SUBCOMMITTEE ON PIPING AND VALVES
Piping Subgroup on Quarter Turn Valves and Valve Quality
Monday, May 6, 2019
Grand Hyatt San Antonio – San Antonio, TX
Chairman: James Hebert

Meeting Minutes

I. Introductions and Record of Meeting Attendance
Chairman James Hebert called the meeting to order at 1:29 PM. 129 individuals were counted in attendance.

II. Approval of Agenda
The agenda was edited from the document available on the sharepoint site prior to meeting to denote that RP 591 was published in April. A motion was made and seconded to approve the agenda. The motion passed unanimously.

III. Approval of Minutes of Last Meeting
No corrections or additions were requested for the previous meeting minutes. A motion was made and seconded to approve the minutes. The motion passed unanimously.

IV. Standards Activity
- API RP 591 – 6th edition was Published 4/2/2019
- API 598 – Announcement was made Mark Fleet will be leading the task group for the 11th edition.
- API 599 – Rob Enneking provided an update in absence of task group leader Mark Etter
  i. Latest ballot results: 33 affirmative, 6 abstain, 2 DNV, 8 comments
  ii. Five comments on definition of shell. Proposed wording includes the body-bonnet bolting.
     1. Luke Chou discussed to make sure the rest of the standard accurately references “body” material instead of “shell” material where applicable to avoid contradiction with the material type.
     2. Ray Bojarczuk addressed there are several reasons a bolting material may be changed and adding bolting to the definition can be complicate the situation.
     3. Task group to discuss this topic further
  iii. Paragraph 6.7.2 regarding API 641 requirement and the applicability to lift type plug valves. Task group decided to leave as is.
iv. Announcement was made that the task group meeting that was previously scheduled had been canceled.

- API 607 – New Task Group is forming. Bill Patrick has volunteered as the leader.
- AP 609 – New Task Group is forming. Gobind Khiani has volunteered as the leader.
- API 615 – Ray Bojarczuk provided an update.
  i. Commented that the task group is focusing on expanding the document to provide more detail. Stated that any subgroup members can submit proposed changes to specific sections.
- API 641 – Loic Deneuville provided an update.
  i. Proposed scope extension to NPS 48
  ii. Proposed scope extension to include rising/rotating type design
     1. To include lift style plug valves or ball valves
     2. There was a comment from the group that the current wording as shown on the presentation may be confused with globe valves.
  iii. Proposed testing with stem in horizontal position
     1. Ray Bojarczuk comment that majority of ball valves would be installed with the stem vertical and felt the stem horizontal installation is more applicable to butterfly valves. The stem orientation could be different based on the valve type.
  iv. Proposed increase in cycles to 1500 mechanical cycles but allow one stem adjustment.
     1. The task group felt this would better align with API 622 and the ISO test standards
     2. Gil Perez commented these additional cycles would account for a much longer test time, especially since the scope is proposed to increase to NPS 48. Gil also questioned if this would invalidate previous tests.
     3. Ray Bojarczuk commented high cycle valves are in the range of 10,000 cycles and that 610 to 1500 wouldn’t matter in the grand scheme.
     4. Loic stated that since 641 does include stem seals outside of 622 this would allow better testing of those seal types.
     5. Rich Davis commented that the thermal cycles create more leaks than the mechanical cycles.
     6. Matt Wasielewski reaffirmed the intent was to better align with API 622 and ISO 15848.
     7. Denny Knight commented the first edition of the standard was balloted 1510 mechanical cycles with 1 allowable seal adjustment, but was voted down. 610 mechanical cycles with zero adjustments was the agreed upon requirement and published.
     8. Luke Chou commented the proposed valve size in scope may not be necessary since qualification is based on stem size, not NPS.
9. Priyank Garg commented that intent is to cover at least up to NPS 48 but clarified that larger sizes may be qualified based on other factors.

10. Task group to discuss further

v. Proposed to add helium as a potential test medium

1. The intent is helium provides an alternative media that would eliminate some of the methane constraints.
2. Rich Davis commented other test standards are looking at possibly using other gases such as nitrogen or other inert gas due to helium supply constraints for the high temperature tests.
3. Comments from the group regarding optional gases of the standard test creates questions regarding which test to conduct and there is no correlation between helium and methane leakage readings.
4. Rodney Roth commented LDAR programs are all based on a parts per million leak rate not volumetric leak rates.
5. Ken Felder suggested for API 624 and 641 to work on high temp testing together to be aligned with each other for high temp testing.
6. Ray Bojarczuk stated API 641 qualified valves may have lower temperature rated stem seals therefore it may not necessary for API 641 to be aligned with API 624.
7. The task group will discuss further

vi. Proposed higher pressure with both methane and helium to be more representative of actual pressures the valves are typically exposed to.

vii. Proposed to allow for partial testing for qualification

viii. Task group is meeting on Tuesday, May 7th.

• Break at 2:26 with planned return at 2:45 pm
• Reconvened from break at 2:47 pm
• API 608 – Ken Gottselig provided an update (it was decided earlier in the meeting to move this discussion to after API 641).

i. 5th Ballot results
   1. 28 Affirmative
   2. 3 Negative
   3. 4 Abstain
   4. 6 DNV
   5. 39 Comments, majority of comments were on 2 sections

ii. Sections 3.6 & 3.7 Definitions of bidirectional and unidirectional valves. 15 comments on Proposed “Valve-bidirectional” and “Valve-unidirectional” definitions
   1. David Bayreuther suggested a third definition is needed for a valve with two different ratings in both directions. Some valve designs seal in both directions but each direction has a different pressure rating.
2. Luke Chou stated API 609 addresses this type of design a preferred direction terminology
3. David B suggested “bidirectional with equivalent flow” and “bidirectional with restrictions”
4. Discussed wording for new definition for “Valve-bidirectional” as “Type of valve having shut-off capability in both directions”
5. Sections 8.5 & 8.6 “PE” changed to “HP” due to foreign language confusion comment
6. Kasey Crowell commented to added high-pressure side of the valve “when closed” to section 8.5.
7. Discussion took place to possibly combine sections 8.5 and 8.6 (unidirectional and bidirectional) marking requirement into one paragraph.
8. Terry Blackard preferred two separate sections instead of combining to one section as it may create confusion if it were combined.
9. A floor poll was taken of voting members. Hands to keep separate was counted at 15. Hands to combine was counted at 11.
10. Task group to work on separate paragraphs
11. Kasey Crowell commented to add “when closed” to section 8.6 as well.
12. A question raised why “when closed” is necessary. Response was in order to avoid confusion with flow.
13. Ray Bojarczuk commented that valves are sometimes installed in the opposite direction from the “preferred” direction and that the actual high pressure side may not be where the “HP” is marked.
14. A discussion took place about arrows marked on valves as those may cause confusion because arrows are often mistaken to mean the flow where that may not always be the case.
15. A suggestion was made to add stamping as an option for the marking.
16. Comments from the group were made with concerns this standard is requiring different marking from API 6D, but the valves may be the same design. Response was the task group had received comments that the arrows create confusion as they are interpreted to mean flow direction.

iii. A review was conducted of the sections 8.5 and 8.6 as they were edited during the meeting. Lance Bagley suggested to have “PHP” for preferred high pressure so you have different marking between a valve with preferred sealing and a unidirectional valve.

1. Wording to stay with the same marking “HP” on both paragraphs. The re-wording changes will be re-balloted and limited to technical changes only. “When closed” removed from both reworded sections.
V. New Business

No new business was discussed

VI. Next Meeting

The next meeting is scheduled to take place in Atlanta, GA on November 18, 2019

VII. Adjournment

A motion of adjournment was made, seconded, and unanimously passed. The meeting was adjourned at 3:32 pm.

Respectfully submitted,

Jason Legendre