

August 24, 2011

MEMORANDUM TO: Aladar A. Csontos, Chief
Component Integrity Branch
Division of Engineering
Office of Nuclear Regulatory Research

FROM: Gary L. Stevens, Senior Materials Engineer */RA/*
Component Integrity Branch
Division of Engineering
Office of Nuclear Regulatory Research

SUBJECT: PUBLIC MEETING – DISCUSSION OF NONDESTRUCTIVE
EXAMINATION ASPECTS OF REACTOR PRESSURE VESSEL
INTEGRITY ISSUES FOR OPERATING NUCLEAR POWER PLANTS

DATE & TIME: September 15, 2011
9:00 AM – 4:00 PM

LOCATION: U.S. Nuclear Regulatory Commission
One White Flint North, 1st Floor, Room O1F16/O1G16
Commissioners' Conference Room (also called "Hearing Room")
11555 Rockville Pike
Rockville, MD 20852-2738

PURPOSE: The NRC staff is performing additional research on reactor pressure vessel (RPV) integrity issues, and is soliciting relevant input from interested parties on the nondestructive examination (NDE) aspects of this subject. The purpose of this meeting is to have technical discussions related to NDE for potential application to the evaluation of irradiation effects on RPV ferritic materials for operating plants.

Safe operation of a nuclear power plant requires maintaining the structural integrity of the RPV during both routine operations (i.e., heatup, cooldown, and leak test) and during postulated accident scenarios (e.g., pressurized thermal shock (PTS)). Assessments of structural integrity require estimates of the fracture toughness of the RPV materials, including the adverse effects of neutron radiation, and comparison of this toughness with the driving force created by the stresses imposed on the RPV. The regulatory and guidance documents that ensure RPV structural integrity that will be discussed in this meeting are Title 10 of the Code of Federal Regulations (10 CFR) Part 50.61a, "Alternate Fracture Toughness Requirements for Protection against Pressurized Thermal Shock Events" and a planned revision to 10 CFR 50 Appendix G, "Fracture Toughness Requirements."

MEETING CONTACT: Gary L. Stevens, RES/DE/CIB
301-251-7569
gary.stevens@nrc.gov

TELECONFERENCE: Please contact the NRC staff member listed above for teleconference information.

CATEGORY 2: This is a Category 2 Public Meeting. The NRC will obtain feedback from interested technical parties on NDE for potential application to the evaluation of RPV structural integrity, with particular focus on 10 CFR 50.61a and 10 CFR 50, Appendix G. There will be no licensee-specific discussions of regulatory issues. The public is invited to discuss relevant issues with the staff at a designated point on the agenda.

PARTICIPANTS: Scheduled participants from the NRC include personnel from the Office of Nuclear Reactor Regulation (NRR), Office of New Reactors (NRO), and the Office of Nuclear Regulatory Research (RES).

NRC

Aladar A. Csontos (RES)	Matthew A. Mitchell (NRR)
Gary L. Stevens (RES)	Allen L. Hiser (NRR)
Mark T. Kirk (RES)	Robert O. Hardies (NRR)
Robert L. Tregoning (RES)	Carolyn Fairbanks (NRR)
Stephen Dinsmore (NRR)	Neil K. Ray (NRO)

Industry and Public

Various representatives of the industry from EPRI, vendors, and utilities are expected to attend.

Enclosure: Meeting Agenda

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DISTRIBUTION:

A. Hiser, NRR	M. Galloway, NRR	B. Holian, NRR
A. McMurtray, NRR	M. Evans, NRR	J. Lubinski, NRR
M. Mitchell, NRR	C. Fairbanks, NRR	R. Hardies, NRR
S. Dinsmore, NRR	S. Richards, RES	M. Case, RES
R. Tregoning, RES	M. Kirk, RES	N. Ray, NRO
D. Terao, NRO	J. Dixon-Herrity, NRO	T. Bergman, NRO

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OFFICE	RES/DE/CIB	RES/DE/CIB
NAME	G. Stevens	A. Csontos / D. Rudland for
DATE	8/24/2011	8/24/2011

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DRAFT AGENDA

DISCUSSION OF NONDESTRUCTIVE EXAMINATION ASPECTS OF REACTOR PRESSURE VESSEL INTEGRITY ISSUES FOR OPERATING NUCLEAR POWER PLANTS

Thursday, September 15, 2011
9:00 a.m. – 4:00 p.m.

Location:

One White Flint North, 1st Floor, Room O1F16/O1G16
Commissioners' Conference Room (also called "Hearing Room")
11555 Rockville Pike
Rockville, MD 20852-2738

Purpose of Meeting:

The purpose of this meeting is to have technical discussions related to nondestructive examination (NDE) that might be performed and applied to evaluation of irradiation effects on RPV ferritic materials for operating plants, with particular focus on 10 CFR 50.61a and 10 CFR 50 Appendix G evaluations.

Agenda:

Time	Topic*	Organization	Coordinator or Presenter
9:00	Welcome and Introduction	NRC	Stevens
9:05	Brief Summary of NRC Research Activities on 10 CFR 50.61a and 10 CFR 50 Appendix G	NRC	Stevens
9:15	Clarification on the NDE aspects of 10 CFR 50.61a and 10 CFR 50 Appendix G	NRC	Mitchell
10:15	BREAK		
10:30	Clarification on NDE re-analysis and reporting needs associated with 10 CFR 50.61a and 10 CFR 50 Appendix G	Pacific Northwest Nuclear Laboratory (PNNL)	Anderson
11:30	Discussion	All	Stevens
12:00	BREAK FOR LUNCH		
1:30	Industry Presentations	TBD	TBD
2:45	BREAK		
3:00	Industry Presentations (cont'd)	TBD	TBD
3:30	Public Comments	All	Stevens
3:45	Summary and Review of Action Items	All	Stevens
4:00	ADJOURN		

* Interested parties should pre-arrange relevant technical presentations by contacting the designated NRC meeting contact.