

December 26, 2002

MEMORANDUM TO: Christopher I. Grimes, Program Director  
Policy and Rulemaking Programs  
Division of Regulatory Improvement Programs, NRR

FROM: Joseph L. Birmingham, Project Manager */RA/*  
Policy and Rulemaking Program  
Division of Regulatory Improvement Programs, NRR

SUBJECT: SUMMARY OF OCTOBER 31, 2002, MEETING WITH NUCLEAR  
ENERGY INSTITUTE (NEI) ON THE STATUS OF DISSIMILAR METAL  
WELD EXAMINATION DEMONSTRATION AND QUALIFICATION

On October 31, 2002, Nuclear Regulatory Commission (NRC) staff met with representatives from NEI and industry at the NRC's office in Rockville, Maryland. The purpose of the meeting was to discuss the status of actions for demonstration and qualification of dissimilar metal (DM) weld examinations. Attachment 1 is a list of those that attended the meeting. Attachment 2 is the presentation material NEI used for the meeting (ADAMS Accession No. ML023050212).

The meeting began with introductions and a statement of the purpose of the meeting from Bill Bateman of the NRC. Mr. Alex Marion, of NEI, stated that industry wished to provide the status of implementation of 10 CFR 50.55a requirements for DM weld examination qualifications per ASME Section XI, Appendix VIII, Supplement 10; to address NRC questions about industry's efforts to implement Supplement 10; and discuss regulatory options with the staff. He then introduced several speakers who presented the information in the NEI slides.

The speakers presented a timeline showing that Supplement 10 was first published in the 1989 Addenda of ASME Section XI and that a 10 CFR 50 Rule published September 22, 1999 incorporated the 1995/1996 Addenda of ASME Section XI including Supplement 10. At that time, representatives of the Electric Power Research Institute (EPRI) Performance Demonstration Initiative (PDI) agreed that the implementation date would be November 22, 2002. The timeline continued with details of efforts by the EPRI Nondestructive Examination (NDE) Center to design a set of appropriate DM weld qualification test samples. The speakers explained that the original plan for development of the DM weld samples was changed after the discovery of Primary Water Stress Corrosion Cracking (PWSCC) in reactor coolant system (RCS) DM welds at Ringhals and V.C. Summer in 2000. In addition, the scope of the program was expanded to include the examinations from inside the pipe. The discovery of PWSCC and expansion of scope required additional DM weld samples. Industry stated that these changes impacted the original schedule by approximately 12 months. Industry provided additional information on the efforts to develop acceptable weld samples for practice sets and for qualification sets.

In response to an NRC question, industry indicated that the additional complexity in the weld sample design resulting from the information at Ringhals and V.C. Summer, and the expansion of scope to include examination performed from inside the pipe, were the biggest factors in extending the implementation schedule. To capture actual field failure configurations, additional test specimens were needed. Industry indicated that these complexities could not have been considered when the implementation date of November 22, 2002 was agreed to in 1999.

Industry provided responses to a set of staff questions provided to NEI before the meeting. The questions mainly elicited what actions and priority industry had applied to the implementation of Supplement 10 and also identified the plants planning to be in outages in the Spring of 2003. Details of industry's responses are in Attachment 2. NEI formally responded to the staff's questions in a letter dated November 21, 2002.

Industry presented diagrams of typical DM weld configurations. The diagrams showed that several layers of different filler materials are applied in making up a DM weld. The many layers and the angles of the filler material are factors in examination of the welds. Industry has identified some limitations in the identification of small axial flaws because they can only be installed in the width of the weld. NEI believes that these flaws are not structurally significant. Industry is near to having procedures and some personnel qualified for the examination of selected DM weld configurations.

Industry then proposed options to address implementation of Supplement 10. The options were a generic exemption, a direct final rule, and an enforcement guidance memorandum (EGM). Industry said that EGM 99-004, Enforcement of 10 CFR 34.43, "Training," dated June 29, 1999 was a past precedent for a situation similar to that which confronts the industry now regarding dissimilar weld examination. A representative from the Office of Enforcement stated that enforcement discretion is usually only applied when a licensee or group of licensees could not reasonably have foreseen the concern and the staff determines that there is no immediate safety concern. The staff noted that a direct final rule could be considered but would take several months to implement even if it were approved. Regarding a generic exemption, the staff responded that it was not aware of a regulatory provision for a generic exemption process. Representatives of the Office of the General Counsel (OGC) said that the rule needed to be looked at closely to determine the intent of the regulation which would then influence how the staff would address noncompliance to this aspect of 10 CFR 50.55a(g)(6)(ii)(C). The OGC representatives also said that 10 CFR 50.55a(a)(3) provides for licensees to propose alternatives to the rule provided the alternatives met identified criteria. The group discussed whether the rule required licensees to have Supplement 10 implementation complete by November 22, 2002 or whether the intent of the rule allowed plants to meet Supplement 10 at the time when DM weld examinations would be performed after that date. The group also discussed what the NRC action could be if implementation of Supplement 10 was not complete and a noncompliance finding was made by the inspection process. The staff indicated that the finding would be entered into the significance determination process to be assessed.

After discussing the various options, the staff agreed to ask OGC for guidance on the rule and to consider the options discussed with industry. Industry agreed to provide any additional information requested and to update the staff on the continued status of qualifying weld examiners per Supplement 10.



C. Grimes

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Having completed the agenda items, the meeting was adjourned.

Attachments: As stated  
PROJECT No. 689  
cc: Alex Marion, NEI

C. Grimes

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Having completed the agenda items, the meeting was adjourned.

Attachments: As stated  
PROJECT No. 689  
cc: Alex Marion, NEI

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Nuclear Energy Institute

Project No. 689

cc:    via email  
      Mr. Alex Marion, Director  
      Programs  
      Nuclear Energy Institute  
      am@nei.org  
  
      Mr. Kurt Cozens, Sr. Project Mgr.  
      Nuclear Energy Institute  
      koc@nei.org



**List of attendees for 10/31/02 meeting on dissimilar metal weld qualification**

<u>Name</u>	<u>Organization</u>
Alex Marion	NEI
Robin Dyle	Southern Nuclear Co.
G. M. Bratton	EPRI PDI
Mike Turnbow	EPRI NDE Center
Frank Ammirato	EPRI NDE Center
Carl Latiolais	EPRI NDE Center
Larry Becker	EPRI NDE Center
Bill Bateman	NRC\NRR\EMCB
Terence Chan	NRC\NRR\EMCB
Don Naujock	NRC\NRR\EMCB
Dave Nelson	NRC\OE
Mitzi Young	NRC\OGC
Geary Mizuno	NRC\OGC
Joseph Birmingham	NRC\NRR\RPRP
Deann Raleigh	LIS, Scientech