The Repair Welding Subcommittee was called to order at 1:00 PM on January 20, 2016 and adjourned at 4:45 PM. There was a large group of both member and non-member participants that attended the meeting. This was the third meeting for the Repair Welding Subcommittee since its formation after completion of Section 10 revisions in the 21st Edition by the disbanded Repair Welding Task Group.

The following are the significant items that were discussed and proposed subcommittee actions:

**Interpretation Requests** – The ITG responses to Section 10 interpretations were reviewed and a determination made that revisions are required for the 22nd Edition.

**2015 Discussion Items** – Seven items remaining from 2015 that required addressing were discussed with the following proposed actions:

1. A welder should not fail a qualification test due to a rejectable indication in the original weld that was not created as a part of the qualification or repair welder. It is unclear if the rejectable indication was created during repair welder qualification, then the welder shall fail the test.

   **Proposed Action - Add in Section 10.4.2 the following:**
   
   A repair welder shall not fail a qualification test due to a rejectable indication in the original weld outside or intersecting the repair area, unless the indication was to be repaired during the qualification test.

2. Is company approval required for all repair types? (Ref. to 10.2.3) Yes as written, however, blanket authorization may be provided by the company for repair of specific defect types. This response requires further review to confirm that this is the intent of the original revision. The word with may have originally been without.

   **Proposed Action – Change the word “with” to “without” in Section 10.2.3, first line to read as follows:**
   
   Defects other than cracks in the root, filler, and finish beads may be repaired without prior company authorization.
Note: This change can be an editorial errata (if shown as “without” in the original Ballot language) or included in Addendum 3 as a technical change.

3. Centerline full thickness repair does not qualify partial thickness repairs along the fusion line. Full thickness repair at centerline does not qualify a full thickness repair along the fusion line. Confirmed the essential variable is the location of repair at the fusion or centerline.

**Proposed Action – Simplification of Section 10.3.5.2 is required to remove confusion and possible unnecessary requalification of a repair procedure for change in the excavation location as an essential variable.**

4. Is the original production welding procedure an essential variable for a repair procedure? By using the words ...the production welding procedure specification... in Clause 10.3.6 in “Repair procedures shall be qualified on a test weld completed following the details of the production welding procedure specification.” Further review and draft revision with options and justification is required. Bill Amend, DNV GL will draft a proposal for committee consideration.

**Proposed Action – Confirm either Bill Amend’s or Kevin Wigren’s recommended revision is acceptable as shown below:**

**Bill Amend’s Proposed Text**

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<td>10.3.6 Welding of Test Joints Repair procedures shall be qualified on a test weld completed following the details of the production welding procedure specification.</td>
<td>10.3.6 Welding of Test Joints Repair procedures shall be qualified on a test weld completed following the details of the a qualified representative production welding procedure specification. The influence of that welding procedure specification on the test results of a repair qualification shall be considered. <strong>NOTE:</strong> The test results of a repair weld procedure qualification may not be representative of repair welds made on production welds that were made using other welding procedure specifications.</td>
<td>It could be interpreted that the use of the word “the” in 10.3.6 implies that the production welding procedure is an essential variable for repair procedure qualification, whereas production welding procedure is not listed as an essential variable in 10.3.5. The proposed revisions shown in red are necessary to rectify this confusion and require users to consider the influence of the production welding procedure on the repair procedure qualification.</td>
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Kevin Wigren’s Proposed Text

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<td>Repair procedures shall be qualified on a test weld completed following the details of the production welding procedure specification.</td>
<td>Repair procedures shall be qualified on a test weld representative of the original production weld, completed following the details of the production welding procedure specification. The influence of that welding procedure specification used to represent an original production weld shall be considered regarding the test results of the repair qualification.</td>
<td>NOTE: The test results of a repair weld procedure qualification may not be representative of repair welds made on production welds that were made using other welding procedure specifications.</td>
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5. Modify 10.1 to clarify identification during visual or nondestructive testing “of production welds.”

**Proposed Action – Revise Section 10.1 to read as:**

Weld defects may be identified during the initial visual or nondestructive testing of production welds, or during a company’s subsequent review of nondestructive testing results.

6. Modify 10.1 to clarify Section 10 does not apply for in-service welds.

**Proposed Action – Add to Section 10.1 the following text:**

Repair of weld defects found in in-service welds are not addressed by Section 10.

7. A section 10.2.8 Additional guidance criterion is to be supplied to the committee for future revision by Madana Mohan Kunjapur with Shell Pipeline Company.

**Proposed Action – Company practices/requirements provided to the subcommittee will be considered for a future revision to this section.**

**New Items**

1. Review, revise, and confirm hardness testing locations for Figures 21 through Figures 26.

**Proposed Action – Subcommittee members are to provide recommendations for changes at the January 2017 meeting for inclusion in the 22nd Edition.**
2. Revise 10.4.1 to clarify that repair welds made using a production weld procedure requires welders qualified in accordance with Section 10.4. The interpretation that only repair welds made using a qualified repair procedure require welders qualified in accordance with Section 10.4 is erroneous.

**Proposed Action** – Revise section with proposed text change at the January 2017 meeting for inclusion in the 22nd Edition.

3. Alan Beckett, Alyeska Pipeline Service Company, representing AWS notified the members of his intent to resign as Chairman of the Repair Welding Subcommittee. Interested members and non-member individuals should let Tim Burns know of their interest in serving in this leadership position.

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Alan S. Beckett, Chairman, Repair Welding Subcommittee