The Maintenance Welding Subcommittee was called to order by the sub-committee co-chairs, Bill Bruce and Matt Boring, at 10:05 AM. The sign-in sheet was passed. A total of 14 participants attended the meeting. Bill Bruce explained that all members present were welcome to vote. Those present introduced themselves and their affiliation.

The following is a description of the significant items that were discussed:

Errors and Omissions in Annex B in Twenty-first edition of API 1104 – Bill Bruce showed a presentation pertaining to the issues noted in Annex B and asked the members to vote on the suggested dispositions.

- Changes to Figure B.1 were proposed as errata, which passed unanimously.
- A correction from Reference 7 to Reference 20 was proposed as an erratum, which passed unanimously.
- A removal of the paragraph in B.2.1.1 that was copied to B.2.3.1.1 was proposed as an erratum, which passed unanimously.
- A change in the note in B.2.3.1.1 to include “should” was proposed as an erratum, which passed unanimously.
- A change in the note in B.2.3.1.3 to include “should” was proposed as an erratum, which passed unanimously.
- A change in the note in Figure B-2 was proposed as an erratum, which passed unanimously.
- A change in the angle units in Figure B-2 was proposed as an erratum, which passed unanimously.
- A change in Figure B-4 was proposed to be presented to the committee voting members as an addendum, which passed unanimously.
- A change in the reference to Figure 9 was proposed as an erratum, which passed unanimously.
- Changes to Figure B.6 were proposed as errata, which passed unanimously.

The subcommittee members were asked to email Bill Bruce or Matt Boring with any additional issues noted in Annex B.
Comment Resolution Spreadsheet – The comment resolution spreadsheet provided by Ed Baniak was opened, so the comments pertaining to Annex B could be addressed. It was recommended that the last paragraph of B.1 have the references to “document” changed to “standard.” It was agreed that these modifications will be considered for the Twenty-second Edition. The other comments were already addressed in the Twenty-first Edition and were considered closed.

Other Improvements for Annex B for Twenty-second Edition – It was recommended that improvements to Figures B.7 through B.12 be considered for the Twenty-second Edition, including consistency in the weld numbering (especially in the detail drawings), as well as inclusion of verbiage on the NDE sequence. The subcommittee members were asked if they routinely see inspection between passes for in-service welding. It was noted that tank inspection often has dye penetrant performed between passes. Another subcommittee member had seen dry magnetic particle inspection between layers, but emphasized that cleaning is imperative. Finally, it was noted that ASME B31.3 has “progressive inspection” requirements for certain service types and categories.

It was suggested that the in-service welder qualification requirements be clarified in the Twenty-second Edition. The differences between Annex B and Section 6 should be considered, especially with regards to single vs. multiple qualifications, diameter groupings, cellulosic-coated vs. low-hydrogen electrodes, and open root butt welds. It was recommended that the essential variables in Annex B be moved to the beginning of the paragraph in B.3.

A question was raised as to whether Section 10 applied to weld repairs made utilizing Annex B, and the consensus was that the requirements did apply. An action item for the improvement of the Twenty-second Edition is whether the thermal severity should be considered, as in Annex B, or if the repair of a weld should be by utilizing the original procedure.

It was noted that for the Twenty-second Edition, the maintenance welding subcommittee members will liaise with the other subcommittees to address welder qualification and repair of in-service welds.

Other Business – Bill Bruce provided an update on an upcoming PHMSA advisory bulletin on electrode suffixes. It was proposed that a task group be formed to update Table 1 in the Twenty-second Edition, and perhaps provide a note in the interim to consider suffixes. The motion passed unanimously. Bill Bruce explained that, in the report to the main committee, he would cover the errata and addendum issues discussed, the approval for letter ballot, and the proposed task group.

The chairman thanked everyone for their participation. The meeting was adjourned at approximately 12:00 PM.