

March 9, 2000

MEMORANDUM TO: Edwin M Hackett, Acting Chief  
Materials Engineering Branch  
Division of Engineering Technology  
Office of Nuclear Regulatory Research

FROM: Wallace E. Norris  
Materials Engineering Branch  
Division of Engineering Technology  
Office of Nuclear Regulatory Research

SUBJECT: TRIP REPORT FROM THE MEETING OF ASME SECTION XI  
SUBCOMMITTEE ON INSERVICE INSPECTION (SC XI) ON  
MARCH 2, 2000

The referenced meeting was held at the Adams Mark Hotel and Convention Center, Daytona Beach, FL, on March 2, 2000. Reports on the items considered the most significant are contained in the attachments to this memorandum. Information on all SC XI items is available in the writer's file.

Attachments: As stated

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COMMITTEE: ASME SECTION XI SUBCOMMITTEE ON INSERVICE INSPECTION  
(SC XI)

DATE OF MEETING: March 2, 2000

NRC MEMBER: GILBERT MILLMAN

MEETING ATTENDED BY: WALLACE NORRIS

## I. ADMINISTRATIVE

A. The next Section XI meetings are scheduled for the week of May 15, 2000, in Toronto, Ontario. SC XI will meet on Thursday, May 18, at 8:30 a.m.

### B. IR-7.0 NRC UPDATE

The following items were reported to SC (see Attachment 1):

- (1) Availability of February 8, 2000, ACRS recommendation to the Commission that the 120-month interval update requirement be retained.
- (2) Office review of draft Regulatory Guides 1.84, 1.147, and the new OM Code Case guide is nearly complete.
- (3) The NRC Standards Program Website is available.
- (4) Michael E. Mayfield has been appointed NRC Standards Executive.
- (5) NRC staff guidance on risk-informed activities is available on the NRC homepage. The Commission approved the staff's plan to risk-inform 10 CFR Part 50.
- (6) The 12<sup>th</sup> Annual Regulatory Information Conference is scheduled for March 27-29, 2000, at the Capitol Hilton in Washington, DC.

## II. TECHNICAL ITEMS

### A. IR-9.0, Code Cases: Code Case N-416-2, "Alternative Pressure Test Requirement for Welded Repairs or Installations of Replacement Items by Welding, Class 1, 2, and 3"

The Code Case was revised to include brazing, which will be published as Code Case N-416-2. The item passed unanimously. Note: the staff placed a condition in R.G. 1.147 on Code Case N-416-1 with regard to welded repairs. The condition will have to be modified to address brazing.

### B. IR-5.3, SC XI ISI Items with Outstanding BNCS Negatives: ISI 98-12b, WGGR 97-04,

### Revision of IWA-1000, Scope and Responsibility

Gil Millman had a previous negative on Code Case N-618; i.e., this is outside the scope of Section XI (BPV 98-272, ISI 97-50, Code Case N-618, Use of Reactor Vessel as a Transportation Containment System). This change to the scope, however, is much broader addressing decommissioning, and storage containers (in addition to the reactor vessel). The rationale is that Section XI must inspect anything built by Section III. Section XI has not yet received direction from the Board to make all of these changes, and it was not clear based on previous discussions that they would. There were 4 negatives (Holston, Bamford, Kulat, Norris).

### C. Agenda Item 14: ISI 97-17, RRM 96-13., Code Case N-600, Sharing of Welder Performance Qualifications

This item previously received 14 negatives at the Main Committee (MC 97-433). Gil Millman's negative was that there is no requirement for the end user to confirm, as required by Appendix B, that the qualification and certification activities were performed in accordance with a QA Program that met the requirements of IWA-1400 and was effectively implemented at the time these activities were performed. The sponsor of the Code Case elected not to address this comment on the basis that Appendix B has to be followed regardless of what the Code Case states. There have been instances in the past, however, where licensees followed a Code Case in the belief that the Code Case provisions provided a fully acceptable alternative. I voted negatively, and there was 1 abstention. The item passed.

- Draft Final Amendment to 10 CFR 50.55a

- (1) September 22, 1999: Final rule published incorporating by reference the 1995 Edition with the 1996 Addenda.
- (2) December 1, 1999: Advisory Committee on Reactor Safeguards (ACRS) subcommittee hearing on proposal to eliminate the 120-month update.
- (3) December 2, 1999: ACRS full committee hearing on proposal to eliminate the 120-month update.
- (4) December 8, 1999: ACRS recommends that Commission retain 120-month update.

The ACRS's recommendation to the Commission: "We recommend that the Commission adopt Option 2 proposed by the staff and retain the 120-month update requirement for ISI and IST programs in 10 CFR 50.55a." In its letter, the ACRS stated, "...because assurance of the integrity of the reactor coolant pressure boundary and the containment is one of the cornerstones of the NRC regulatory system, ISI and IST programs have been required to provide additional assurance, through application of the defense-in-depth philosophy, of the integrity of these barriers and to compensate for uncertainties."

- (5) January 14, 2000: Staff submits SECY-00-0011 to Commission recommending that the 120-month update provision in § 50.55a be replaced with a baseline consisting of the 1995 Edition with the 1996 Addenda as currently incorporated into the regulations.
- (6) March 24, 2000 (tentative): Commission Briefing scheduled to discuss issues relative to elimination of the 120-month interval update.

- Revision to Regulatory Guides 1.84, 1.147, and Draft OM Guide

NRC review of final draft of proposed guides is scheduled to be completed by mid-March 2000. The briefing is anticipated for late April 2000. Based on a review of the latest procedural requirements, NRC legal staff have determined that Footnote 6 to 10 CFR 50.55a must contain the latest regulatory guide revision which has been approved for use by the NRC. This means that the guides must be accompanied by a rule which, in this case, modifies the footnote indicating the latest guides will be Revision 32 for RG 1.84, Revision 13 for RG 1.147, and Revision 0 for the OM regulatory guide. The rule has been drafted and will be transmitted to OMB for review and approval shortly. The guides are expected to be published in the Federal Register for public comment in late May 2000. The Committee to Review Generic Requirements (CRGR) has requested that the staff provide a briefing on the "new regulatory guide process."

Staff review of Supplements 4, 5, and 6, 1998 Edition, has begun. These supplements will comprise Revision 33 to Regulatory Guide 1.84 and Revision 14 to Regulatory Guide 1.147.

- NRC Standards Program Website

The NRC Standards Program website is available. This website supports NRC's strategy to increase involvement by licensees and others in its regulatory development process consistent with the National Technology and Transfer Act of 1995. The NRC strategy encourages industry to develop codes, standards and guides that NRC can endorse and industry can carry out. Compiled on this website is information on NRC's participation in the development and use of consensus standards. Our goal is for this information to broaden understanding of the NRC Standards Program and for this site to simplify access to other related information.

Seven information categories are available: Program Review, Reference Documents, Standards Developing Organizations (SDOs), Representatives on SDO Committees, Consensus Standards Used by NRC, Consensus Standards Being Reviewed For Use, and Feedback (comments on the website are encouraged).

The website address is:

<http://nrcweb.nrc.gov/NRC/REFERENCE/STANDARDS/index.html>

- New NRC Standards Executive

Mr. John Craig has been assigned to the Office of the Executive Director for Operations. Mr. Michael E. Mayfield, Acting Director, Division of Engineering Technology, Office of Nuclear Regulatory Research, has been appointed by Chairman Richard A. Meserve to replace Mr. Craig as the NRC Standards Executive.

#### Risk-Informed Activities

The staff is still giving high priority to risk-informed activities, including IST, ISI, QA, technical specifications (TSs), and risk-informing 10 CFR Part 50. The NRC staff's guidance on risk-informed activities are available on the NRC homepage.

#### *Risk-Informed Inservice Inspection*

The NRC staff has completed its review of the EPRI risk-informed ISI Topical Report which was submitted by the Electric Power Research Institute (EPRI) by letter dated July 29, 1999. On October 28, 1999, the staff issued the safety evaluation (SE) which discusses the adequacy of the EPRI methodology for developing a risk-informed inservice inspection program, and indicates its applicability and implementation at individual plants. The staff has found that this topical report is acceptable for referencing in licensing applications to the extent specified and under the limitations delineated in the report and the associated NRC safety evaluation. Licensees who follow the approved methodology and the template developed jointly by the staff and the industry can send an abbreviated submittal and expect an expedited staff review.

On February 11, 2000, the staff authorized an alternative to ASME Section XI Code requirements for the Browns Ferry Nuclear Plant Unit 3. This relief authorized the licensee to implement a RI-ISI program for piping beginning with an outage scheduled to start on April 16, 2000. The alternative applies to Class 1, 2 and 3 piping systems and decreases the number of weld inspections by approximately 55% over the 10-year inspection interval. Browns Ferry 3 is the second BWR to receive authorization for use of RI-ISI. The previously authorized RI-ISI program for Vermont Yankee applied only to Class I piping. The staff has received the James FitzPatrick, South Texas, and Turkey Point RI-ISI submittals and is expecting 2-4 additional submittals in the next 2-3 months.

#### *Risk-informing 10 CFR Part 50*

The Commission recently approved the staff's plan to risk-inform the scope of 10 CFR Part 50 regulations for the

reactor program. A January 31, 2000, Staff Requirements Memorandum (SRM) provided Commission direction regarding the staff proposal for a rulemaking plan for risk-informing special treatment requirements (described in SECY 99-256, dated October 29, 1999). The alternative special treatment requirements would vary the treatment applied to structures, systems, and components on the basis of their safety significance using a risk-informed categorization method. Current special treatment requirements are deterministic based and go beyond industry-established requirements to provide additional confidence that equipment is capable of meeting its functional requirements (e.g., equipment qualification).

In March, the staff will issue an Advance Notice of Proposed Rulemaking that seeks public comment on the direction, scope, and the effects of risk-informing the reactor regulatory program. The Commission believes that this effort will enhance public safety by allowing licensees and the NRC to focus resources on the most significant safety issues. By focusing on the most risk significant safety issues, this rulemaking will inherently provide a voluntary means to reduce regulatory burden and to improve efficiency and effectiveness. An alternative regulatory infrastructure will permit licensees to reduce special treatment requirements for those structures, systems, and components that do not contribute appreciably to safety. The Commission intends to solicit stakeholder input, interactions, and discussion throughout the rulemaking process.

A meeting with industry and stakeholders was held on February 23, 2000, to continue the technical dialogue on special treatment requirements. A meeting with industry and stakeholders was held on February 24, 2000, to discuss changes to the body of the Part 50 regulations to incorporate risk-informed attributes.

#### Regulatory Information Conference

The 12th Annual Regulatory Information Conference is scheduled for March 27, 28, and 29, 2000, at the Capitol Hilton Hotel in Washington D.C. Complete information about the conference can be found on the external RIC 2000 web site at:

COMMITTEE NUMBERS	ITEM IDENTIFIER	SUMMARY	SG/WCS VOTE	NORRIS VOTE
ISI 99-08, RRM 93-05	IWA-4713	Heat Exchanger Tube Plugging by Expansion. SG RRM made editorial changes to address negatives. Item passed SC unanimously.	Y	Y
ISI 99-28, RRM 99-10	Code Case N-416-1	“Alternative Pressure Test Requirements for Welded Repairs or Installation of Replacement Items by Welding, Class 1, 2, and 3”: There were 3 negatives at the Main Committee on this change to the Code Case (there are two separate changes). This change would permit a leakage test instead of a hydrostatic test for subassemblies assembled by a manufacturer. The basis for this change is that the hydro is not performed at high enough pressure to reduce stress concentrations by causing local plastic strain. Therefore, a hydro is not meaningful, and a system leakage test at system pressure to test for leaks is all that should be required. In addition, the Code does not require a hydro of the field welds (the welds which connect the subassembly to the rest of the system. This items pass with 5 abstentions.	Y	Y
ISI 99-38, RRM 99-19, BC 00-13	Intent Inquiry IN 99-028	Code Case N-416-1 is being changed to include brazing. The intent inquiry states that this has been the intent of the Code since 1988. Gil Millman had a previous negative on the intent inquiry. I voted negatively. The item passed.	N	Y
ISI 99-38, RRM 99-19	Code Case N-416-1	A separate vote was taken on the technical merits of adding brazing to Code Case N-416-1. I voted affirmatively.	Y	Y
ISI 94-07, BCS 98-376	Code Case N-622	Changes had been proposed to Code Case N-622, “Ultrasonic Examination of RPV and Piping, Bolts, and Studs.” Gil Millman had previously voted negatively at the Main Committee. There was a motion to rescind and drop this item. It passed with on abstention.	Y	Y
ISI 98-12b, WGGR 97-04	IWA-1000, Scope and Responsibility	Expansion of scope to include decommissioning and and storage containers (in addition to the reactor vessel). I voted negatively (3 other negatives). [See II, Technical Items, Item B above].	N	Y



COMMITTEE NUMBERS	ITEM IDENTIFIER	SUMMARY	SG/WCS VOTE	NORRIS VOTE
ISI 97-17, RRM 96-13	Code Case N-600	Code Case N-600, Sharing of Welder Performance Qualifications. The Code Case would not satisfy Appendix B. [See II, Technical Items, C, above].	N	Y
ISI 97-28	IWA-2443	Delete paragraph IWA-2443, Code Cases for Other Sections. Passed unanimously.	Y	Y
ISI 99-36	IWA-2220, IWA-2230	The Figures in IWX-2500-X show the scan area on the outside surface. However, most all RPV examinations are scanned on the outside surface. The Code permits volumetric examinations to be conducted from either the inside or outside, but the figures have resulted in confusion and extra work resulting in additional radiation exposure. The affected paragraphs were clarified and a footnote was deleted. There was 1 abstention.	Y	Y
ISI 00-01, SGWCS 97-26, WGISC 197-26	Proposed Code Case	"Alternative Requirements to B-G-1, B-G-2, and C-D Bolting Examination Methods and Selection Criteria;" This action item clarifies some provisions which have caused confusion for users, incorporates previous separate action which deleted surface examination on reactor studs (2000 Addenda), permits performance of volumetric examinations in place, and increases inspections in a few limited areas. There was 1 negative and 5 abstentions.	Y	Y
ISI 98-22, SGWCS 98-04	IWC/IWD-1220	"Components Exempt from Examination;" Item clarifies that a heat exchanger contained in piping which is exempt from examination is also exempt.	Y	Y