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THE NATIONAL BOARD

OF BOILER AND
PRESSURE VESSEL
INSPECTORS

NATIONAL BOARD SUBCOMMITTEE PRESSURE RELIEF DEVICES

MINUTES

Meeting of July 19, 2017 Columbus, OH

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1. Call to Order

The meeting was called to order at 10:45 AM on Tuesday July 19, 2017 by Chair Sid Cammeresi.

The following members and visitors were in attendance:

Members Affiliation

Marrianne Brodeur International Valve & Instrument Corp.

Kevin Simmons Emerson Brandon Nutter DuPont

Sid Cammeresi TeamFurmanite

Adam Renaldo Praxair

Denis DeMichael The Chemours Company
Dan Marek Mainthia Technologies
Thakor Patel Farris Engineering
David McHugh Allied Valve, Inc.
Raymond McCaffrey Quality Valve, Inc.
Kim Beise Dowco Valve

J. Alton Cox JAC Consulting, Inc.

Thomas P. Beirne, P.E. National Board (Subgroup Secretary)

Members Not Present

R.W. Donalson Emerson

Visitors

Kristen Kraabel Dowco Valve Company

National Board Joseph Ball Alfred Donaldson **Baker Hughes** Emile Tezzo* Emerson Austin Hynson Quality Valve Mac McCaffrey Quality Valve Junior Little Eastman Chemical Ken Jones Eastman Chemical Scott Artrip Eastman Chemical **TRT Consultants** Tom Tarbay

2. Announcements

Mr. Cammeresi announced the reception for Wednesday and meals provided.

^{*}Alternate for R.W. Donalson

3. Adoption of the Agenda

The agenda dated June 29, 2017 was presented. The motion was unanimously approved.

4. Approval of Minutes

It was moved and seconded to approve the minutes of the January 2017 meeting of the Subcommittee on Pressure Relief Devices. The motion was unanimously approved.

5. Review of the Roster

a. Nominations

• There are no applications for membership to SC PRD.

b. Reappointments

• Raymond McCaffrey—SC PRD. Mr. McCaffrey indicated he is interested in continuing his membership. This item is on the Main Committee agenda for action.

c. Resignations

None

d. Officer Selection

- SG PRD Chair—Mr. Kim Beise was recommended by the SG PRD to be appointed Chair. A
 motion was made and seconded. After discussion, a vote was taken to appoint Mr. Beise Chair of
 SG PRD. The vote was unanimous in favor of appointing Mr. Beise.
- SG PRD Vice Chair—Mr. Daniel Marek was recommended by the SG PRD for Vice Chair. A motion was made and seconded. After discussion, a vote was taken to appoint Mr. Marek Vice Chair of SG PRD. The vote was unanimous in favor of appointing Mr. Marek.

6. Interpretations

Item Number: IN16-0901 NBIC Location: Part 2, 4 No Attachment

General Description: In NBIC Part 2, Sec. 2.5.7g), does the phrase "organization accredited by the National Board" include a VR Certificate Holder?

Subgroup: N/A

Task Group: None Assigned

Meeting Action: A motion was made and seconded to close this item with no action since the updated language in the 2017 edition negated the need for this interpretation. A vote was taken and the motion unanimously carried.

7. Action Items

Item Number: NB12-0901 NBIC Location: Part 4 No Attachment

General Description: Prepare a guide for repair of tank vents

Task Group: D. DeMichael (PM), K. Simmons, B. Donalson, K. Beise, B. Nutter

Meeting Action: Mr. DeMichael stated work on the text continues and may have draft by the next meeting.

Item Number: NB14-0602A NBIC Location: Part 1 No Attachment

General Description: Improve index in Part 1 relating to pressure relief devices

Task Group: M. Brodeur (PM), S. Cammeresi, K. Beise

Meeting Action: Work will resume on this item since 2017 edition is now published. Should have proposal by next meeting.

Item Number: NB14-0602B NBIC Location: Part 2 No Attachment

General Description: Improve index in Part 2 relating to pressure relief devices

Task Group: D. Marek (PM), B. Donalson, D. DeMichael, B. Hart

Meeting Action: Work will resume on this item since 2017 edition is now published. Should have proposal by next meeting.

Item Number: NB14-0602C NBIC Location: Part 3 No Attachment

General Description: Improve index in Part 3 relating to pressure relief devices

Task Group: B. Nutter (PM), R. McCaffrey, T. Patel, K. Simmons

Meeting Action: Work will resume on this item since 2017 edition is now published. Should have proposal by next meeting.

Item Number: NB 15-0108B NB IC Location: Part 1 No Attachment

General Description: Address pressure relief devices in new supplement on high temperature hot water boilers

Task Group: A. Renaldo (PM), D. Marek, D. McHugh, B. Nutter

Meeting Action: Work continues on this item.

Item Number: NB15-0305 NBIC Location: Part 4 No Attachment

General Description: Create Guidelines for Installation of Overpressure Protection by System Design.

Task Group: B. Nutter, A. Renaldo, D. Marek (PM), D. DeMichael

Meeting Action: A draft proposal was presented. After discussion and guidance from a jurisdictional member, the proposal will be revised and presented at the next meeting.

Item Number: NB15-0307 NBIC Location: Part 4 No Attachment

General Description: Create Guidelines for Repair of Pin Devices.

Task Group: D. McHugh (PM), A. Renaldo, T. Tarbay, K. Kraabel

Meeting Action: Work continues on this item. Should have draft by next meeting.

Item Number: NB15-0308 NBIC Location: Part 4 No Attachment

General Description: - Create Guidelines for Installation of Pressure Relief Devices for Organic Fluid Vaporizers.

Task Group: T. Patel (PM), K. Beise, B. Nutter

Meeting Action: A draft proposal was presented. After discussion the proposal will be revised. Should have proposal ready to vote on by next meeting.

Item Number: NB15-0310 NBIC Location: Part 4, 4.4.8.5 i)3) No Attachment

General Description: Give Guidance as to Which Spring Chart Should be used in Repairs.

Task Group: A. Cox (PM), B. Nutter, M. Brodeur, T. Patel, K. Simmons, R. McCaffrey, S. Irvin

Meeting Action: Proposal was presented. After discussion a revised proposal maybe letter balloted before next meeting.

Item Number: NB15-0315 NBIC Location: Part 4, 2.5.6 and 2.6.6 and Part 1, No Attachment 4.5.6 and 5.3.6

General Description: Review isolation Valve Requirements, and reword to allow installation of pressure relief devices in upstream piping.

Task Group: D. DeMichael (PM), B. Nutter, A. Renaldo, D. Marek

Meeting Action: Mr. DeMichael gave presentation and requested input on how detailed text needs to be. After input from SG PRD may have proposal for next meeting. Item 17-129 was closed with no action and will be combined with this item.

Item Number: NB15-0321 NBIC Location: Part 4, 3.2.5 a) and Part 2, 2.5.7 a) No Attachment

General Description: Review testing requirements for in-service testing of pressure relief devices

Task Group: A. Cox, A. Renaldo (PM), D. Marek, S. Irvin, D. DeMichael, B. Nutter, J. Ball

Meeting Action: No progress made on this item.

Item Number: NB15-0324 NBIC Location: Part 4 No Attachment

General Description: Create Guidelines for Inspection and Testing Frequencies with respect to shelf life and storage of pressure relief valves.

Task Group: A. Rendaldo (PM), B. Nutter, K. Simmons, D. Marek, J. Little

Meeting Action: Mr. Renaldo presented a draft proposal that will be letter balloted between meetings. J. Little added to task group.

Item Number: NB16-0401 NBIC Location: Part 4 No Attachment

General Description: Inconsistencies with Seal I.D. vs. Nameplate for test only

Task Group: A. Donaldson (PM), S. Irvin, T. Patel, D. Marek, M. Brodeur, B. Nutter

Meeting Action: No progress was made on this item. PM switched to A. Donaldson who was added to task group.

Item Number: NB 16-0603 NBIC Location: Part 4 S6 Attachment A

General Description: Add requirements for when the "NR" program is applied to safety related relief valves in nuclear service, came from NR task group

Task Group: NR Task Group

Meeting Action: Mr. Ball presented an updated proposal based on comments received from the Mr. Cox after the SG PRD meeting. A motion was made and seconded to accept the updated proposal. After further discussion a vote was taken with unanimous acceptance. This item is forwarded onto the Main Committee for action.

Item Number: NB16-0805 NBIC Location: Part 4, 2.6.6 and Part 1, 5.3.6 No Attachment

General Description: Temperature ratings for discharge piping and fittings

Task Group: A. Renaldo (PM), T. Patel, D. Marek

Meeting Action: Task group work continues on this item. May letter ballot SG between meetings.

Item Number: NB16-3101 NBIC Location: Part 4 Attachment B

General Description: Result of PR16-0501, add additional information about T/O program to NBIC

Task Group: None assigned

Meeting Action: Mr. Beirne presented a proposal. A motion was made and seconded to accept the proposal. After discussion a vote was taken and the motion unanimously carried. This item was forwarded to the Main Committee for action.

Item Number: NB17-0401 NBIC Location: Part 4 No Attachment

General Description: Valve drain plug recommendations for shipping.

Task Group: (PM) K. Beise, M. Brodeur, R.McCaffrey

Meeting Action: No progress made. R. McCaffrey added to task group.

Item Number: NB 17-0402 NBIC Location: Part 4 No Attachment

General Description: Review Part 4 Index.

Task Group: A. Cox (PM), S. Irvin, K. Beise, K. Simmons

Meeting Action: No progress. A. Cox added to task group.

Item Number: NB17-0403 NBIC Location: Part 4 No Attachment

General Description: Review Part 4 for including new T/O requirements.

Task Group: (PM) K. Simmons, D. McHugh, A. Cox, D. Marek

Meeting Action: No progress. A. Cox and D. Marek added to task group.

Item Number: 17-115 NBIC Location: Part 4, Section 2 No Attachment

General Description: Complete rewrite of Section 2 combining common requirements into a general requirements section for all pressure relief devices and look at combining with 2.4.3, 2.4.4.

Task Group: A. Renaldo (PM), D. McHugh, D. Marek

Meeting Action: A task group was formed to work on this item. Item 17-124 was closed with no action and combined with this item.

Item Number: 17-116 NBIC Location: Part 4, 2.2.1 a) and Part 1, 2.9.1 a) Attachment C

General Description: Add provision allowing power operated valves. Paragraph 2.2.1 b) Delete this paragraph

Task Group: None assigned.

Meeting Action: Mr. Beirne presented a proposal. A motion was made and seconded to accept the proposal. After discussion, a vote was taken and the motion carried unanimously. This item was forwarded to the Main Committee for action.

Item Number: 17-117 NBIC Location: Part 4, 2.2.1 g) and Part 1, 2.9.1 g) No Attachment

General Description: clarify what "properly vented" means

Task Group: R. McCaffrey (PM), M. Brodeur

Meeting Action: A task group was formed to work on this item.

Item Number: 17-118 NBIC Location: Part 4, 2.2.4 c) and Part 1, 2.9.1.3 c) No Attachment

General Description: Provide metric equivalent and possibly express conversion as formula instead of paragraph.

Task Group: B. Nutter (PM)

Meeting Action: A task group was formed to work on this item.

Item Number: 17-119 NBIC Location: Part 4, 2.2.5 and Part 1, 2.9.1.4 No Attachment

General Description: States pressure setting may exceed 10% range. Clarify by how much.

Task Group: T. Patel (PM), D. Marek

Meeting Action: A task group was formed to work on this item.

Item Number: 17-120 NBIC Location: Part 4, 2.2.10 d) and Part 1, 2.9.6 d) No Attachment

General Description: Add Changeover valve definition in glossary and remove definition from text.

Task Group: None assigned.

Meeting Action: Mr. Beirne presented a proposal. A motion was made and seconded to accept the proposal. After discussion, a revision was made to the proposal and will be sent back to the SG PRD for letter ballot.

Item Number: 17-121 NBIC Location: Part 4, 2.2.10 e), h) and Part 1 2.9.6 e),h) Attachment D

General Description: e) Language needs cleaned up. h) delete "so located or piped as to be carried clear from running boards or platforms."

Task Group: None assigned.

Meeting Action: Mr. Beirne presented a proposal. A motion was made and seconded to accept the proposal. After discussion and minor revision to proposal, a vote was taken and the motion carried unanimously with the exception on one negative (Cox). This item was forwarded to the Main Committee for action.

Item Number: 17-122 NBIC Location: Part 4, 2.3.6 g) and Part 2, 2.2.12.7 f) No Attachment

General Description: Clean up last sentence of main paragraph. Possibly break into two paragraphs to consider hazards at the discharge and hazards along discharge piping

Task Group: T. Patel (PM), B. Nutter, K. Beise

Meeting Action: A task group was formed to work on this item.

Item Number: 17-123 NBIC Location: Part 4, 2.3.6 h) Attachment E

General Description: Clarify what is suitable

Task Group: None assigned.

Meeting Action: A motion was made and seconded to delete the word "suitable" in per the attached proposal. After discussion, a vote was taken and the motion carried unanimously. This item was forwarded to the Main Committee for action.

Item Number: 17-124 NBIC Location: Part 4, 2.4.1.6 and Part 1, 3.9.1.6 No Attachment

General Description: look at combining with 2.4.3, 2.4.4

Task Group: None assigned.

Meeting Action: A motion was made and seconded to close this item with no action and combine this item with 17-115. After discussion, a vote was taken and the motion carried unanimously. This item was forwarded to the Main Committee for action.

Item Number: 17-125 NBIC Location: Part 4, 2.4.2 and Part 1, 3.9.2 Attachment F

General Description: Delete last sentence "The inlet opening shall have an inside diameter equal to or greater than the seat diameter". This is a manufacturing requirement and the inspector has no way of verifying this after installation.

Task Group: None assigned.

Meeting Action: Mr. Beirne presented a proposal. A motion was made and seconded to accept the proposal. After discussion, a vote was taken and the motion carried unanimously. This item was forwarded to the Main Committee for action.

Item Number: 17-126 NBIC Location: Part 4, 2.4.2 and Part 1, 3.9.2 No Attachment

General Description: Determination of the valve capacity using the maximum output method needs to be described or delete reference.

Task Group: D. Marek (PM), J. Ball

Meeting Action: A task group was formed to work on this item.

Item Number: 17-127 NBIC Location: Part 4, 2.4.4.1 and Part 1, 3.9.4.1 Attachment G

General Description: rewrite to state "Temperature and pressure relief valves shall be installed by either the manufacturer or the equipment installer before a water heater is placed in operation."

Task Group: None assigned.

Meeting Action: Mr. Beirne presented a proposal. A motion was made and seconded to accept the proposal. After discussion, a vote was taken and the motion carried unanimously. This item was forwarded to the Main Committee for action.

Item Number: 17-128 NBIC Location: Part 4, 2.4.4.3 and Part 1, 3.9.4.3 No Attachment

General Description: allows Y-base to be used while 2.4.1.6 a) prohibits. This appears to be a conflict.

Task Group: B. Nutter (PM), S. Irvin

Meeting Action: A task group was formed to work on this item.

Item Number: 17-129 NBIC Location: Part 4, 2.5.3 a), and Part 1, 4.5.3 a) No Attachment

General Description: should allow installation of PRD in upstream piping to be consistent with Section VIII

Task Group: None assigned.

Meeting Action: A motion was made and seconded to close this item with no action and combine this item with NB15-0315. After discussion, a vote was taken and the motion carried unanimously. This item was forwarded to the Main Committee for action.

Item Number: 17-130 NBIC Location: Part 4,2.5.6 f) and Part 1, 4.5.6 f) Attachment H

General Description: This could just point to safe point of discharge since we have a definition

Task Group: None assigned.

Meeting Action: Mr. Beirne presented a proposal. A motion was made and seconded to accept the proposal. After discussion, a vote was taken and the motion carried unanimously. This item was forwarded to the Main Committee for action.

Item Number: 17-131 NBIC Location: Part 4, 2.5.7 a) and Part 1, 4.7.3 a) No Attachment

General Description: Review overpressure protection requirements for hot water storage tanks that exceed 160 psi.

Task Group: J. Ball (PM)

Meeting Action: A task group was formed to work on this item.

Item Number: 17-132 NBIC Location: Part 4, 3.2.6 and Part 2, 2.5.8 No Attachment

General Description: Paragraph 3.2.6 can be put into tabular format.

Task Group: None assigned.

Meeting Action: Mr. Beirne presented a proposal as a progress report and indicated that it will be letter balloted after the meeting so that the SG members can have ample time to look at the proposal in detail and vote on it.

8. New Business

- None
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9. Presentations

None

10. Future Meetings

January 10, 2018 – New Orleans, LA July 18, 2018 – Columbus, Ohio

11. Adjournment

A motion was made, seconded, voted on, and unanimously passed to adjourn the meeting at approximately 2:45 PM.

Respectfully Submitted,

Thomas P. Beirne, P.E.

Secretary, NBIC Subcommittee Pressure Relief Devices

pc: D. Douin

D. Cook

B. Besserman