

(Via email)

November 1, 2007

To: MRP Technical Advisory Group

Subject: MRP-139 Interim Guidance on <4" Volumetric Exam Requirements (Mandatory Element)

References

1. MRP 2004-05, "Needed Action For Visual Inspection of Alloy 600 82/182 Butt Welds and Good Practice Recommendations Weld Joint Configurations."

MRP has evaluated the population of DM butt welds in the <4" (but >1") range to determine whether all, part, or none of the population should require volumetric examination based on safety significance and other relevant factors. This review determined that DM butt welds greater than or equal to 2" NPS in the following service conditions and not already included within the volumetric examination requirements of MRP-139 should be added:

- Those at pressurizer temperatures
- Those at hot leg temperatures
- Those that serve an ECCS function

Therefore, this letter is being issued to provide guidance for inspection of these small diameter welds. The interim guidance below specifies those requirements and is mandatory per NEI-03-08 guidelines. Please note that locations meeting these criteria but exposed to pressurizer temperatures will be inspected in fall 2007 outages under individual plant commitments by 12-31-2007 and are included herein for completeness and consistency.

Most if not all of these newly included locations under this interim guidance should have been previously inspected visually in accordance with MRP-2004-05 and configuration data necessary to properly plan for volumetric inspection may have been taken. However, under this current interim guidance, these locations are exempt from the explicit configuration data collection deadline identified in MRP-139, Section 1.2. It is the utility's responsibility to ensure that timely decisions are made to support volumetric examination of these locations.

**INTERIM GUIDANCE**

**"By 12-31-2010, Alloy 82/182 butt welds that are greater than or equal to 2" NPS but less than 4" NPS, not explicitly included in implementation items 2 or 3 of MRP-139, Section 1.2, and are either exposed to temperatures equivalent to the hot leg or serve an ECCS function (e.g., B&W HPI nozzles), will be volumetrically inspected per this guideline. Specific compliance with the configuration data collection deadline in MRP-139 of 12-31-07 is waived only for these newly added locations.**

**Locations meeting these criteria but exposed to pressurizer temperatures (safety nozzles at two plants) shall be inspected by 12-31-07.”**

[This item will be added to the implementation schedule contained in Section 1.2.]

This guidance also results in the following changes to Section 6:

- *Category D (6.4.1) – replace “...greater than or equal to 4” NPS...” with “...greater than or equal to 2” NPS...”.*
- *Category E (6.5.1) – add HPI as “...greater than or equal to 4” NPS or serve an ECCS function (i.e., B&W non-Makeup HPI nozzles)...”*
- *Revise Categories J & K Basis (6.10.3 & 6.11.3) to reflect the inclusion of locations below 4” NPS in the volumetric category*
- *Revise Table 6-1, “Description of Weldments” column as follows:*
  - *Category D – replace  $\geq 4$ ” with  $\geq 2$  and MU/HPI”*
  - *Category E – expand to read “... $\geq 4$ ” or w/ ECCS function*
- *Revise Table 6-1, “Examination Extent and Schedule” column as follows:*
  - *Category D – include MU/HPI under hot leg schedule as “...(include surge line nozzle welds near hot leg and the dual use line MU/HPI nozzle weld)”*

## **DISCUSSION**

This interim guidance includes the following considerations:

- The size range limits are within the PDI procedural limits
- Those locations that are already explicitly addressed by Section 1.2 implementation statements (B&W - HPI/MU nozzle and PZR S/RV nozzle) are excluded from this added scope to prevent schedule confusion
- The CE hot leg drain nozzle is included due to elevated susceptibility driven by temperature and is reflective of the recent drain nozzle OE
- Inclusion of locations serving an ECCS function establishes the technical basis for inclusion of nozzles such as the B&W non-makeup HPI nozzle
- Explicitly includes the smaller PZR top nozzles present on two CE plants and reflects the reality that all such welds are already being addressed under specific commitments made since late 2006
- Ties implementation of the non-pressurizer population to the cold leg location implementation date which is consistent for the HPI locations and reflects the limited safety implications and low risk of an undetected leak at the HL drain
- For only these newly added locations, the deadline of 12-31-07 to collect configuration data is waived due to the issuance timing of this interim guidance; however completion of all necessary actions to support proper planning and ensure inspection compliance is still the responsibility of the utility

If you have any questions or concerns, please contact Craig Harrington ([charrington@epri.com](mailto:charrington@epri.com), 972-556-6519).

Best Regards,

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