

June 8, 2012

MEMORANDUM TO: David W. Alley, Acting Chief
Piping and NDE Branch
Division of Engineering
Office of Nuclear Reactor Regulation

FROM: John C. Tsao, Senior Materials Engineer */RA by David Alley for/*
Piping and NDE Branch
Division of Engineering
Office of Nuclear Reactor Regulation

SUBJECT: SUMMARY OF PUBLIC MEETING WITH THE INDUSTRY
REPRESENTATIVES REGARDING RECENT OPERATING
EXPERIENCE WITH ULTRASONIC INSPECTIONS OF DISSIMILAR
METAL BUTT WELDS

On May 30, 2012, the U.S. Nuclear Regulatory Commission (NRC) staff held a public meeting with industry representatives at the NRC Headquarters in Rockville Maryland to discuss recent operating experience regarding ultrasonic testing (UT) of a nickel-based Alloy 82/182 dissimilar metal weld at a domestic nuclear power plant. In March 2012, a licensee was not able to detect five significant flaws in the dissimilar metal weld joining the hot leg and the steam generator nozzle even though the licensee used the UT that was qualified in accordance with the American Society of Mechanical Engineers Boiler and Pressure Vessel Code (ASME Code), Section XI, Appendix VIII, *Performance Demonstration for Ultrasonic Examination Systems*.

As a result of the operating experience, the NRC raised the following concerns regarding: (1) the reliability of the UT probe design, (2) the qualification of the probe and associated mock-ups, (3) the potential use of unqualified probe, (4) the potential deficiency in the UT qualification using mock-ups per Performance Demonstration Initiative program, and (5) UT records.

The industry stated that it recognized the significance of the recent operating experience that raised the NRC's concern regarding the reliability of UT examination. To resolve the reliability of the UT examination, the industry presented the organizational framework that includes executive teams providing oversight and technical groups performing studies. The industry discussed its action plans including establishing the NDE Implementation Focus Group (NIFG) to resolve the UT examination reliability issue. The industry stated that NIFG will use the 2012 operating experience data as a starting point to begin its evaluation, but will not limit its efforts to this specific operating experience event. The initial study will focus on reliability issues relating directly to the manual UT examinations of dissimilar metal welds and lessons learned will be expanded to other nondestructive examination applicability.

The industry will evaluate technical and administrative improvements to processes associated with UT examinations of dissimilar metal welds. The industry will provide guidance to utilities and vendors as a part of the initiatives toward resolving the UT reliability issue. In the meeting, the industry also presented its responses and specific action plans to address the above NRC's five concerns.

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The NRC and the industry representatives agreed to meet periodically to assess progress toward the resolution of this issue. The list of participants is in Enclosures 1. The meeting agenda and presentation slides are included in Enclosures 2 and 3, respectively.

CONTACT: John Tsao, NRR/DE
301-415-2702

Enclosures:

1. Participants List
2. Meeting Agenda
3. Presentations

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Enclosures:

4. Participants List
5. Meeting Agenda
6. Presentations

DISTRIBUTION:

DE R/F	RidsNrrDci	EPNB	WNorris	RHardies	ACsontos
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ADAMS Accession Numbers: Package: ML12160A582

Meeting Summary: ML12160A593

Meeting Notice: ML12135A230

Agenda: ML12153A366

Slides: ML12153A386

OFFICE	NRR/DE/EPNB	NRR/DE/EPNB
NAME	JTsao	DAlley
DATE	06/08/2012	06/08/2012

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MAY 30, 2012

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Howard Rathbun	NRC
Aladar Csontos	NRC
Bruce Lin	NRC
John Tsao	NRC
Alexander Butcavage	NRC
Ali Rezai	NRC

AGENDA
FOR THE NRC/INDUSTRY PUBLIC MEETING
AT NRC HEADQUARTERS
11555 ROCKVILLE PIKE,
ROCKVILLE, MD
MAY 30, 2012

Wednesday, May 30, 2012, 1:00 p.m. – 4:00 p.m.

1:00 – 1:15	NRC Introduction
1:15 – 1:25	Utility Executive Perspective; Joe Donahue
1:25 – 2:05	Industry Response to DM NDE OE; Mark Huting
2:05 – 2:15	EPRI Engagement; Greg Selby
2:15 – 2:30	Break
2:30 – 3:15	NRC pre-submitted question discussion; Carl Latiolais
3:15 – 3:20	Utility Executive closure remarks; Joe Donahue
3:20 – 3:35	Public Comments
3:35 – 3:45	Action item discussion
3:45 – 4:00	Conclusions NRC/Industry

HANDOUT AND PRESENTATIONS
FOR MAY 30, 2012, NRC/INDUSTRY PUBLIC MEETING

(ADAMS Accession Number ML12153A339)

- NDE reliability issues Industry perspective and action plan
- Meeting Agenda

ENCLOSURE 3