

ASME Section XI Code Meeting February 2006

The ASME Boiler and Pressure Vessel Committee meetings were held in Portland, Oregon during the week of February 13th. These meetings are held quarterly and included all committees representing the different sections of the ASME Boiler and Pressure Vessel Codes.

Highlights of the above meeting are summarized below:

Report Presented by the NRC

Amendment to 10 CFR 50.55a

- The technical bases for the amendment to 10 CFR 50.55a to endorse the 2004 Edition has been completed and, the development of the proposed rule is proceeding.
- A public meeting is tentatively scheduled during the next ASME meetings to discuss the proposed changes to 10 CFR 50.55a to incorporate by reference the 2004 Edition. The purpose of this public meeting is to present the NRC's basis for any new limitations and modifications that are being considered for 10 CFR 50.55a and solicit comments.
- Publishing the proposed rule for public comment is currently scheduled for summer 2006.

Regulatory Guides (RG)

- The draft revisions to RG 1.84 (Section III Code Cases), RG 1.147 (Section XI Code Cases), and RG 1.193 (ASME Code Cases not approved for use) have been reviewed and approved for publication (public comment). The proposed rule endorsing the draft regulatory guides is in concurrence.
- These guides address the Code Cases in Supplement 7 to the 2001 Edition through Supplement 1 to the 2004 Edition.
- The current plan is to publish these guides for public comment in the first quarter of 2006.
- The staff is currently reviewing Supplements 2, 3, 4, 5, and 6 to the 2004 Edition.

Request to Extend Reactor Vessel Weld Inspection Interval by One Operating Cycle

- Three licensees have submitted requests to extend the inspection interval for the reactor vessel welds by one operating cycle.
- The requests referred to NRC guidance provided in a letter from the Nuclear Regulatory Commission to Westinghouse Electric Company, "Summary of Teleconference with the Westinghouse Owners Group Regarding Potential One Cycle Relief of Reactor Pressure Vessel Shell Weld Inspections at Pressurized Water Reactors Related to WCAP-16168-NP, "Risk Informed Extension of Reactor Vessel In-Service Inspection Intervals," dated January 27, 2005.
- Palisades request has been approved and issued.

ASME Section XI Code Meeting

February 2006

New Reactor Licensing Activities

- The NRC is currently engaged in certification review of General Electric's ESBWR design.
- The design certification application was submitted to the NRC in August 2005, and once accepted for docketing, the certification review is expected to take 48 months.
- In addition, the NRC is currently engaged with vendors in pre-application review of several other new and innovative reactor designs, including the EPR design (Framatome ANP), the Pebble-Bed Modular Reactor (PBMR) design (PBMR Pty Ltd.), the Advanced Candu Reactor (ACR)-700 design (Atomic Energy of Canada, Ltd.), and the International Reactor Innovative and Secure (IRIS) design (Westinghouse Electric Company).

Code Actions of Interest

1. The Section XI Executive committee approved the Task Group – Alloy 600 action to begin work on a Code Case for increased examination of dissimilar metal Alloy 600 butt welds.
2. The Section III liaison report identified that Code Case N-659 (Use of UT in lieu of RT for weld examination) is being revised. The proposed action is removing the ½” or greater thickness limitation.
3. A report was given that the Boiling Water Reactor and Internals Project (BWRVIP) was still working with the NRC to resolve questions pertaining to report BWRVIP-108. This document is the technical bases for Code Case N-708, which reduces BWR nozzle-to-shell weld and nozzle inner radii exams from 100% to 25% sample.
4. Code Case N-666, Weld Overlay of Repair of Defects in Socket Welds, was approved for second consideration by the Standards Committee. This Code Case allows weld reinforcement for defective socket welds. Approval by the Standard Committee has been obtained.
5. Code Case N-705, Evaluation criteria for temporary acceptance of degradation in moderate energy Class 2 and 2 vessel and tanks was approved for Standards Committee ballot. This Code Case will provide evaluation rules and criteria for temporary acceptable of degradation, including through-wall degradation.
6. Code Case N-470, Dissimilar Metal Weld Overlay of Class 1, 2, and 3 Components, was approved for Standards Committee ballot. This Case extends the use of overlays to dissimilar metal welds by providing requirements for applying dissimilar weld overlays on ferritic, austenitic stainless steel, and nickel base alloy materials and components.
7. Code Case N-532-3, Alternative Requirements to Repair/Replacement Activity Documentation Requirements and Inservice Summary Report Preparation and Submission, was approved for second consideration by the Standards Committee.

ASME Section XI Code Meeting February 2006

This revision to the Code Case added (1) a requirement to prepare, certify, and submit the OAR-1 report within 90 days upon completion of a refueling outage; (2) elimination of the burden of providing an abstract of completed examination and tests; (3) revised Forms NIS-2A and OAR-1 to reduce the time required to complete them; and (4) removed the requirement to report conditions necessitated by a corrective measure. Approval by the Standard Committee has been obtained.

8. Code Case N-716, Alternative Piping Classification and Examination Requirements Based Upon Risk-Informed and Safety-Based Insights, was approved for second consideration by the Standards Committee. This Code Case provides alternative requirements to IWB, IWC, and IWD for piping examination using risk insights. Approval by the Standard Committee has been obtained.
9. Code Case N-751, Use of Appendix J for Repair/Replacement Activity, was approved for Standards Committee ballot. However, the Project Manager was requested to hold the action to the next meeting to resolve the five negative received. This Code Case would allow the use of Appendix J testing in lieu of the rules of Category C-H for piping classified as Class 2 only because it is connection to the containment vessel.
10. Code Case N-739, Alternative Qualification Requirements for Personnel Performing Concrete and Post-tensioning System Examination, was approved for Standards Committee ballot. This Code Case will provide qualification requirements for examiners and was written to address modifications imposed by 10CFR50.55a(b)(2)(viii)(F) & (G). Revision to IWL-2100, IWL-2310, IWL-2320, and IWL-4110, and the addition of IWL-2330 is also included in this action.
11. No action was taken on Code Case N-734, Examination Requirements for Portions of Class 1 and 2 Systems and Components Within the Containment System Boundary. This action addresses whether Section XI requirements apply to portions of Class 1 and 2 items (e.g., flued heads, pipe caps) that are part of the containment system, but which do not perform a Class 1 or 2 system pressure retaining function. Proposed Code change is also included in this action.
12. Revision to Appendix VIII, Supplement 4 and 6 (BC05-44), was approved for Standards Committee ballot. This proposed Code action will (1) redefine flaw depth distributions in Supplement 4 and 6 from “uniform” to “representative”; (2) align Supplement 4 and 10CFR50.55a for minimum flaw size requirements; and (3) align Supplement 4 and 10CFR50.55a for off-axis flaw requirements.
13. Code Case N-735, Alternative Successive Inspection Requirements for Class 1 and 2 Piping Components other than Class 1 and 2 Vessels and Supports, was approved for Standards Committee ballot. This Code Case eliminates the successive examination provided the flaws are non-threatening in nature (such as embedded flaws originating from material manufacturing or piping fabrication,

ASME Section XI Code Meeting
February 2006

which experience negligible or no growth during the design life of the component) and meet a more restrictive distance from piping surfaces.

14. Code Case N-753 and the "new" IWA-2321(b) for vision acuity examination were approved for Standards Committee ballot. This action will allow the use of optometrist, ophthalmologist, or other health care professionals to administer the vision acuity examinations independent of other requirements.
15. A revision to Appendix I, Supplement 9 was approved for Standards Committee ballot. This action will allow clarify that 45 and 60 degree search units are also required for examinations conducted from the outside and inside surfaces of unclad components.
16. A revision to Appendix VIII, 3120(b) was approved for Standards Committee ballot. This action will clarify qualification requirements for detection and sizing of axial flaws in those piping Supplements that otherwise contain no provisions.
17. A revision to Appendix I, I-2400 (qualification requirements for ultrasonic examination of thread in flange) was approved for Standards Committee ballot. This action will allow the use of Section V, or Section XI, Appendix VIII for ultrasonic examination of threads in flange (Item No. B6.40).
18. Code Case N-730, Roll-Expansion of Class 1 Control Rod Drive Bottom Head Penetration in BWRs, was approved for Standards Committee ballot. This Code Case defines the technical and administrative requirements for use of the mechanical roll expansion process for sealing of BWR bottom head penetrations. The process qualification, essential variables, process application, and examination requirements for application are also defined.

The following inquiries were reviewed and approved at the Interpretation Session:

Subject: Section XI, Appendix I, Supplement 9

Applicability: 1995 Edition with 1996 Addenda through 2005 Addenda

Date Issued: TBD

File: TBD

Question: Is it ^{a requirement} the intent of ~~Section XI~~, Appendix I, Supplement 9, that two angle beams having nominal angles of 45 deg and 60 deg ~~are required~~ when conducting vessel examinations from the outside diameter or from the inside diameter on ~~unclad~~ ^{unclad} surfaces? shall be used

Proposed reply:

Yes

ASME Section XI Code Meeting
February 2006

Inquiry:

Is it a requirement of IWA-~~4400~~⁴⁴⁴⁰(b)(6) that another performance qualification be performed after receipt of a PQR if the Owner accepting the PQR has a welder already qualified ~~for~~^{using} the parameters of the resulting WPS?

Proposed Reply:

No.

Title/Subject: Section XI Code Cases N-577, N-577-1, N-578, and N-578-1

Inquiry: Is it a requirement of N-577, N-577-1, N-578, or N-578-1 to apply the rules of IWA-4000/IWA-7000 to a non-class piping structural element determined to be High Safety Significant?

Proposed Reply: No.

Applicability: ASME Section XI 1989 Edition through 2005 Addenda (IWA-4000/7000 reference)

Question (1):

~~If an item has a Manufacturer's Data Report and has previously been installed at this site in a Section XI application then, the item is moved to a different location at the same site. Is the Manufacturer's Data Report required to be identified and attached to the Form NIS-2 covering subsequent installations of items which have previously been installed?~~ ^{it's requirement of Form NIS-2 for}

Reply (1):

~~Yes. No. Notification and documentation of this item's qualifications was satisfied the first time it was installed. Traceability can be maintained by referencing the previous location and associated work documents.~~

^{Addenda}
APPLICABILITY: ASME Section XI, Division 1, 1989 Edition up to and including the 2004 Edition with 2005 Addenda.

^{allowed} QUESTION: Does VIII-2200 ~~prohibit~~^{permit} personnel certified to Appendix VII, with reduced training and experience as ~~permitted~~^{permitted} by IWA-2350 for performing examinations of limited scope, ~~from to~~^{qualify} ~~qualifying~~ in accordance with VIII-3000, provided the Component Qualification Supplement(s) are within the limited scope of the individual's certification?

PROPOSED REPLY: ~~No.~~ ^{Yes}

ASME Section XI Code Meeting
February 2006

Applicability: ASME Section XI, 1989 Edition. (May apply to other editions and addenda but the paragraph references may change)

Proposed Question 1 permit
Does IWA-7210 (b) ~~prohibit~~ the use of ~~replacement items~~ ^{components} that have previously been in service at another location? *N or NPT stamped replacement items*

Proposed Reply 1
~~No~~ Yes

Proposed Question 2
Is it a requirement of IWA-1400 (n) that replacement parts/components must be stored under the continuous control of qualified Appendix B, QA program prior to installation?
or NQA-1

Proposed Reply 2
~~This code reference~~ does not address specific QA program requirements.
IWA-1400(n)

Proposed Question 3
Is it a requirement of IWA-2110 (h) that ANII approve the Owner's corrective action performed under Owner's Appendix B program for replacement parts/components?
or NQA-1

Proposed Reply 3
No

The following intent inquires were approved for Standards Committee ballot:

Subject: Section XI, Appendix VIII, VIII-3120(b)
Applicability: 1995 Edition with 1996 Addenda through 2005 Addenda

Date Issued: TBD

File: TBD

Question: - Is it the intent of ~~ASME Section XI~~, Appendix VIII, VIII-3120(b) to length or depth size axially oriented flaws using examination personnel, equipment, procedures, and the associated essential variables that were qualified for sizing on circumferentially oriented flaws when the applicable piping Supplement contains no provisions for a performance demonstration using axial flaws?

Proposed Reply:

Yes

ASME Section XI Code Meeting
February 2006

APPLICABILITY: ASME Section XI, Division 1, 1999 Addenda up to and including the 2004 Edition with 2005 Addenda.

QUESTION: Is ^{it the intent} ~~the Annual Practice requirement~~ of VII-4240 ~~intended~~ ^{the Annual Practice requirement} to apply to personnel certified as Level I examiners?

PROPOSED REPLY: No.

Subject: Section XI, Appendix I, I-2400
Applicability: 1996 Addenda through the 2005 Addenda

Date Issued: TBD

File: TBD

Question - Is it the intent of ~~ASME Section XI~~, Appendix I, I-2400 that ultrasonic examination of Threads in Flange (Item No. B6.40) be performed in accordance with ~~ASME Section V~~?

Proposed reply:

Yes,

Article 4, Section V is applicable for 1996 Addenda through 2001 Edition

Article 5, Section V is applicable for 2002 Addenda through 2005 Addenda

^{of cases N-638 through N-638-2}
Inquiry: Is it the intent that the surface area restriction for the temperhead weld apply only over the surface of the ferritic material.

Reply: yes