

February 10, 2014

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

FROM: Joseph J. Holonich, Senior Project Manager /RA/
Licensing Processes Branch
Division of Policy and Rulemaking
Office of Nuclear Reactor Regulation

SUBJECT: SUMMARY OF THE DECEMBER 3, 2013, CLOSED MEETING
ON THE RESOLUTION OF APPLICANT/LICENSEE ACTION
ITEMS RELATED TO MATERIALS RELIABILITY PROGRAM-
227-A PRESSURIZED WATER REACTOR INTERNALS
INSPECTION AND EVALUATION GUIDELINES

On December 3, 2013, the U.S. Nuclear Regulatory Commission (NRC) staff met with representatives from the Electric Power Research Institute (EPRI), Westinghouse Electric Corporation, and utilities. The purpose of the meeting was to continue the discussion of issues related to resolution Applicant/Licensee Action Item 7 (A/LAI 7) of MRP [Materials Reliability Program]-227-A, "Pressurized Water Reactor Internals Inspection and Evaluation Guidelines," which requires licensees to submit a plant-specific analysis of cast austenitic stainless steel (CASS) reactor vessel internals (RVI) components.

The meeting was closed because proprietary information was discussed at the meeting. Publically available information and a public version of a presentation for the meeting can be found in the Agencywide Documents Access and Management System (ADAMS) as Accession Nos. ML13338A269 and ML13338A262. The meeting notice and final meeting agenda can be found in ADAMS as Accession No. ML13329A046. A list of attendees is enclosed.

In its introductory remarks the NRC staff noted that it was open to finding a generic path to address A/LAI 7 related to MRP-227-A. The industry representatives indicated that this meeting was a follow on to the November 19, 2013, meeting (ADAMS Accession No. ML13345A020). The goal expressed by industry was to generically address requests for additional information (RAIs) pertaining to A/LAI 7 in a single deliverable, where appropriate.

At this meeting, the industry expressed that it wanted to provide additional information to the NRC staff regarding topics discussed at the public meeting held on November 19, 2013. They also stated that feedback from NRC staff would be helpful in providing a product that completely addressed the issues.

The presentations made by industry covered the following elements specifically for lower support column bodies in Westinghouse-design RVI: 1) material, fabrication, and failure modes,

effects, and consequences analysis (FMECA), 2) operating experience and inspection accessibility/feasibility and 3) design/safety considerations. During the first presentation, the NRC staff said that a generic report would be acceptable but the staff would still expect to have some plant-specific information like a summary of certified material test reports (CMTRs) and a summary of pre-service fabrication inspection requirements. The staff indicated that it may be possible to resolve A/LAI 7 for some plants using a screening approach if plant-specific material information is available, in particular the ferrite content of the CASS lower support column bodies. To use such a screening approach, the staff indicated that the acceptable maximum ferrite content would need to be revised from existing NRC guidance for aging management of CASS to account for the higher neutron fluence received by CASS RVI components.

Industry representatives indicated that they believe a generic approach to resolving A/LAI 7 may be feasible because there is sufficient similarity between plants to permit a generic or bounding approach.

In its closing remarks, the NRC staff stated that for some components, additional inspections in the current cycle may not need to be done. However, in the future the NRC staff could have a different view. The additional operating time coupled with new technologies could make the need and capability to conduct inspections of core-support assemblies greater.

The NRC staff also stated that it would be interested in hearing if the industry could conduct a partial inspection of core-support assemblies. Also, the NRC staff said that it would issue follow-up RAIs for the four plants currently under review.

The EPRI representative stated that the industry submission would cover cast material and support structures plus discuss the quality information on the fabrication of the lower-support columns using available information from the original fabrication quality protocols.

effects, and consequences analysis (FMECA), 2) operating experience and inspection accessibility/feasibility and 3) design/safety considerations. During the first presentation, the NRC staff said that a generic report would be acceptable but the staff would still expect to have some plant-specific information like a summary of certified material test reports (CMTRs) and a summary of pre-service fabrication inspection requirements. The staff indicated that it may be possible to resolve A/LAI 7 for some plants using a screening approach if plant-specific material information is available, in particular the ferrite content of the CASS lower support column bodies. To use such a screening approach, the staff indicated that the acceptable maximum ferrite content would need to be revised from existing NRC guidance for aging management of CASS to account for the higher neutron fluence received by CASS RVI components.

Industry representatives indicated that they believe a generic approach to resolving A/LAI 7 may be feasible because there is sufficient similarity between plants to permit a generic or bounding approach.

In its closing remarks, the NRC staff stated that for some components, additional inspections in the current cycle may not need to be done. However, in the future the NRC staff could have a different view. The additional operating time coupled with new technologies could make the need and capability to conduct inspections of core-support assemblies greater.

The NRC staff also stated that it would be interested in hearing if the industry could conduct a partial inspection of core-support assemblies. Also, the NRC staff said that it would issue follow-up RAIs for the four plants currently under review.

The EPRI representative stated that the industry submission would cover cast material and support structures plus discuss the quality information on the fabrication of the lower-support columns using available information from the original fabrication quality protocols.

DISTRIBUTION:

PUBLIC	RidsAcrcAcnwMailCenter	RidsNrrDpr	RidsNroOd
RidsNrrDprPlpb	RldsNrrLADBaxley	RidsResOd	RidsOgcMailCenter
RidsNrrDeEvib	JHolonich	JPoehler	SRosenberg
GCherukenki	PPurtscher	RHardies	AHiser
MYoo	JJenkins	PLPB R/F	

**ADAMS Accession Nos.: ML13345A320 (Summary); ML13329A046 (Notice);
ML13338A269 (Package); Presentation (ML13338A262) NRC-001**

OFFICE	PLPB/PM	PLPB/LA	DE/EVIB/BC	PLPB/BC	PLPB/PM
NAME	JHolonich	DBaxley	SRosenberg	AMendiola	JHolonich
DATE	12/11/2013	12/19/2013	01/30/2014	02/06/2014	02/10/2014

CLOSED MEETING ON THE RESOLUTION OF PLANT-SPECIFIC ACTION ITEMS RELATED TO MRP [MATERIALS RESEARCH PROGRAM]-227-A REACTOR INTERNALS AGING MANAGEMENT PROGRAMS/INSPECTION PLANS

December 3, 2013

Name	Organization	Telephone	Email
Joseph Holonich	NRC/NRR	301-415-7297	Joseph.Holonich@nrc.gov
Robert Hardies	NRC		Robert.Hardies@nrc.gov
Ganesh Cheruvenki	NRC		Ganesh.Cheruvenki@nrc.gov
Patrick Purtscher	NRC		Patrick.Purtscher@nrc.gov
Stacey Rosenberg	NRC		Stacey.Rosenberg@nrc.gov
Jeffrey Poehler	NRC		Jeffrey.Poehler@nrc.gov
Kyle Amberge	EPRI	650-804-8037	kamberge@epri.com
Cheryl L. Boggess	Westinghouse	412-374-4692	boggescl@westinghouse.com
Bernard C Rudell	CENG	443-532-5345	Bernie.Rudell@cengllc.com
Glenn Gardner	Dominion	860-440-0373	Glenn.a.gardner@dom.com
Randy Lott	Westinghouse	412-374-4157	lottrg@westinghouse.com
Bryan Wilson	Westinghouse	412-374-3281	wilsonbm@westinghouse.com
Allen Hiser	NRC		Allen.Hiser@nrc.gov

ENCLOSURE

CLOSED MEETING ON THE RESOLUTION OF PLANT-SPECIFIC ACTION ITEMS RELATED TO MRP [MATERIALS RESEARCH PROGRAM]-227-A REACTOR INTERNALS AGING MANAGEMENT PROGRAMS/INSPECTION PLANS				
December 3, 2013				
Name	Organization	Telephone	Email	
Mark Yoo	NRC		Mark.Yoo@nrc.gov	
Joel Jenkins	NRC		Joel.Jenkins@nrc.gov	
Mike Burke	Westinghouse	412-374-4172	burkema@westinghouse.com	