

November 2, 2015

MEMORANDUM TO: Anthony J. Mendiola, Chief
Licensing Processes Branch
Division of Policy and Rulemaking
Office of Nuclear Reactor Regulation

FROM: Joseph A. Golla, Project Manager */RA/*
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SUBJECT: SUMMARY OF AUGUST 14, 2015, INDUSTRY/U.S. NUCLEAR
REGULATORY COMMISSION ANNUAL MATERIALS
PROGRAMS INFORMATION EXCHANGE – EXECUTIVE
SESSION (CATEGORY 2 PUBLIC MEETING)

On August 14, 2015, staff from the U.S. Nuclear Regulatory Commission (NRC) met with representatives of the nuclear industry in the annual executive session for materials program information exchange. The purpose of the annual meeting is for management representatives from the Office of Nuclear Reactor Regulation and Office of Nuclear Regulatory Research to discuss with executive representatives of industry materials programs, from a management perspective, issues related to materials degradation in pressurized water reactors (PWRs) and boiling water reactors (BWRs). The attending industry materials programs include the Electric Power Research Institute (EPRI) Materials Reliability Program (MRP), EPRI BWR Vessels and Internals Project (BWRVIP), EPRI Steam Generator Management Program (SGMP), Materials Action Plan Committee, the PWR Owners Group (PWROG) Materials Subcommittee, and the EPRI Long Term Operations (LTO) Committee. A list of meeting attendees is enclosed. The meeting presentation slides can be found in the Agencywide Documents Access and Management System (ADAMS) under Accession No. ML15230A163. The meeting notice is available under ADAMS Accession No. ML15131A410.

The NRC staff opened the meeting with some introductory remarks. The technical chair of the EPRI Materials Action Plan Committee (MAPC) reviewed the Nuclear Energy Institute Materials Initiative NEI 03-08 program organization and presented a status update for the Primary System Corrosion Research (PSCR) committee's irradiation assisted stress corrosion crack growth report and discussed ongoing activities related to cast austenitic stainless steel in reactor vessel internals. He also outlined the Branch Technical Position 5-3 project plan and discussed prioritization of PSCR research and development activities.

The executive sponsor of the BWRVIP discussed the BWRVIP organization, technical committee responsibilities, and 2015 major tasks. The major tasks include: evaluating the shroud cracking boat sample; optimizing inspection and evaluation guidelines; evaluating the impact of GE-Hitachi Nuclear Company safety communications on BWRVIP guidelines; and addressing jet pump flow-induced vibration issues. Finally, he requested that the NRC consider

the BWRVIP response to the draft safety evaluation of BWRVIP-183, the Top Guide Beam Inspection and Evaluation Guidelines.

The executive chairman of the MRP described the organizational structure, history, and membership. He listed and described MRP documents that currently have mandatory or needed implementation elements and reviewed the key 2015 products. He discussed new thermal fatigue management guidance, the topical report for peening mitigation, including a perception about NRC consideration of industry probabilistic fracture mechanics analyses, the status of MRP-227, Revision 1, for PWR internals inspection and evaluation, cold work in austenitic stainless steels, and bottom mounted nozzle ultrasonic inspection code case development. The NRC staff noted that the schedule for the peening submittal was to complete the review by December.

The executive chair of the SGMP provided an overview of the SGMP organization. The presentation covered open technical issues and guideline revision status. Current issues being evaluated include divider plate and tube-to-tubesheet weld crack propagation, mechanical wear of tubes due to contact with support structures and foreign objects, and improved inspection capabilities. He also discussed plans for in-plane fluid elastic instability testing.

The technical chair of the MAPC discussed the organizational structure, NRC interactions, and areas of strategic planning of the PWROG Materials Subcommittee. Focus areas for 2015-2016 includes work to support MRP-227-A, reactor vessel integrity activities, subsequent license renewal, and development of contingency repair designs for branch connection nozzles. Topics of NRC interaction included development of a materials orientation toughness assessment, development of reactor internals acceptance criteria methodology, lower support column functionality, and guide card wear.

The EPRI LTO presented an overview of issues associated with LTO of plants. The focus of the presentation was key research and development areas related to life-limiting components. The overall conclusion was that existing ageing management programs, with appropriate enhancement, should be successful in supporting LTO.

The NRC described its efforts to improve efficiency in staff support of the American Society of Mechanical Engineers (ASME) *Boiler and Pressure Code*. The NRC also discussed the schedule for addressing technical issues related to subsequent license renewal.

Following the industry presentations, the NRC staff highlighted recent operating experience associated with materials degradation.

This concluded the discussions among the staff and industry. No external stakeholders attended. No comments or questions were received from members of the public that were participating via teleconference.

The following new action items were recorded:

1. NRC and industry will meet at the technical level to discuss applications of probabilistic fracture mechanics analyses.

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2. NRC and industry will schedule further discussions related to development of an ASME code case for ultrasonic examination of bottom mounted nozzles.
3. NRC and industry to conduct a follow-up discussion on operational leakage.

Project Nos. 669, 689, 691, 694, and 704

Enclosure:
List of Attendees

2. NRC and industry will schedule further discussions related to development of an ASME code case for ultrasonic examination of bottom mounted nozzles.

3. NRC and industry to conduct a follow-up discussion on operational leakage.

Project Nos. 669, 689, 691, 694, and 704

Enclosure:
List of Attendees

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NAME	JGolla	DHarrison	RHardies	AMendiola	JGolla
DATE	10/27/2015	10/8/2015	10/24/2015	10/30/2015	11/2/2015

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**NRC Public Meeting
Annual Materials Programs Information Exchange Meeting
Executive Session
August 14, 2015**

David Czufin	TVA
Tim Hanley	Exelon
Scot Greenlee	Exelon
Kurt Edsinger	EPRI
Robin Dyle	EPRI
Mike Gallagher	Exelon
Tina Taylor	EPRI
MJ Ross-Lee	NRC
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