1.0 OPENING SESSION - Tuesday, January 17, 2017

1.1 The opening session of the main committee meeting was called to order by the Chair at 1:01 PM. The hotel and ballroom exits were described and safety information was reviewed. The sign-in sheet and roster were passed around.

1.2 The Chair invited everyone in the room to introduce themselves.

1.3 Following introductions, the Chair noted the timeline for changes to the standard - should be completed by the middle of 2017 to allow for the Twenty-Second Edition to be published by the end of 2018.

1.4 The Chair noted the need for three task groups: The first for determining the next officers of the API 1104 Committee; the second will be an Editorial Task Group to coordinate the changes to all sections in the Twenty-Second Edition of API 1104; and the third task group will be responsible for revising the committee by-laws. Task groups will be populated in accordance with 1104 by-laws.

1.5 The Chair asked voting members to stand, including those designated as proxies. There were a total of 24 voting members and proxies in attendance (out of a total of 28 possible), establishing a quorum.

1.6 A moment was taken to honor the memory of Don Drake, who passed away in 2016.

1.7 The minutes of the 2016 meeting in Austin were approved, seconded and passed by unanimous vote.

1.8 The agenda for the opening session of the meeting was presented. Two slight adjustments to the agenda were noted by the Chair. Chuck Woodruff made a motion to approve the agenda as amended and Tom Reeder seconded the motion. The agenda was unanimously approved.
1.9 API staff presented the annual update – see Attachment A. The current edition of the standard (Twenty-First) was published in September 2013 and is currently in the maintenance mode of the five-year review cycle, meaning that the next edition is due in 2018. The subcommittees should be reviewing and working on proposed changes now, including outstanding comments resolution items from the ballot to approve the Twenty-first Edition, to meet the five-year cycle. The timeline for the development of the next edition (Twenty-Second) was reviewed.

1.10 API staff explained that Standard 1104 is a regulatory document, but not in its entirety. The National Technology Transfer and Advancement Act (NTTAA) states that all regulators have an obligation to consider any document in the public domain, as a potential regulatory document, in lieu of writing regulations themselves. Once a document is incorporated by reference (IBR), it becomes law. Certain section of the Twentieth Edition of API 1104 (Sections 5, 6, 9, 12, and Annex A) are currently IBR into the Code of Federal Regulations by the Department of Transportation (DOT) Pipeline and Hazardous Materials Safety Administration (PHMSA). Annually, DOT PHMSA will review published documents and may begin a technical review. When the Twenty-second Edition of the standard is published, API will provide it to DOT PHMSA for consideration.

1.11 Bill Bruce gave a presentation on improvements to API 1104 for the Twenty-Second Edition, highlighting several examples of ambiguity that need to be addressed as well as the issue of girth weld strength matching – see Attachment B.

1.12 The Chair explained that subcommittee report outs will be rotated annually. Report outs will not be accepted until electronic files are provided to the Chair or Secretary for inclusion in the Meeting Minutes.

1.13 The Chair asked that any old business be discussed - none was raised.

1.14 A motion to adjourn the opening session was made, seconded and passed by unanimous vote at 2:54 PM.

2.0 CLOSING SESSION – Thursday, January 19, 2017

2.1 The closing session of the main committee meeting was called to order by the Chair at 1:02 PM. He asked for all voting members to stand. 18 voting members (out of 28 possible) were present which established a quorum.

2.2 Ken Lee from the US DOTPHMSA presented the DOT PHMSA report – see Attachment C. Alan Mayberry is the new Associate Administrator for Pipeline Safety. PHMSA was reauthorized in June of 2016 as part of the 5 year cycle under the Protecting our Infrastructure of Pipelines and Enhancing Safety (PIPES) Act of 2016. Examples of the new PHMSA actions mandated by the act were highlighted. Additionally, the Hazardous Liquids
Final Rule was published the previous week. The Twenty-First Edition of API 1104 is slated to be IBR into the Code of Federal Regulations, but the timeframe is currently unknown. Appendix B of the standard is also proposed to become IBR.

2.3 Doug Fairchild gave a presentation on the proposed Strain-Based Engineering Critical Assessment (SBECA) annex to API 1104 – see Attachment D. The new annex would be based on the ExxonMobil SBECA protocol, which was released to the public in 2016. Doug Fairchild requested the creation of a task group, which will be discussed during the “New Business” portion of the meeting.

2.4 The Chair invited report-out presentations from each of the subcommittees and task groups.

General Interest Subcommittee – Tim Burns – see Attachment E. This subcommittee was formed to look after areas of the standard which do not currently fall under the purview of any other subcommittee (i.e. Sections 1, 2, 3, 4, 7, and 13). The subcommittee will also work on harmonization of the standard as a whole, especially with regards to terminology. The outstanding comments resolution items from the ballot to approve the Twenty-first Edition for the sections under the purview of the General Interest Subcommittee will be addressed. The subcommittee will meet again in March of 2017 in Houston. Volunteers interested in participating in the subcommittee were asked to contact the Tim Burns.

In-service Welding Subcommittee – Bill Bruce – see Attachment F. During the subcommittee meeting, Bill Bruce presented work performed by DNV GL for Alyeska to develop and qualify procedures for internal weld deposition repairs and the installation of internal repair sleeves. This was a unique application of Annex B. The majority of the subcommittee meeting was spent discussing improvements to Annex B for the Twenty-Second Edition and the desire to make Annex B more independent of the main body of the standard. These efforts include an update of the welder qualification requirements for in-service welding, the clarification of essential variables in Annex B for welding procedure qualification, as well as repair of in-service welds. Finally, the definition of an “in-service” weld may be revised.

Mechanized Welding Subcommittee – Bob Huntley – see Attachment G. The subcommittee meeting was attended by 30 people. A working group removed references within Section 12 to Section 5 and 6. Additionally, another working group focused on a review and potential update of the essential variables in Section 12, with coordination with the subcommittees responsible for Section 5 and Annex A. A straw poll was taken in the subcommittee to determine where to focus change efforts.

2.5 At 1:39 PM, the Chair passed around the sign-in sheet and roster. The presentations from the subcommittees and task group resumed.

Nondestructive Testing (NDT) Subcommittee – Dave Culbertson – see Attachment H. There were 34 in attendance at the NDT subcommittee meeting. As a follow up from the 2016
meeting, approval for a new task group to consider acceptance criteria for tungsten inclusions was requested. The subcommittee plans to complete revisions for consideration in the Twenty-Second Edition of the standard by July.

Automatic UT Task Group – Bob Bates – see Attachment I. A working group was formed to ensure changes to the radiographic testing (RT) section of the standard would not affect the ultrasonic testing (UT) requirements in Section 9.6. An additional working group will be formed to compile language specifically related to advanced ultrasonic methods that are currently being used but are not referenced in the API-1104.

Radiographic Testing Task Group – Dave Culbertson – see Attachment J. During the task group meeting, nine proposed changes were discussed. During the NDT subcommittee meeting, the RT Task Group presented these proposed changes. Eight of the proposed changes were presented to the main committee for consideration. The development of modifications to include digital and computed RT is currently underway and the committee will be updated on the progress next year.

2.6 At 3:05 PM, the attendees took a brief break and resumed the meeting at 3:22 PM.

Task Group on NDT for Repair and In-Service Welds – Matt Boring – see Attachment K. The task group met with 22 in attendance. The task group contains two working groups: one to look at inspection of in-service welds and another to look at inspection of repair welds during new construction. The progress from the two working groups was reviewed. Several action items for the task group were developed, including review of API 1107, AWS D1.1, and other industry practices. A brief discussion occurred on whether Annex B should be removed from API 1104 and made into a stand-alone document, as was the case for API 1107.

Repair Welding Subcommittee – Geoff Rogers – see Attachment L. The subcommittee meeting had 38 participants in attendance. The subcommittee reviewed the interpretations applicable to Section 10 since the 2016 meeting. A working draft of revisions to Section 10 were presented and discussed at the subcommittee meeting. The goal of the revisions was to simplify and clarify the requirements for repair welds. A working group was formed to continue revisions to Section 10.

Welding Procedures and Welder Qualification Subcommittee – Bill Marhofer – see Attachment M. The subcommittee meeting had 40 participants in attendance. The interpretations made by the ITG that are relevant to the subcommittee were reviewed, and one interpretation was revised. The group examined Section 6.5.5 that uses the term ‘high strength pipe’ with reference to side bends, and proposed a change to the language to clarify the intent. The group also discussed progress on the base material grouping list for inclusion in Section 5. The working group to revise essential variables has proposed additional changes, including potentially using a tabular format in the Twenty-Second
Edition of the standard. Changes to the welder qualification requirements in Section 6 were presented.

Task Group for Table 1 – Jon Lee – see Attachment N. The task group met briefly to discuss progress on the update to Table 1, filler metal groupings, for the Twenty-Second Edition of the standard. Following the meeting, the Task Group presented the progress to the Welding Procedures and Welder Qualification Subcommittee. The working table was briefly presented to the committee. The Task Group will continue to make progress via teleconference/webcast meetings over the next few months.

Fracture Mechanics Subcommittee – Yong-Yi Wang – see Attachment O. The subcommittee developed voting criteria for voting members of the subcommittee and discussed a recent interpretation request to the ITG applicable to Annex A. Extensive discussions on the development of criteria for ductile behavior in Charpy impact tests occurred. Individual subcommittee members were assigned to various additions and revisions to Annex A for the Twenty-Second Edition of the standard.

Annex A Task Group on Installation ECA – Robin Gordon – see Attachment P. Tom Jarvie recently agreed to replace Frans Kopp as co-chair of the Task Group. The task group meeting had 30 participants in attendance. The Task Group had various presentations on NDE reject rates on reeled pipeline projects, updates on Sections 5 and 12 essential variables, and the upcoming major changes to DNV OS F101 and DNV RP F108. A schedule for the development, review, and commenting process for the new annex was developed.

Interpretations Task Group – Tim Burns – see Attachment Q. The ITG met prior to the opening session of the main committee meeting. The group developed proposed responses to the outstanding requests for interpretations, except for one which was sent to the Fracture Mechanics subcommittee for a response. Interpretation No. 16 was revised by the Welding Procedures and Welder Qualification Subcommittee and Interpretation No. 17 was addressed by the Fracture Mechanics Subcommittee. The responses to these two interpretations were presented. The Chair asked all subcommittee chairs (ITG members) to raise their hands; 13 members were present, establishing a quorum. The interpretations were unanimously approved.

API 1104/5L Joint Work Group – Tim Burns – see Attachment R. Tim Burns reported that Yong-Yi Wang gave a presentation on heat-affected zone (HAZ) softening – see Attachment S. This topic was discussed by the pipe manufacturers and purchasers (operating companies) during the working group meeting. The concern for HAZ softening as the result of the current alloying strategy used by the pipe manufacturers will likely be a challenge in the industry for years to come, and several subcommittee groups have discussed potential changes to minimize the issue.

2.7 At 4:32 PM, the Chair moved on to the new business portion of the agenda.
Noted that the list of interpretations is under-utilized by the industry because it is difficult to find; so a suggestion was made that the committee request that API do one of the following: 1.) add the URL for interpretations database to Annex C, 2.) include the interpretations database in a new Annex, or 3.) create a dedicated website for API 1104 with easier access to interpretations/addenda/errata. The chair will discuss this with API staff (Action Item 2017-1). The Secretary indicated that he would include the URL for the interpretations database in the meeting minutes, which is:

http://mycommittees.api.org/standards/techinterp/transpipe/default.aspx

The Chair stated that a new task group on SBECA will be formed (Action Item 2017-2). The task group will be co-chaired by Doug Fairchild and Rick Noecker.

A brief discussion was held on the need for a new task group or a liaison to coordinate the changes to essential variables in Sections 5, 10, 12, Annex A, and Annex B. It was stated that these efforts are already being coordinated and no new task group or liaison is required. The subcommittees are not responsible for the document formatting and style; this will be addressed by API prior to balloting.

The Chair stated that a new Editorial task group will be formed (Action Item 2017-3). The task group will be co-chaired by Melissa Gould and Matt Boring. It was clarified that the Editorial Task Group may make any editorial changes to the document, as editorial changes do not require approval by the applicable subcommittee.

The Chair stated that a new Nomination Task Group will be created (Action Item 2017-4). The task group consists of Charlie Ribardo, Dave Culbertson, and Bob Bates. The Task Group will submit suggestions to the committee for the new officers within three months.

The Chair opened the floor to the committee to discuss whether Section 13 (Automatic Welding Without Filler Metal Additions) should be removed from the Twenty-Second Edition of the standard. Attendees stated that Section 13 should remain, however it needs to be revised. As written, Section 13 only allows flash butt welding, and does not include other processes, such as friction stir welding. The General Interest Subcommittee currently oversees Section 13 and will be responsible for proposed edits.

The Chair took a straw poll to determine whether the committee should meet at the Summer Standard meeting in Calgary in June. The majority of voters abstained. API staff noted that API may be able to coordinate a one-day meeting during that time period if required in Houston instead. Additionally, meeting space for subcommittees and task group is available in Houston at the API office in the Galleria area and at the PETEX Houston Training Center. Subcommittees and task groups were advised to contact Ed Baniak with advanced notice to reserve these meeting spaces.

2.8 The Chair stated the next winter meeting of the committee will be January 22-26, 2018 in San Antonio, Texas.
2.9 A motion to adjourn was made by Dave Culbertson at 5:12 PM and Charlie Ribardo seconded the motion. The motion passed unanimously and the meeting was adjourned.

3.0 2017 ACTION ITEMS
Action Item 2017-1 – Chair to work with API staff to make the API 1104 interpretations database more publicly available and accessible.

Action Item 2017-2 – Doug Fairchild and Rick Noecker to lead a new task group on SBEC.


Action Item 2017-4 – Charlie Ribardo, Dave Culbertson, and Bob Bates to act as the nominations task group to suggest new committee officers.

4.0 ATTACHMENTS
B. Presentation – Improvements to API 1104 for the Twenty-Second Edition – Bill Bruce
C. Presentation – DOT PHMSA Report – Ken Lee
D. Presentation – Strain-Based Engineering Critical Assessment (SBEC) – Doug Fairchild
E. Subcommittee report – General Interest – Tim Burns
F. Subcommittee report – In-service Welding – Bill Bruce
G. Subcommittee report – Mechanized Welding – Bob Huntley
H. Subcommittee report – Nondestructive Testing – Dave Culbertson
I. Task group report – Automatic UT Task Group – Bob Bates
J. Task group report – Radiographic Testing Task Group – Dave Culbertson
K. Task group report – Task Group on NDT for Repair and In-Service Welds – Matt Boring
L. Subcommittee report – Repair Welding – Geoff Rogers
M. Subcommittee report – Welding Procedures and Welder Qualification – Bill Marhofer
N. Task group report – Task Group for Table 1 - Jon Lee
O. Subcommittee report – Fracture Mechanics – Yong-Yi Wang
Q. Task group report – Interpretations – Tim Burns
R. Task group report – 1104-5L Joint Task Group – Tim Burns
S. Presentation – Heat Affected Zone Softening – Yong-Yi Wang

Respectfully submitted,
Bill Bruce
Secretary
API-AGA Joint Committee on Oil and Gas Pipeline Field Welding Practices