

September 6, 2012

MEMORANDUM TO: Sheldon Stuchell, Acting Chief  
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Division of Policy and Rulemaking  
Office of Nuclear Reactor Regulation

FROM: Joseph J. Holonich, Sr. Project Manager */RA/*  
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Office of Nuclear Reactor Regulation

SUBJECT: SUMMARY OF JULY 20, 2012, ANNUAL INDUSTRY/  
U.S. NUCLEAR REGULATORY COMMISSION MATERIALS  
PROGRAMS TECHNICAL INFORMATION EXCHANGE  
MEETING

On July 20, 2012, the U.S. Nuclear Regulatory Commission (NRC) staff hosted a Category 2 public meeting at NRC headquarters in Rockville, MD with representatives from industry. The purpose of the meeting was to discuss material program activities. Industry attendees included representatives from the Electric Power Research Institute's (EPRI's) Materials Reliability Program (MRP), Non-destructive Examination Improvement Focus Group (NIFG), Boiling Water Reactor (BWR) Vessel Internals Program (BWRVIP), and the Materials Subcommittee (MSC) of the Pressurized Water Reactor (PWR) Owners Group (PWROG).

The NRC staff and industry representatives discussed progress in materials programs designed to provide information related to stress corrosion cracking, non-destructive examination, reactor vessel surveillance, dissimilar-metal (DM) welds, and vessel internals examination, among other topics. Presentations are available electronically in the NRC's Agencywide Documents Access and Management System (ADAMS) under accession number ML12202B161.

The meeting began with introductory remarks from the NRC staff and a review of current operating events related to materials degradation. In particular, the NRC staff discussed operating experience related to examination of dissimilar metal welds, degradation of top and bottom reactor vessel head penetrations, and the use of seal cap enclosures. The NRC staff also discussed potential issues related to reactor vessel embrittlement management. The BWRVIP provided an update of the status of DM weld examinations in BWRs, status and plans for topical report reviews, and a discussion of re-inspection scheduling.

The NIFG presented its plans and status addressing DM weld inspection issues. The representatives presented an aggressive schedule for working on a list of 29 action items. The PWROG and MRP representatives described PWR internals operating and inspection experience, and discussed development of guidance and research activities. The PWROG representatives reviewed the status of revision 2 of the boric acid inspection guidance, provided an update on their program for addressing inspection of bolting associated with seal cap enclosures, and reviewed a pressurizer heater sheath reliability evaluation.

The MRP representatives described the reactor vessel surveillance material research program, the coordinated program to develop high-fluence data, and plans for a supplemental program to develop additional high-fluence data. The MRP representatives also discussed plans for submitting a topical report on peening. They stated their objective is to understand the conditions the NRC may ultimately place on peening in order to support inspection credit. Finally, the MRP reviewed Alloy 600 operating experience, including top and bottom head penetration degradation.

The following actions items were noted:

Industry plans to meet with their French counterparts to discuss bottom-head penetrations. The NRC plans to meet with its French counterparts to discuss bottom-head penetrations. If the information discussed in both meetings is permitted to be exchanged, then the NRC and industry will meet to discuss what they learned.

The PWROG will provide the NRC staff with revision 2 of the boric acid guidelines.

Industry and NRC license renewal personnel will establish communications about the license renewal interim staff guidance and other internals inspection issues.

The NRC staff will schedule a conference call to discuss the responses to requests for additional information related to WCAP-17096, "Reactor Internals Acceptance Criteria Methodology and data Requirements."

The industry will initiate a telephone call or meeting to discuss templates for licensees to use to request permission to use portions of surveillance program specimens for embrittlement research.

The Office of Nuclear Regulatory Research (RES) staff will initiate a discussion with industry about potential collaboration on testing of surveillance program materials.

The MRP will review the technical basis document for head inspection periodicity to ensure the potential for cracking of weld material is addressed.

Industry will consider sending the NRC the MRP 206 report on bottom mounted instrumentation nozzles.

The BWRVIP, the MRP, and the Division of License Renewal staff will initiate a conference call to discuss fee waivers.

The industry will consider inviting the NRC to the nondestructive examination (NDE) working group meeting during the week of August 20, 2012, or holding a conference call during the meeting.

The industry and RES staff will communicate to discuss the potential for NRC to get near-term access to site-specific mock-ups or share data.

The industry and NRC will work within the American Society of Mechanical Engineers Boiler and Pressure Vessel Code to address site-specific mock-up requirements. Status will be discussed during quarterly calls.

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The NRC is seeking plant-specific information related to use of site specific mock ups. The industry will consider providing information.

The RES staff and EPRI NDE center staff will initiate discussions related to ultrasonic testing modeling and considerations for sharing work or results.

The attendance list is enclosed. Members of the public were not in attendance.

Please direct any inquiries to Robert Hardies at 301-415-5802 or via e-mail at [Robert.Hardies@nrc.gov](mailto:Robert.Hardies@nrc.gov).

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

Enclosure:  
List of Attendees

cc w/encl: See next page

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NAME	JHolonich	DBaxley	SStuchell	JHolonich
DATE	9/6/2012	8/30/2012	9/6/2012	9/6/2012

**OFFICIAL RECORD COPY**

List of Attendees

July 20, 2012

**ANNUAL INDUSTRY/U.S. NUCLEAR REGULATORY COMMISSION (NRC)  
MATERIALS PROGRAMS TECHNICAL INFORMATION EXCHANGE MEETING**

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Mark Kirk	U.S. Nuclear Regulatory Commission
Kurt Edshinger	Electric Power Research Institute (EPRI)
Anne Demma	EPRI
Tim Hardins	EPRI
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