

Materials RAI Response Clarifications

RAI-1. The applicant is proposing to use a PQR to show that even if there is a defective tack weld, the completed weld is structurally sound. A PQR is used to demonstrate a Welding Procedure Specification (WPS) used by a qualified welder results in an acceptable weld that meets the material specifications, mechanical performance requirements, and nondestructive examination (NDE) acceptance criteria. The WPS has defined ranges of operational parameters. As such, it is not clear how the weld coupons used to develop a PQR for a defective weld would bound range of possible defects. NRC staff requested clarification on the following:

1. Describe the mockup coupons including the length of the coupons, the number of tack welds, size of tack welds, and gap between the tack welds.
2. Explain basis for how the number and location of the broken tack welds in the mockup coupons are bounding of defects that could be present in the production of the transition rails
3. Explain whether the mockup coupons will include coupons with multiple, consecutive broken tack welds that could affect the fit up and alignment prior to welding.

TN's response:

1. TN to provide clarity on the size of coupons for PQR.
2. TN will describe the location of the broken tack weld within the coupon.
3. TN to provide real world example of how the components are fabricated.

RAI-2. NRC staff requested that TN describe the workflow/process for identifying and repairing defective tack welds assuming the code alternative is granted including:

1. How are defective tack welds documented?
2. How are the defective tack welds repaired?
3. Is the repair to the tack weld or is the defective tack welds repaired in the root pass?
4. Are defective tack welds reinspected after repair?
5. Is the re-inspection documented?

TN's response:

1. By the individual who signs the observation
2. Repaired as tack welds or removed by grinding
3. Not standard practice to have defective tack welds going in the root pass
4. Yes. Removed or repaired prior to the root pass.
5. Re-inspection is the same as the final inspection

No supplemental information needs to be provided by TN for RAI-2.

RAI-3. No clarifications necessary.

RAI-4. No clarifications necessary. The inclusion of NB-4123 and NB-4423 in the justification for the ASME code alternative are not relevant. TN understands and will remove the references to NB.