



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

March 6, 2012

LICENSEE: STP Nuclear Operating Company

FACILITY: South Texas Project, Units 1 and 2

SUBJECT: SUMMARY OF FEBRUARY 9, 2012, PRE-LICENSING PUBLIC MEETING WITH STP NUCLEAR OPERATING COMPANY HELD VIA CONFERENCE CALL TO DISCUSS THE PROPOSED RISK-INFORMED APPROACH TO THE RESOLUTION OF GSI-191, "ASSESSMENT OF DEBRIS ACCUMULATION ON PWR SUMP PERFORMANCE" (TAC NOS. ME7735 AND ME7736)

On February 9, 2012, a public meeting was held via conference call between the U.S. Nuclear Regulatory Commission (NRC), and representatives of STP Nuclear Operating Company (STPNOC, the licensee), at NRC Headquarters, Rockville, Maryland. The meeting notice and agenda, dated January 10, 2012, is located in the Agencywide Documents Access and Management System (ADAMS) under Accession No. ML120090101. The purpose of the meeting was to discuss the proposed risk-informed approach to the resolution of Generic Safety Issue (GSI)-191, "Assessment of Debris Accumulation on PWR [Pressurized-Water Reactor] Sump Performance." South Texas Project (STP) is the lead plant and STPNOC plans to submit a license amendment request before the end of the year. The licensee previously provided an overview of its proposed approach during the public meetings held on June 2, July 6, July 26, August 22, October 3, November 1, November 2, and December 1, 2011¹. The purpose of this conference call was to have a follow-up discussion on chemical effects testing. This topic was previously discussed during public meetings held on June 2, November 1, and December 1, 2011.

A list of meeting attendees is provided in the Enclosure to this meeting summary.

Meeting Summary

The licensee provided a copy of the following documents prior to the meeting:

- Slide presentation, "STP Risk-Informed Approach to NRC Generic Safety Issue 191 (GSI-191)," listing the team members and their qualifications, schematic representation of the integrated model developed for the risk-informed GSI-191 project, and plan (flow diagram) for risk-informed chemicals effect testing (ADAMS Accession No. ML120440065).

¹ Summaries of the meetings held on June 2, July 7, July 26, August 22, October 3, November 1, and November 2, and December 1, 2011, are available in ADAMS Accession Nos. ML111640160, ML111950094, ML112130165, ML112411419, ML112840114, ML113120129, ML113180196, and ML113430087, respectively.

- Summary of the meeting on January 26-27, 2012, with Nuclear Energy Institute (NEI) (ADAMS Accession No. ML120440060).

However, STPNOC did not provide any additional information in support of the topic of discussion for the meeting on February 9, 2012.

Results of Discussions

- The NRC staff and the licensee discussed the schematic for risk-informed chemicals effect testing provided on Slides 9-14. The licensee clarified how sampling of weld breaks at various locations was used to develop complementary cumulative distribution functions to support estimated recirculation failure and differential pressure across fuel assemblies. The licensee stated that separate estimates were calculated for small-, medium- and large-break loss-of-coolant accidents (LOCAs). The licensee further stated that no credit for containment overpressure was taken to simplify the interface with the Probabilistic Risk Assessment (PRA). This includes scenarios with and without containment isolation.
- As a follow-up to the January 26-27, 2012, public meeting with NEI, the NRC staff and the licensee discussed the scaling of screen area-to-water volume in the chemical effects head loss experiment (CHLE) relative to the sump strainer area-to-pool volume in the plant following a LOCA. The NRC staff had stated during the January public meeting with NEI that a greater than representative screen area in the CHLE test could be non-conservative since any chemical precipitate that was formed and transported to the test screen would be spread over a larger area. The licensee stated that the screen area-to-water volume in the CHLE test was less than the plant ratio.
- The NRC staff and the licensee also discussed potential modifications to the CHLE facility that would involve reducing the size of the piping loop intended to cool and reheat the test fluid. The licensee indicated that cooling and reheating a 6-inch loop could potentially create experimental difficulties with temperature control within the CHLE tank. The NRC staff agreed in principle that a smaller side loop for temperature control may be a better option and agreed to discuss the matter during future discussions when more details are available.
- The NRC staff indicated its concerns on the use of thermodynamic equilibrium programs in the overall STP risk-informed approach to chemical effects. The NRC staff indicated that these types of programs can be useful for considering a range of precipitates that may form in a given environment. However, the staff indicated that it is still skeptical about the ability of thermodynamic programs to predict the actual precipitates since the first precipitates to form during post-LOCA mission times may be metastable species and thermodynamic equilibrium conditions are not be expected to be achieved during an Emergency Core Cooling System mission time.

No Public Meeting Feedback Forms were received for this meeting.

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Please direct any inquiries to me at (301) 415-3016, or balwant.singal@nrc.gov.

Sincerely,

for 

Balwant K. Singal, Senior Project Manager
Plant Licensing Branch IV
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket Nos. 50-498 and 50-499

Enclosure:
List of Attendees

cc w/encl: Distribution via Listserv

LIST OF ATTENDEES

FEBRUARY 9, 2012, MEETING WITH STP NUCLEAR OPERATING COMPANY
REGARDING RISK-INFORMED APPROACH TO RESOLUTION OF GSI-191 ISSUE
SOUTH TEXAS PROJECT, UNITS 1 AND 2
DOCKET NOS. 50-498 AND 50-499

NAME	TITLE	ORGANIZATION
Steve Blossom*	Project Manager, Special Projects	STPNOC
Ernie Kee*	Risk Management	STPNOC
Rodolfo Vaghetto*	-	Texas A&M University
Zahra Mohaghegh	-	Soteria Consultants
Seyed Reihani	-	Soteria Consultants
Craig Sellers	-	Alion Science and Technology**
Tim Sande*	Principal Engineer	Alion Science and Technology**
Kerry Howe*	-	University of New Mexico**
Janet Leavitt	-	University of New Mexico**
Gil Zigler*	-	Alion Science and Technology**
Bruce Letellier*	-	Las Alamos National Laboratory**
David Midlik	Nuclear Licensing Engineer	Southern Nuclear Company
Phillip Grissom*	Principal Engineer	Southern Nuclear Company
Amir Afzali	Risk Informed Engineering Director	Southern Nuclear Company
Michael Snodderly	Senior Reliability and Risk Engineer	U.S. Nuclear Regulatory Commission (NRC)
Kaly Kalyanam	Project Manager	NRC
Steve Dinsmore	Senior Reliability and Risk Engineer	NRC
Erv Geiger	Senior Engineer	NRC
Stewart Bailey	Branch Chief	NRC
Steve Smith	Reactor Systems Engineer	NRC
Matt Yoder	Senior Chemical Engineer	NRC
Paul Klein	Senior Materials Engineer	NRC
Gloria Kulesa	Branch Chief	NRC

* Participated via phone

** Represented STPNOC

Enclosure

Please direct any inquiries to me at (301) 415-3016, or balwant.singal@nrc.gov.

Sincerely,

/RA by N. Kalyanam for/

Balwant K. Singal, Senior Project Manager
Plant Licensing Branch IV
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket Nos. 50-498 and 50-499

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DISTRIBUTION:

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EGeiger, NRR/DSS/SSIB

ADAMS Accession No. ML120620541

***Via E-mail**

OFFICE	NRR/LPL4/PM	NRR/LPL4/LA	NRR/DRA/APLA	NRR/DSS/SSIB/BC
NAME	KKalyanam	JBurkhardt	MSnodderly*	SBailey*
DATE	3/6/12	3/5/12	2/28/12	3/6/12
OFFICE	NRR/DE/ESGB/BC	NRR/LPL4/BC	NRR/LPL4/PM	--
NAME	GKulesa*	MMarkley (BSingal for)	BSingal (NKalyanam for)	
DATE	2/29/12	3/6/12	3/6/12	

OFFICIAL RECORD COPY