

November 28, 2007

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 OCTOBER 24, 2007, PUBLIC MEETING WITH THE
NUCLEAR ENERGY INSTITUTE (NEI), PRESSURIZED WATER
REACTOR OWNERS GROUP (PWROG), LICENSEES, AND SUMP
STRAINER VENDORS TO DISCUSS THE RESOLUTION OF GENERIC
SAFETY ISSUE (GSI)-191

On October 24, 2007, Nuclear Regulatory Commission (NRC) staff met with representatives of NEI, PWROG, licensees, and sump strainer vendors in a public meeting at the Ramada Inn, 1775 Rockville Pike, Rockville, Maryland. Enclosure 1 provides a list of those in attendance and an individual who participated via teleconference. 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. ML072980654.

The purpose of this meeting was to discuss a variety of issues related to GSI-191 in order to manage the ongoing activities needed to bring GSI-191 to closure.

On October 24, 2007, the meeting was convened by the NRC GSI-191 Project Manager. The Director of the Division of Safety Systems in the Office of Nuclear Reactor Regulation and the Branch Chief of the Safety Issue Resolution Branch (SSIB) followed with additional remarks and a review of the day's agenda.

A representative of General Electric (GE) Hitachi gave an update briefing on chemical effects testing. Testing is scheduled for their clients the last calendar quarter of 2007 and the first calendar quarter of 2008. GE-Hitachi may use results of bench top testing done by Alion Science & Technology at Continuum Dynamics Incorporated for their 4th quarter 2007 testing.

A representative of Atomic Energy Canada Limited (AECL) gave a briefing on the AECL approach to chemical effects assessment and bench top testing. The briefing covered a review of existing data, aluminosilicate formation, methodology for release calculations, aluminum hydroxide and calcium phosphate precipitation, and bench top testing.

At this point, the representative of the NEI and the staff discussed the status of telecons between the staff and the sump strainer vendors. The staff indicated that a number of phone calls have been made with Performance Contracting Incorporated (PCI), one call was made with Alion Sciences & Technology and another one scheduled, two calls were made with Control Components, Incorporated, and a call with GE was made which covered the GE head loss testing methodology but did not cover head loss with chemical effects. It was stated that another call with GE concerning chemical effects testing may be arranged and that possibly Alion would be invited to participate in the call. The staff also gave a brief account of what vendor tests were witnessed.

After the vendor presentations the staff's draft review guidance document was discussed. The NRC SSIB Branch Chief described the purpose, format and content of the document and the expectation for its use. The review guidance document consists of three enclosures each with appendices. Enclosure 1 is titled, "NRC Staff Review Guidance Regarding Generic letter 2004-02 Closure In The Area Of Strainer Head Loss And Vortexing." Enclosure 2 is titled, "Coatings Evaluation Guidance For NRC Review of Generic Letter 2004-02 Supplemental Responses." Enclosure 3 is titled, "Evaluation Guidance for the Review of GSI-191 Plant-Specific Chemical Effect Evaluations." These documents may be viewed in ADAMS at Accession No. ML072600425.

The staff stated that licensees are expected to provide a supplemental response to GL 2004-02, "Potential Impact of Debris Blockage on Emergency Recirculation During Design Basis Accidents at Pressurized-Water Reactors," by December 31, 2007. The purpose of the evaluation guidance document is to establish appropriate evaluation criteria for the staff review of the licensees' GL 2004-02 Supplemental Responses in certain subject areas. The evaluation guidance document may also be utilized by the licensees in developing their GL 2004-02 Supplemental Responses, particularly in the area of chemical effects, if they choose to. The SSIB Branch Chief indicated that licensees need not address the appendices to the enclosures of the document in their GL 2004-02 Supplemental Responses unless the "enclosure calls for that." The SSIB Branch Chief also stated that comments on the document are being solicited from industry and once received and considered, the document will be finalized and issued by the staff.

The staff then discussed the content and quality of the draft NEI "Illustrative Examples" document (see ADAMS Accession No. ML072980654). This is a document written by NEI intended for licensees' use in preparing their GL 2004-02 Supplemental Responses. It presents example responses to the requests for information in the NRC-prepared "Revised Content Guide for Generic Letter 2004-02 Supplemental Responses November 2007" (see ADAMS Accession No. ML073110389). The staff provided comments on the document in the areas of latent debris, debris characteristics, debris transport, and net positive suction head. These comments are provided along with the presentation materials for the meeting in ADAMS at Accession No. ML072980654.

The next topic of discussion was the status of the licensees' GL 2004-02 Supplemental Responses. The NEI representative stated that key remaining areas for licensees to address in preparing their responses are sump strainer qualification testing with chemical effects and downstream effects. He also stated that approximately twenty plants have completed chemical effects testing and that of these, the contribution of chemical effects to sump screen head loss was low for four or five plants. The NEI representative stated that a number of plants will not have their final test reports by year's end and, therefore, will not be in a position to provide a

complete GL 2004-02 Supplemental Response at that time. The topic of extensions of the December 31, 2007, due date for completion of GL 2004-02 corrective actions was then discussed. The NRC SSIB Branch Chief commented on the criteria for granting extensions. The NEI representative proposed that a generic extension be granted to plants who will not be able to complete corrective actions and provide a complete Supplemental Response by December 31, 2007. The NRC SSIB Branch Chief stated that this would not be feasible because it would not be possible to do a generic risk assessment because the parameters for each plant vary significantly. He stated that extension requests would have to be reviewed on a plant-specific basis. The SSIB Branch Chief also stated that the onus of showing that a plant would be operable without undue risk is on the licensees and that if a licensee wants a longer term extension, the licensee would need to do a quantitative risk assessment. He also stated that if a plant is considering requesting an extension of a few months, they should look at current extensions granted as a template for preparing their request.

The NEI representative asked at what point the new licensing basis comes into effect for a plant. The NRC SSIB Branch Chief stated that if an item is not currently described in a plant's Final Safety Analysis Report then it does not invoke the requirements of 10 CFR 50.59 regarding the need for a license amendment. He added that a plant's licensing basis should be promptly updated after all corrective actions for GL 2004-02 are completed. Multiunit sites should make the updates for each unit as soon as this occurs, and should not wait until all actions are complete at all units on the site.

A member of the NRC technical staff gave a presentation on GSI-191 chemical effects follow-on testing. In this presentation the following topics were covered: 1) Results from NRC-Sponsored Tests at Argon National Lab, 2) NRC Conclusions Based on Test Results, and 3) NRC Path Forward on Chemical Effects. This presentation may be viewed at ADAMS Accession No. ML072980654.

The NRC SSIB Branch Chief then gave an update of the status of the NRC GSI-191 plant audit process. This presentation may also be viewed at ADAMS Accession No. ML072980654.

After this a brief update of the status of Topical Report reviews by the staff was given. Topical Reports provide information on a common evaluation methodology which can be used by licensees in evaluating the post-accident performance of their sump screen and emergency core cooling systems. The staff stated that the NRC safety evaluations (SE) for WCAPs 16530 (chemical effects) and 16406 (ex-vessel downstream effects) would be issued in November 2007, and that issuance of the SE for WCAP 16793 (in-vessel downstream effects) would depend on the PWROG resolving remaining staff questions on that document.

Public comments were requested at the end of the meeting. None were provided.

Enclosure 1: List of Attendees

Enclosure 2: Meeting Agenda

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Enclosure 2: Meeting Agenda

ADAMS ACCESSION NUMBER: Package: ML072980654; Memo: ML073230065

OFFICE	LA:DPR:PGCB	PM:DPR:PGCB	BC:DPR:PGCB	BC:DSS:SSIB
NAME	CHawes	JGolla	MMurphy	MScott
DATE	11/19/2007	11/20/2007	11/20/2007	11/28/2007

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List of Attendees for October 24, 2007,
Meeting of NEI, Industry, and NRC

October 24, 2007	
Name	Organization
Bob Peterson	Sargent & Lundy
Thomas Engbring	APS/PUNGS
Michael Heng	Dominion
Leland Cerra	Entergy
Arun Puri	Constellation
Jeremy Fischer	Point Beach
Fariba Gartland	AREVA
Lawrence Fleischer	GE
Jim Furman	GE
Gilbert Zigler	Alion Science & Technology
Shannon Burke	Progress Energy/CR3
Craig Miller	Progress Energy/CR3
Erdal Caba	Progress Energy/RNP
Wes McGoun	Progress Energy
Chuck Feist	Luminant Power
Joe Gasper	OPPD
Steve Kinsey	MPR Associates
David Midlik	SNC
Dan Brosnan	PG&E Diablo Canyon
Bruce Beisler	FPL
Mo Dingler	Wolf Creek & PWROG
Mike Franklin	Progress Energy
E. J. Mistele	Ontario Power Generation

List of Attendees for October 24, 2007,
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October 24, 2007	
Name	Organization
Michael Kai	Dominion
Rich Faix	FPL Energy Seabrook
Andrew Kaufman	Continuum Dynamics, Inc
Chris Kudla	PCI
Glenn Michael	Arizona Public Service
Brian Dunn	Florida Power & Light
Tim Andreychek	Westinghouse
Aaron Smith	Enercon
Jon Cavallo	CCC&L Inc.
William Rinkacs	Westinghouse
Dale M. Vincent	NMC – Prairie Island
Frank Eppler	Duke Energy
Mary Shipley	Duke Energy
Wendi Rapisarda	Exelon/TMI
Addison Hall	Dominion
George Goralski	Entergy/Palisades
Susan D. Simpson	AEP/DC Cook
David Guzonas	AECL
Andre Drake	Constellation Energy
Brian Davenport	Exelon Nuclear
Gary D. Miller	Dominion
Kiran Mathur	Public Service Elec & Gas
Deann Raleigh	Scientec

List of Attendees for October 24, 2007,
Meeting of NEI, Industry, and NRC

October 24, 2007	
Name	Organization
Paul Leonard	AEP/I&M/DC Cook
Michael D. Quinn	FPLE – Seabrook
Victor Linnenbom	FENOC – Beaver Valley
Kenneth Petersen	STARS
Jason Redd	Southern Nuclear
Mike Testa	First Energy
Elliot Rosenfeld*	New Jersey Bureau of Nuclear Energy
Kirk Troxler	First Energy
John Butler	NEI
Ralph Landry	NRC
Ching H Ng	NRC
Leon Whitney	NRC
Erv Geiger	NRC
Tim Collins	NRC
John Lehning	NRC
David Bessette	ACRS/NRC
Ata Istar	NRC
Steve Smith	NRC
John Burke	NRC
Emma Wong	NRC
Allen Hiser	NRC
Paul Klein	NRC
Michael Scott	NRC

List of Attendees for October 24, 2007,
Meeting of NEI, Industry, and NRC

October 24, 2007	
Name	Organization
Matt Yoder	NRC
Bill Bateman	NRC
Joe Golla	NRC

*participated via teleconference

MEETING AGENDA
U.S. NUCLEAR REGULATORY COMMISSION
MEETING WITH NEI, PWROG, LICENSEES, AND SUMP STRAINER VENDORS
TO DISCUSS GENERIC SAFETY ISSUE 191
OCTOBER 24, 2007
(Some portions may be closed)

8:30-8:40	Introduction and meeting purpose	NRC/NEI
8:40-9:40	Results of strainer testing with chemical effects	Vendor (TBD)
9:40-9:50	Break	
9:50-10:50	Results of strainer testing with chemical effects	Vendor (TBD)
10:50-11:50	Comments on draft NRC review guidance document	NEI/NRC
11:50-12:00	Opportunity for public comment or questions	Public/NRC
12:00-1:00	Lunch	
1:00-2:30	Status of preparation of supplemental responses to Generic letter 2004-02	NEI/NRC
2:30-2:50	Chemical effect tests of chemical precipitates	NRC
2:50-3:00	Break	
3:00-4:00	Status of topical report reviews	NRC
4:00-4:15	Audits update	NRC
4:15-4:30	Opportunity for public comment or questions	Public/NRC
4:30	Adjourn	

Memorandum to Michael L. Scott from Joseph A. Golla

SUBJECT: MEETING SUMMARY OF PUBLIC MEETING WITH NEI AND INDUSTRY ON
OCTOBER 24, 2007, TO DISCUSS TOPICS RELATED TO GSI-191

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WJensen (WLJ)

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SSmith (SJS2)

JBurke (JPB3)

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