

American Petroleum Institute
Subcommittee on Pressure Relieving Systems
Task Force on RP-520

Sheraton Seattle Hotel, Seattle, WA

Monday, April 16, 2007 10:10 am to 6:00 pm
Phil Henry – Chairman

Meeting Minutes

I. Introductions and registration of attendance

Registration was taken and introductions made. Handouts consisted of the fourth Ballot for API 520 Part 1, a summary of ballot responses and comments, and a packet that included the agenda, previous meeting minutes, the ballot 3 comment review, three technical inquiries, and documentation related to RP520 Work in Progress.

II. Appointment of Secretary to record the minutes

Don Griglack was appointed secretary.

II. Approval of minutes of fall 2006 meeting.

The minutes of the fall meeting were approved with a minor correction.

IV. Review of Inquiries

a. Inquiry 520-I-01-06 from WorleyParsons

The task force approved the following response to the inquiry:

The majority of your inquiry is considered to be consulting in nature. API does not provide consulting on specific engineering problems or on the general application of its Standards.

The intent of paragraph 4.2.2 of the 5th edition of API RP520 Part II is to limit the pressure reduction at the inlet of the pressure relief valve, after the valve opens, to 3% of the set pressure, regardless of the cause of overpressure. In addition, the pressure relief valve opening pressure and maximum allowable accumulated pressure of every component of the protected system must meet applicable codes requirements.

b. Inquiry 520p2-I-01/07 from Englobal Engineering.

The task force approved the following response to the inquiry:

Section 6.3.2 of API RP520 Part II does not specifically address stem orientation for outlet isolation valves as does Section 6.3.1d for inlet isolation valves. However, it is common to orient the stem of any gate valve in the pressure relief path in a horizontal or downward manner to minimize the possibility of internal failure resulting in the pressure relief path being blocked.

Phil Henry has the action item to add consideration of requirements for orientation of pressure relief valve outlet gate valve to the work list for Part 2.

Question from SimulationRSI

The task force agreed to leave the existing response from Roland Goodman to this question until a valid inquiry or interpretation is received.

V. API RP520 Part I Ballot 4 Comment Review

Phil noted that the ballot response rate was 83% with 100% affirmative, so the ballot passes. The group then reviewed the comments that were received with the ballot. Resolutions for each of these items are captured in “API Ballot Comments and Resolutions” document, which Phil Henry will update and issue.

VI. Discussion of Converting API RP520 to STD

The task force approved issuance of the next edition of 520 as an API STD.

VII. Discussion of API 520 as an ISO Standard.

Much of the discussion centered on the convergence of RP520 and ISO-4126 specifically with regard to the possibility of getting ISO to accept RP520 as a separate standard applying only to oil, gas and petrochemical industries. This was contrasted with the merits of getting involved with the revision process for ISO-4126 to get it changed to more closely address this industry’s needs.

It was generally agreed that an analysis of the differences between the two documents was a necessary starting point for this work. Aubry Shackleford volunteered to begin this gap analysis, in an effort to gauge the scope of that effort, by analyzing ISO-4126 Part 1 against RP520, provided he is given legitimate access to a copy of ISO-4126.

Phil Henry volunteered to perform the same analysis with respect to ISO-4126 Part 9.

Phil Henry has an action item to check with Roland about obtaining the required copy of ISO-4126 for Aubry.

Phil Henry has an action item to ask Roland about inclusion of “must” 31 times in a STD.

It was further agreed that members of the group who are not already familiar with ISO-4126 would learn more about it as a step in the direction of getting RP520 into the ISO world either through TC67 or TC185.

VIII. API RP520 Part II Work in Progress

1. Aubry Shackleford is looking for volunteers to work in a sub-group to examine inlet pressure loss and stability. Volunteering were: Hari Attal, Tom Bevilacqua, Chester Brooke, Chip Eskridge, Jude Golla, Phil Henry, Bob McMican, Mike Porter, Freeman Self, and Ed Zamejc. Mohammed Ali requested that he be copied on all correspondence.
2. Chip Eskridge discussed pros and cons of straight-cut and beveled tailpipes. It was generally agreed that RP520 Part 2 should consider providing guidance on the use of beveled versus straight tail-pipes.

Chip agreed to draft some text to that end for review at the next meeting.

Ed Zamejc also pointed the group to the article “The Effect of Bevel Angle on Safety Valve Vent-Pipe Systems”, Chung-Hsiung Li, Journal of Engineering for Power Volume 103 p 587-588 (July 1981).
3. Double Disk Assemblies. Draft guidance on the use of double rupture disks assemblies was reviewed. It was agreed that the topic is worth addressing in a future edition of RP520 Part 2.
4. Balanced Bellows Venting Options – Sample figures were presented showing piping configurations for venting bellows valve bonnets to a “safe location”. It was agreed that the task force will work to put similar figures in a future edition of Part 2 with some explanatory text. The units on Fig 4 need to be addressed.
5. Installation drawing for closed system RD application. It was agreed that there is still a need to address this issue in a future edition of Part 2. It was also noted that the existing RD installation drawing (Figure 3) should be modified to show a weep hole at the outlet of the RD assembly.
6. Proposed modification to Section 6.0 Drain Piping. Not discussed.
7. Noise calculation from vent lines. It was agreed that, if this is to be addressed, it is best done in STD521. Will not be considered further.
8. Required vs. Rated flow for Inlet Pipe Sizing. Consensus that more work needs to be done to address this issue, though the first step is to determine what data is needed (and available) to allow meaningful work to be done. Deferred to Aubry’s new sub group.

9. Barry Weber presented information about PRV bellows gasket failures attributed to replacement of the gasket with a material incompatible with the fluid service. It was agreed that the standard should provide some guidance to the user about internal gaskets and discharge side fluids. Cautionary statements and an item on the datasheet were added to part 1

IX. Old Business – Did not discuss

X. New Business –

An issue was raised regarding copying and use of the RP520 Relief Valve Specification Sheets as presently covered by API copyright. Phil Henry has an action item to address a possible waiver of API copyright on the data sheets and the data sheet explanatory text, as was done for STD 537.

RECORD OF MEETING ATTENDANCE

GROUP PRS subcommittee CHAIRMAN Phil Henry
 MEETING TF 520 TIME 8:30 - 6:00 DATE 4/16/07

COMMITTEE MEMBERS SHOULD MAKE CHANGES TO THEIR PERSONAL RECORD ON THE ATTACHED ROSTER.
 VISITORS ADDING NAMES TO ROSTER WILL NOT AUTOMATICALLY BECOME MEMBERS OF THE COMMITTEE.

Indicate **BEFORE YOUR NAME** if you are:

- (M) Member of the Committee in session
- (R) Representing a Committee Member (if so, state member's name)
- (V) Visitor - ONLY voting members or their Representatives may vote
- (S) Staff

↓	NAME (Please Print)	COMPANY/PHONE or email
✓	Dow Jones	Envard ydjones@envarco.com
M	S. Mohammad Ali	S-mohammad.ali@ConocoPhillips.com, ConocoPhillips
M	Phil Henry	Equity Engineering / phenry@equityeng.com
M	CHESTER BROOKE	Shell chester.brooke@shell.com
M	ED ZAMEJR	BP ZAMEJR@BP.COM
M	MUSHTAQ MASTER	BP : MASTERM@BP.COM
M	Tom Bevilacqua	Siemens Oil, Gas, & Marine tom.bevilacqua@siemens.com
M	Jude Golla	golla@davlin.net
V	Thomas Heidemann	Protego Germany Thomas.Heidemann@protego.de
V	Michael Davies	Protego USA michael.davies@protego.com
M	DEAN MILLER	FIKE CORP. DEAN.MILLER@FIKE.COM
V	Daniela Preusse	PROTEGO USA daniela.preusse@protego.com
V	JEFF STOKES	FIKE CORP JEFF.STOKES@FIKE.COM
M	HAARON LOEVAASEN	STATOIL HAAL@STATOIL.COM
M	Michael K. Porter	Chevron TretaMK@Chevron.com
M	STEVEN S. PALMER	BS&B SAFETY SYSTEMS stratops@aol.com
M	BARRY FRIEDMAN	WASHINGTON GROUP INTERNSIONAL BARRY.FRIEDMAN@WGINT.COM
M	JOHN STRATZ	NAO NAOTFS@aol.com

THIS FORM MUST BE RETURNED TO THE API STAFF

API standards meetings are open to all interested parties. By participating in the standardization process, you agree: (1) to fully comply with API's policies and procedures governing standards, (2) that once balloted and approved by API, API shall have the sole and exclusive right to use any materials that are submitted by the participant for use in the standard, (3) you will not provide any material that will violate the rights of any third parties including, but not limited to, patents, copyrights, trade secrets, and trademarks, and (4) to disclose the existence of any patented technologies in the material that you provide.

