



ASME Section XI Update

**PDI/NRC Meeting
Spring 2012**

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Status of Recent Code Actions

- Code Case N-653-1
 - Reformatting of Appendix VIII, Supplement 11
 - Includes qualification for optimized overlay
 - Includes width sizing qualification provision
 - Removes NRC issue on minimum circ grading unit size
 - Goal = to eliminate the need for relief for NDE qualification requirements when installing an overlay
 - Board Approved – April
- Intent Inquiry – Appendix I, I-3000
 - Removing “all” from “. . .with **all** flaws on the opposite side of the weld”
 - Prevents all previous Supp. 10 qualifications from being voided
 - Board Approved - April

New Code Action #1 – Adding Figure I-3200

- In response to a request to clarify “opposite side of the weld” used in Article I-3200 (b) and (c), the addition of an illustration or figure was proposed.
- Initially, presented as an Intent Inquiry.
- After some discussion, the decision was made to instead present this as a Code Change.
- The proposed figure will be captioned “Figure I-3200 ...” (see next slide).

New Code Action #1 – Figure to be added

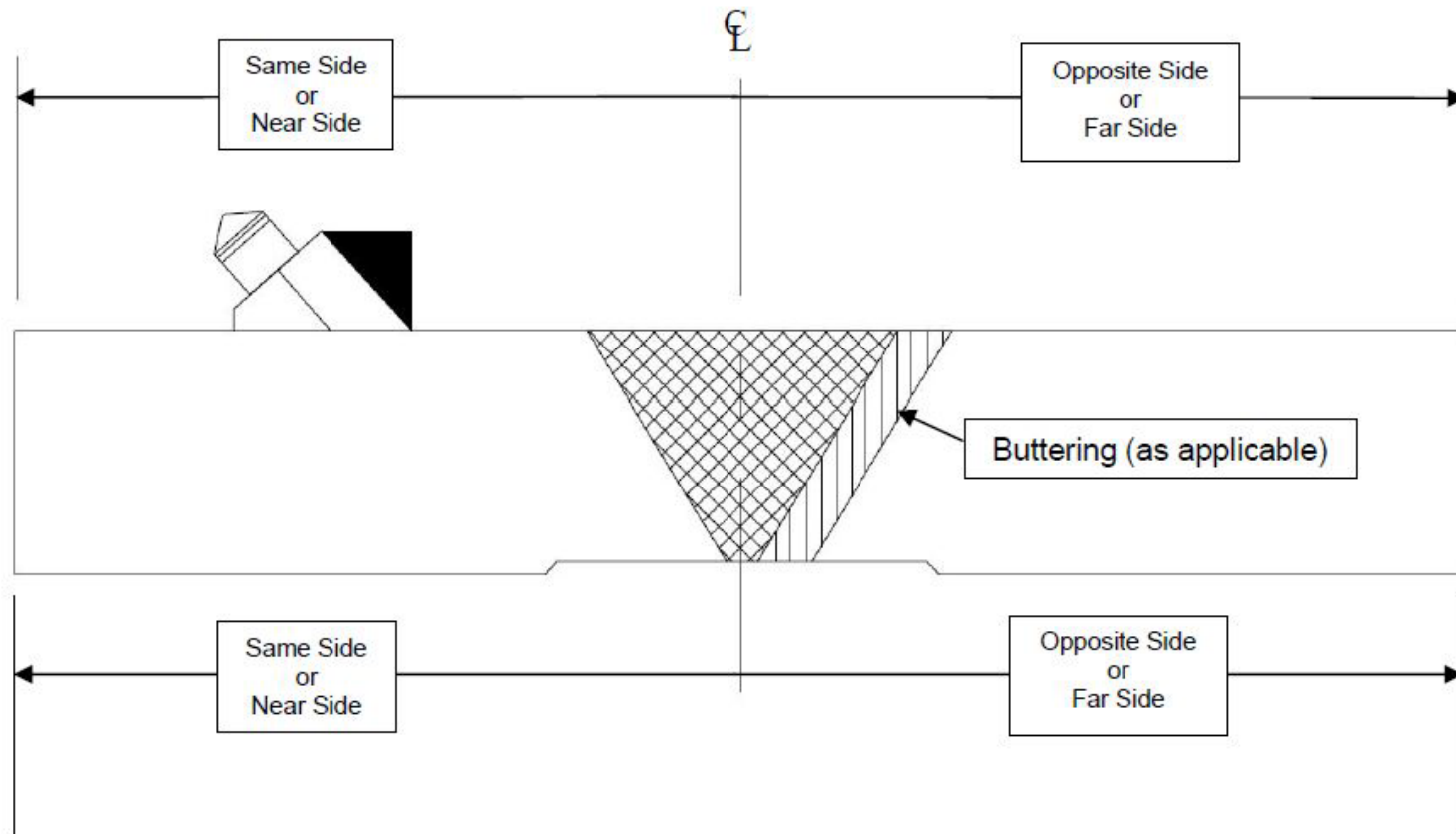


Figure I-3200 Ferritic, Austenitic or Dissimilar Metal Weld
(Sides are defined in relationship to search unit placement)

New Code Action #2 – Inquiry for VIII-3120 Sizing

- This Code section allows the use of personnel, equipment and procedures qualified for sizing **Circumferential flaws** to be used for sizing **Axial flaws**.
- This is allowed when the appropriate Supplement contains no provisions for sizing axial flaws.
- While this may be feasible in some configurations, the words personnel, equipment, procedures “***and the associated essential variables***” become a problem in many situations
 - Unique wedge contour for circ scans vs. axial scans (with unique wedge model number)
 - Steeper examination angle may be needed

New Code Action #2 – Inquiry for VIII-3120 Sizing

VIII-2100 PROCEDURE REQUIREMENTS

(a) The examination procedure shall contain a statement of scope that specifically defines the limits of procedure applicability (e.g., materials, thickness, diameter, product form).

(b) The examination procedure shall specify a single value or a range of values for the variables listed in (d).

(c) Any calibration method may be used provided it is described and complies with (d)(5).

(d) The examination procedure shall specify the following essential variables:

(1) instrument or system, including manufacturer, and model or series, of pulser, receiver, and amplifier;

(2) search units, including manufacturer, and model or series, and the following:

(-a) nominal frequency or, if Supplement 1 is used, the center frequency and either bandwidth or waveform duration as defined in VIII-4000;

(-b) mode of propagation and nominal inspection angles;

(-c) number, size, shape, and configuration of active elements and wedges or shoes;

New Code Action #2 – Inquiry for VIII-3120 Sizing

(10) VIII-3120 SIZING

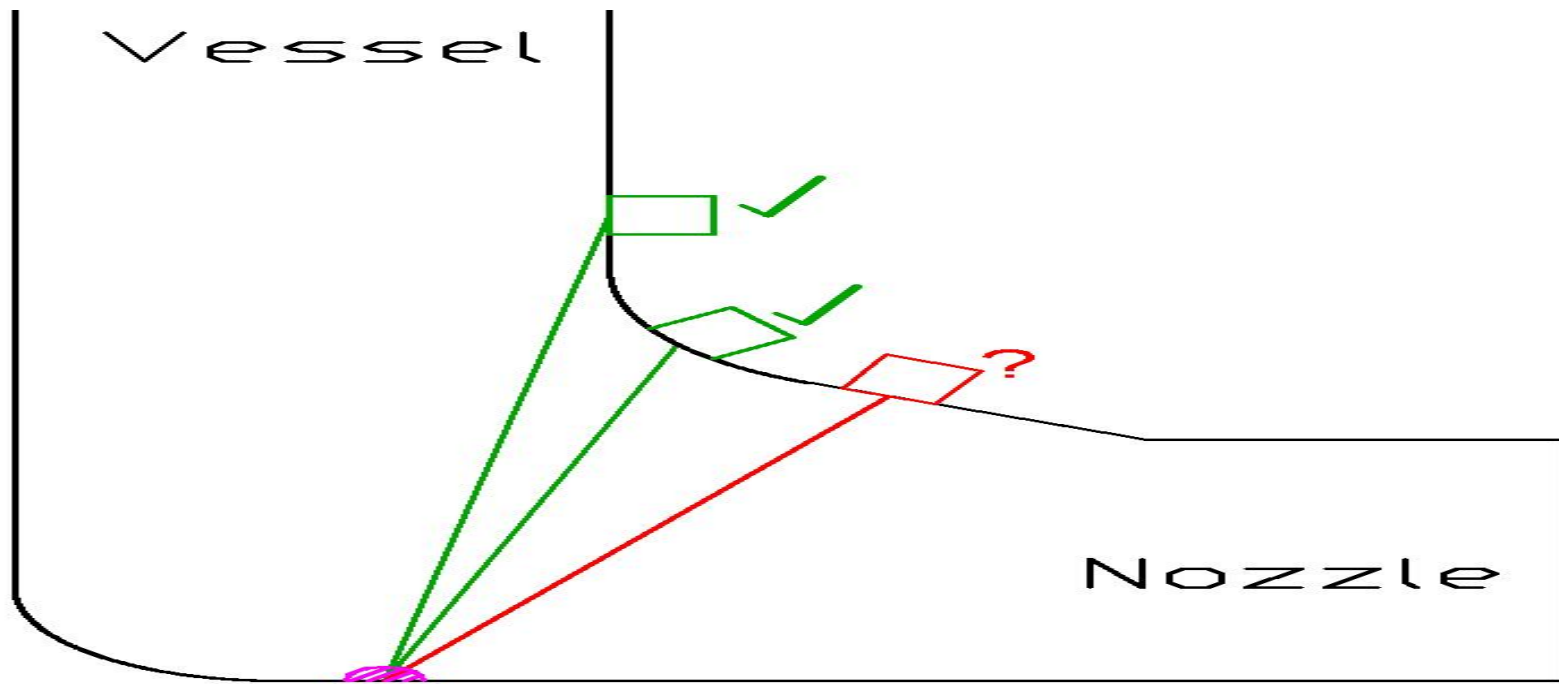
(a) Qualification test specimens shall meet the requirements of the appropriate Supplement listed in Table VIII-3110-1.

(b) The examination procedure, equipment, and personnel are qualified for sizing flaws upon successful completion of the performance demonstration specified in the appropriate Supplement listed in Table VIII-3110-1. When the applicable piping supplement contains no provisions for a performance demonstration using axially oriented flaws, examination personnel, equipment, procedures, and the associated essential variables qualified for sizing on circumferentially oriented flaws shall be used.

When the applicable piping supplement contains no provisions for a performance demonstration using axially oriented flaws, examination personnel, equipment, procedures, and the associated essential variables qualified for sizing on circumferentially oriented flaws shall be used. **Certain essential variables may be altered (e.g., examination angle, wedge contour, etc.) when necessary to perform the equivalent qualified flaw sizing techniques on axially oriented flaws.**

Pending Code Item Related to App VIII

- Intent Inquiry – Supplements 5 & 7
 - Use of computer modeling to expand qualifications to allow launching the UT beam from alternate examination surfaces
 - Second consideration at Section XI Standards Committee



Additional Items of Interest

- Code Case N-824 – Alternative App. III rules for examination of CASS
 - Provides guidance on using current best techniques
 - Ratified through SG-NDE in May
 - On agenda for Sect. XI Standards Committee – August
- Proposed Code Case N-730-1
 - Revision to Code Case on roll expansion of BWR CRDM penetrations
 - Allows use of Alloy 600 mockups when the penetration material is Alloy 600
 - Changes flaw distribution to percentages instead of hard numbers
 - Currently out for ballot at Section XI Standards Committee

Additional Items of Interest

- **Proposed Code Case N-769-1**
 - Revision to Code Case on roll expansion of BWR In-Core Housing penetrations
 - Allows use of Alloy 600 mockups when the penetration material is Alloy 600
 - Modifies flaw distribution rules to allow flexibility
 - Currently out for ballot at Section XI Standards Committee
- **NRC Report**
 - New draft revision of 10CFR50.55a is scheduled out in April 2012
 - Will incorporate up to the 2011 Addenda of Section XI
 - Will 50.55a be updated annually?
 - May require a new compliance review



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