ACCUMULATION ON
PWR SUMP PERFORMANCE" AT THE UNIVERSITY OF NEW MEXICO RESEARCH PARK
WEDNESDAY, MARCH 5, 2003

<u>NAME</u>	<u>ORGANIZATION</u>
S. Weerakkody	NRC/Office of Nuclear Reactor Regulation (NRR)
J. Lehning	NRC/NRR
R. Architzel	NRC/NRR
J. Lamb	NRC/NRR
T. Hsia	NRC/Office of Nuclear Regulatory Research (RES)
B. Jain	NRC/RES
R. Johns	Los Alamos National Laboratory (LANL)
D. DeCroix	LANL
B. Letellier	LANL
K. Kern	LANL
T. Andreychek	Westinghouse
J. Brown	APS
J. Butler	Nuclear Energy Institute
M. Dinger	Wolf Creek/WOG
C. Shaffer	Ares Corp.
C. Harrington	Texas Utilities
N. Butner	Ares Corp.
B. Byron	TVA/WOG
R. Byron	Enercon Services, Inc.
W. Thomas	Omicron
M. Leonard	Dycoda
C. Dougherty	PG&E
G. Quitariano	PG&E
P. Mabry	Duke Power
R. Oakley	Duke Energy
J. Bleigh	Performance Contracting, Inc.
G. Hart	Performance Contracting, Inc.
J. Cavallo	CCC&L Inc.
J. Gisclon	Electric Power Research Institute
T. Franch	Framatone
D. Boulton	Framatone
J. Walker	Framatone
S. Cain	Alden Research Laboratory, Inc.
M. Padmanabhan	Alden Research Laboratory, Inc.
A. Smith	Enercon Services
A. Ghosh, PhD	University of New Mexico
A. Maji, PhD	University of New Mexico
G. Champion	EDF
D. Lincoln	ITS Corp.
G. Zigler	ITS Corp
*M. Freedman	OPPD
*G. Twachtman	McGraw Hill
*S. Winter	Nuclear Management Company, LLC

*Participated via teleconference