



THE  
NATIONAL  
BOARD  
OF BOILER AND  
PRESSURE VESSEL  
INSPECTORS

# NATIONAL BOARD SUBCOMMITTEE PRESSURE RELIEF DEVICES

## MINUTES

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Meeting of October 23<sup>rd</sup>, 2018  
WebEx Online Meeting

*These minutes are subject to approval and are for the committee use only.  
They are not to be duplicated or quoted for other than committee use.*

The National Board of Boiler & Pressure Vessel Inspectors  
1055 Crupper Avenue  
Columbus, Ohio 43229-1183  
Phone: (614)888-8320  
FAX: (614)847-1828

## 1. Call to Order (2 p.m. Eastern Time)

SC PRD Vice Chair Ms. Marianne Brodeur called the meeting to order at 2:10pm Eastern Daylight Time.

## 2. Introduction of Members and Visitors

The following people were present at the meeting:

Marianne Brodeur – Vice Chair

Kim Beise – Member

Stephen Irvin – Alternate for Alton Cox

Denis DeMichael – Member

Dan Marek – Member

David McHugh – Member

Brandon Nutter – Member

Thakor Patel – Member

Adam Renaldo – Member

Kevin Simmons – Member

Bob Donalson – Member (joined at 2:36pm)

Tom Beirne – Secretary

Bob Wielgoszinski – Guest

Gary Scribner – National Board Staff

Jonathan Ellis – National Board Staff

## 3. Adoption of the Agenda

The agenda was adopted as presented.

## 4. Public Review Comments

Item Number: PR18-0203	NBIC Location: Part 2, 2.6, 2.7, 2.8, S14.2.6	Attachment Page 1
<b>General Description:</b> (Items NB17-0403, 18-70, 18-71, 18-72) Is there a compelling reason why the wording in Part 2, 2.6.3.4 q) needs to be substantially different from that found in Part 3, 1.5.1 q)?		
<b>SC Meeting Action:</b> Discussion was held on the comment and the changes being proposed. The committee felt that the language of the T/O program should match the VR program, not the R program. A motion was made and seconded to propose Response 4: Rejected. The reason that will be provided is that the committee feels that the language of the T/O program should be more in line with the VR program, which is why it is different from the language referenced in the comment. This motion was unanimously approved.		

Item Number: PR18-0204	NBIC Location: Part 2, 2.6.4	Attachment Page 3
<b>General Description:</b> (Items NB17-0403, 18-70, 18-71, 18-72) Making sure that referenced certification marks, stamps, symbols, and designators are enclosed in quotation marks to be consistent with the rest of the NBIC.		
<b>SC Meeting Action:</b> Discussion was held on the comment and the changes being proposed. The committee determined that the changes are editorial, and a motion was made and seconded to propose		

Response 1: Accepted, Changes are Incorporated. The motion was passed unanimously.

**Item Number: PR18-0205**      **NBIC Location: Part 2, S14.2 a) 4)**      **Attachment Page 5**

**General Description:** Insert “the” directly before the words “Quality Department”.

**SC Meeting Action:** Discussion was held on the comment and the changes being proposed. The committee determined that the changes are editorial, and a motion was made and seconded to propose Response 1: Accepted, Changes are Incorporated. The motion was passed unanimously.

**Item Number: PR18-0208**      **NBIC Location: Part 2, 4**      **Attachment Page 10**

**General Description:** In regards to NB17-0403, 18-70, 18-71, and 18-72, the T/O program should only be included in Part 4 of the NBIC.

**SC Meeting Action:** Discussion was held on the comment. Mr. Gary Scribner clarified that the T/O program is not an in-service inspection activity, so it should not be included in Part 2. A motion was made and seconded to propose Response 1: Accepted, Changes are Incorporated. The change incorporated is that any T/O text that was approved for inclusion in Part 2 in the 2019 draft edition of the NBIC will be removed. The motion was approved unanimously.

**Item Number: PR18-0401**      **NBIC Location: Part 4, 1.4**      **Attachment Page 12**

**General Description:** Should in-service be hyphenated or not (editorial).

**SC Meeting Action:** Discussion was held on the comment and the changes being proposed. An initial motion was made to accept the changes as presented. The committee discussed whether or not an item should be opened to address how in-service is written in the NBIC because it could affect technical aspects of the book. The committee agreed that this seemed to be the best solution. The initial motion was voted down and a new motion was made and seconded to propose Response 2: Accept in Principle, New Business Item Opened. The motion was approved unanimously.

**Item Number: PR18-0402**      **NBIC Location: Part 4, 2.2.1 a), S6.1, S6.3, Part 1, 2.9.1 a)**      **Attachment Page 15**

**General Description:** Change “Power Operated” to “Power Actuated” in referenced paragraphs.

**SC Meeting Action:** Discussion was held on the comment and the changes being proposed. A motion was made and seconded to propose Response 1: Accepted, Changes are Incorporated. The motion was unanimously approved.

**Item Number: PR18-0403**      **NBIC Location: Part 4, S6.4 b) 2)**      **Attachment Page 22**

**General Description:** Specify “Authorized Nuclear Inspection Agency” instead of “Authorized Inspection Agency” in the referenced paragraph

**SC Meeting Action:** Discussion was held on the comment and the changes being proposed. A motion was made and seconded to propose Response 1: Accepted, Changes are Incorporated. The motion was unanimously approved.

## 5. Future Meetings

January 14-17, 2019 – San Antonio, TX

July 15-18, 2019 – Kansas City, MO

## **6. Adjournment**

A motion was made, seconded, and approved to adjourn the meeting at 3:26pm Eastern Daylight Time.

Respectfully submitted,

*Jonathan Ellis*

Jonathan Ellis

NBIC Secretary

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National Board Inspection Code  
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2019 Draft Edition**

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**Comments Must be Received No Later Than: October 15, 2018**

*Instructions: If unable to submit electronically, please print this form and fax or mail. Print or type clearly.*

Date: Sep. 10, 2018

Commenter Name: Alex Garbolevsky

Commenter Address: Hartford Steam Boiler  
One State St., 8th Flr., Hartford, CT 06102-5024

Commenter Phone: (860) 722-5098

Commenter Fax: none

Commenter Email: alex\_garbolevsky@hsb.com

Section/Subsection Referenced: Part 2, 2.6, 2.7, 28. S14 2.6 (Part 4, 1.4, 3.3, 3.4, 3.5, 4.1, 4.2, 4.7.4, S7)

Comment/Recommendation: Proposed Solution: ☐ New Text ☒ Revise Text ☐ Delete Text

This relates to NB17-0403, 18-70, 18-71, and 18-72.

Comment: See Part 2, 2.6.3.4 q). Is there any compelling reason why this wording needs to be substantially different from that found in Part 3 1.5.1 q)?:

"Any forms referenced in the manual shall be included. The form may be a part of the referencing document or included as an appendix. For clarity, the forms may be completed and identified as examples. The name and accepted abbreviations of the "R" Certificate Holder shall be included in the manual."

Source: ☐ Own Experience/Idea ☒ Other Source/Article/Code/Standard NBIC Part 3, 1.5.1 q)

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Commenter No. Issued: \_\_\_\_\_

Project Committee Referred To: \_\_\_\_\_

Comment No. Issued: \_\_\_\_\_

\_\_\_\_\_

1.PR18-0203 Reject comment. This language is consistent with current language in VR Program in Part 4 4.5.4p)

A.Affirmative 9/13 ( 69%)

B.Negative 0/13 ( 0%)

C.Abstain 0/13 ( 0%)

D.Not Voting 0/13 ( 0%)

No Answer 4/13 ( 31%)

A B C D

	A	B	C	D
Gary L. Scribner				
Dan Marek		X		
Adam Renaldo		X		
Thakor Patel		X		
Stephen Irvin		X		
Kevin Simmons		X		
Tom Beirne				
Bob Wielgoszinski				
David McHugh		X		
Kim Beise		X		
Denis DeMichael		X		
Marianne Brodeur		X		
Bob Donalson				

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Date: Sep. 10, 2018

Commenter Name: Alex Garbolevsky

Commenter Address: Hartford Steam Boiler  
One State St., 8th Flr., Hartford, CT 06102-5024

Commenter Phone: (860) 722-5098

Commenter Fax: none

Commenter Email: alex\_garbolevsky@hsb.com

Section/Subsection Referenced: Part 2, 2.6.4 (and elsewhere)

Comment/Recommendation: Proposed Solution: ☐ New Text ☒ Revise Text ☐ Delete Text

This relates to NB17-0403, 18-70, 18-71, and 18-72.

Editorial Comment: Proposed revisions should be text searched to ensure that referenced Certification Marks, stamps, symbols and designators (such as "T/O", "R", "UV", "NR", etc.) are enclosed in quotation marks to be consistent with the style used throughout the NBIC.

Source: ☐ Own Experience/Idea ☒ Other Source/Article/Code/Standard NBIC Parts 1 - 4

**Submit Form To:** Jonathan Ellis, NBIC Secretary, The National Board of Boiler & Pressure Vessel Inspectors, 1055 Crupper Avenue, Columbus, OH 43229, email: [jellis@nationalboard.org](mailto:jellis@nationalboard.org)

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Project Committee Referred To: \_\_\_\_\_

Comment No. Issued: \_\_\_\_\_

\_\_\_\_\_



1.PR18-0204 Accepted, changes are incorporated

A.Affirmative 9/13 ( 69%)

B.Negative 0/13 ( 0%)

C.Abstaining 0/13 ( 0%)

D.Not Voting 0/13 ( 0%)

No Answer 4/13 ( 31%)

A B C D

	A	B	C	D
Gary L. Scribner				
Dan Marek	X			
Adam Renaldo	X			
Thakor Patel	X			
Stephen Irvin	X			
Kevin Simmons	X			
Tom Beirne				
Bob Wielgoszinski				
David McHugh	X			
Kim Beise	X			
Denis DeMichael	X			
Marianne Brodeur				
Bob Donalson	X			

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Date: Sep. 10, 2018

Commenter Name: Alex Garbolevsky

Commenter Address: Hartford Steam Boiler  
One State St., 8th Flr., Hartford, CT 06102-5024

Commenter Phone: (860) 722-5098

Commenter Fax: none

Commenter Email: alex\_garbolevsky@hsb.com

Section/Subsection Referenced: Part 2 / Part 4, S14.2 a) 4)

Comment/Recommendation: Proposed Solution: ☐ New Text ☒ Revise Text ☐ Delete Text

Editorial Comment: Insert "the" directly before the words "Quality Department".

Source: ☒ Own Experience/Idea ☐ Other Source/Article/Code/Standard

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Project Committee Referred To: \_\_\_\_\_

Comment No. Issued: \_\_\_\_\_

\_\_\_\_\_

~~1) Name of responsible organization;~~

~~2) Date of test;~~

~~3) Set Pressure; and~~

~~4) Identification, such as "Test Only."~~

~~b) A "Test Only" nameplate is also recommended when periodic testing has been performed, even when no adjustments have been made, for the purpose of identifying the date the valve was tested.~~

~~e) The existing repair nameplates, if applicable, shall not be removed during such testing.~~ [TB4]

## **SUPPLEMENT 7**


### **RECOMMENDED PROCEDURES FOR TEST ONLY OF PRESSURE RELIEF VALVES**

#### **S7.1 INTRODUCTION**

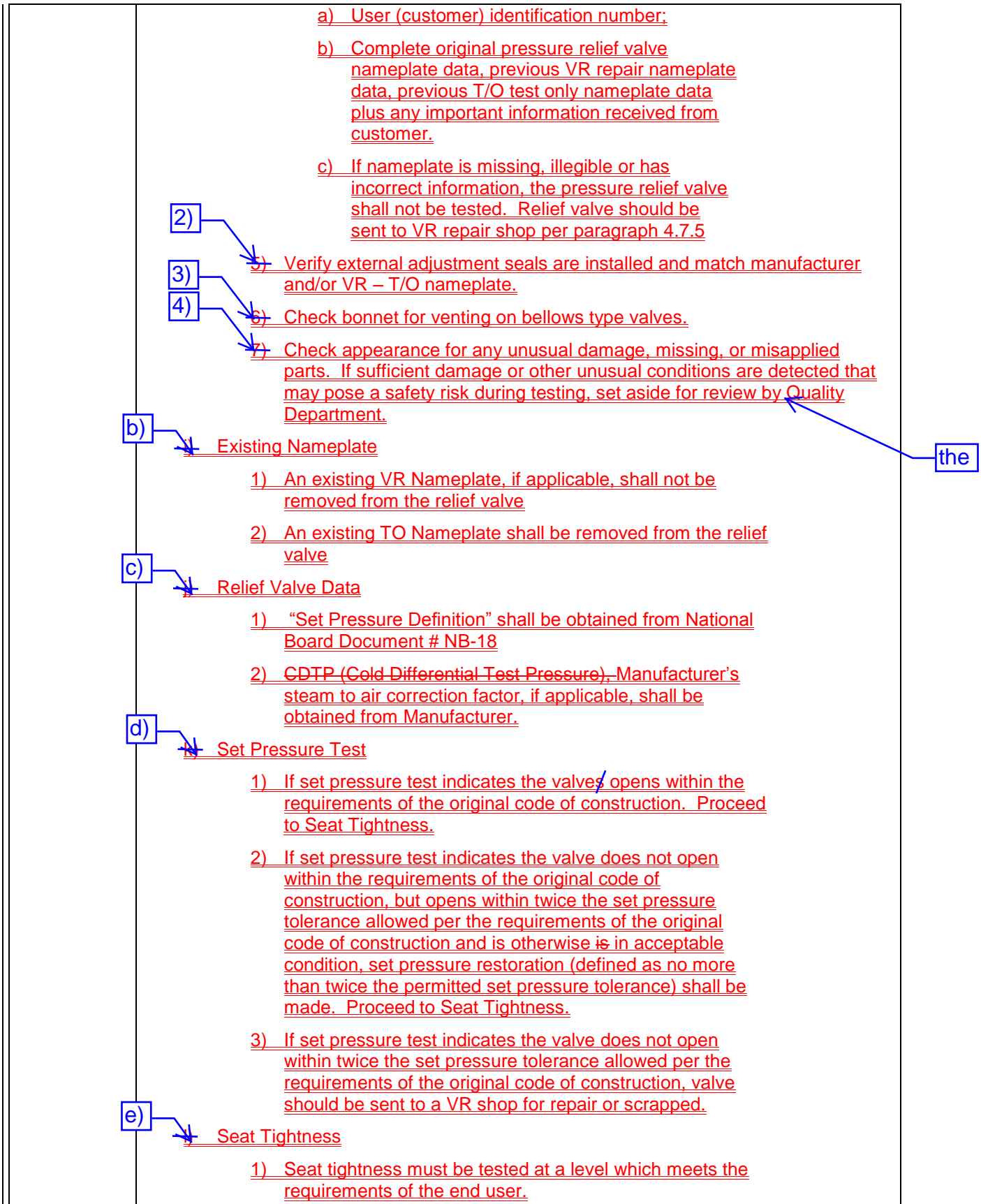
- a) It is essential that the test only organization establish basic, specific procedures for the testing of pressure relief valves. The purpose of these recommended procedures is to provide the test only organization with guidelines for this important aspect of valve testing. It is realized that there are many types of valves and conditions under which they are tested and, for this reason, the specific items in these recommended procedures may not apply, or they may be inadequate for each of those types or for the detailed test procedures that may be required for each valve.
- b) If the valve is to be bench tested, ensure that all sources of pressure have been removed from the valve prior to removal from service. If the valve is to be field tested using system pressure, ensure that all sources of pressure are under the control of the person performing the test.
- c) S7.2 contains recommended procedures for the test only of spring-loaded and pilot operated pressure relief valves.

#### **S7.2 PRESSURE RELIEF VALVES**

Prior to field testing of a relief valve using system pressure or removal for bench testing, ensure that all sources of pressure have been removed from the valve.

- a)  h) Visual inspection

- 1) This information is to be recorded



f)

Sealing

- 1) After completion of set pressure test, set pressure restoration (if applicable) and seat tightness testing, all external adjustments shall be sealed in accordance with the original code of construction with a seal providing a means of identification of the organization performing the set pressure test.

g)

T/O Nameplate

- 1) The tester shall prepare a T/O nameplate for each valve tested.
- 2) The nameplate shall, as a minimum, meet the requirements of 3.5.2 a)
- 3) Nameplate shall be installed independent of sealing used for external adjustments and/or VR nameplate attachment.
- 4) Nameplate shall receive a safety seal providing a means of identification of the organization performing the set pressure testing.

1.PR18-0205 Accepted, changes are incorporated

A.Affirmative 10/13 ( 77%)

B.Negative 0/13 ( 0%)

C.Abstaining 0/13 ( 0%)

D.Not Voting 0/13 ( 0%)

No Answer 3/13 ( 23%)

A B C D

	A	B	C	D
Gary L. Scribner				
Dan Marek		X		
Adam Renaldo		X		
Thakor Patel		X		
Stephen Irvin		X		
Kevin Simmons		X		
Tom Beirne				
Bob Wielgoszinski				
David McHugh		X		
Kim Beise		X		
Denis DeMichael		X		
Marianne Brodeur		X		
Bob Donalson		X		

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*Instructions: If unable to submit electronically, please print this form and fax or mail. Print or type clearly.*

Date: September 24, 2018

Commenter Name: Gary L. Scribner

Commenter Address: 1055 Crupper Ave.  
Columbus, Oh 43229

Commenter Phone: 614-888-8320

Commenter Fax: 614-847-1828

Commenter Email: gscribner@nationalboard.org

Section/Subsection Referenced: Part 2, 2.6, 2.7, 2.8, S14

Comment/Recommendation: *Proposed Solution:* ☐ New Text ☐ Revise Text ☒ Delete Text

The proposed wording under item NB17-0403, 18-70, 18-71, & 18-72 dealing with the T/O Accreditation Program is not an inservice inspection activity, so this working should be limited to NBIC Part 4 and should not be included in NBIC Part 2.

Source: ☒ Own Experience/Idea ☐ Other Source/Article/Code/Standard

**Submit Form To:** Jonathan Ellis, NBIC Secretary, The National Board of Boiler & Pressure Vessel Inspectors, 1055 Crupper Avenue, Columbus, OH 43229, email: [jellis@nationalboard.org](mailto:jellis@nationalboard.org)

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Project Committee Referred To: \_\_\_\_\_

Comment No. Issued: \_\_\_\_\_

\_\_\_\_\_

1.PR18-0208 Accepted, changes are incorporated

A.Affirmative 9/13 ( 69%)

B.Negative 0/13 ( 0%)

C.Abstaining 0/13 ( 0%)

D.Not Voting 0/13 ( 0%)

No Answer 4/13 ( 31%)

A B C D

	A	B	C	D
Gary L. Scribner				
Dan Marek				
Adam Renaldo		X		
Thakor Patel		X		
Stephen Irvin		X		
Kevin Simmons		X		
Tom Beirne				
Bob Wielgoszinski				
David McHugh		X		
Kim Beise		X		
Denis DeMichael		X		
Marianne Brodeur		X		
Bob Donalson		X		



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Date: Sep. 12, 2018

Commenter Name: Alex Garbolevsky

Commenter Address: Hartford Steam Boiler  
One State St., 8th Flr., Hartford, CT 06102-5024

Commenter Phone: (860) 722-5098

Commenter Fax: none

Commenter Email: alex\_garbolevsky@hsb.com

Section/Subsection Referenced: Part 4, 1.4, etc.

Comment/Recommendation: Proposed Solution: ☐ New Text ☒ Revise Text ☐ Delete Text

Observation: There is no consistency as to whether in-service should be hyphenated (such as in Part 4) or not (most uses in Parts 1, 2 3 and on website, such as when describing "T/O").

Source: ☒ Own Experience/Idea ☐ Other Source/Article/Code/Standard

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Project Committee Referred To: \_\_\_\_\_

Comment No. Issued: \_\_\_\_\_

\_\_\_\_\_

1.PR18-0401 Accepted, staff/editors to fix.

A.Affirmative 1/13 ( 8%)

B.Negative 9/13 ( 69%)

C.Abstaining 0/13 ( 0%)

D.Not Voting 0/13 ( 0%)

No Answer 3/13 ( 23%)

A B C D

	A	B	C	D
Gary L. Scribner				
Dan Marek		X		
Adam Renaldo		X		
Thakor Patel	X			
Stephen Irvin		X		
Kevin Simmons		X		
Tom Beirne				
Bob Wielgoszinski				
David McHugh		X		
Kim Beise		X		
Denis DeMichael		X		
Marianne Brodeur		X		
Bob Donalson		X		

1.PR18-0401 Accept in principle, new business item opened

A.Affirmative 10/13 ( 77%)

B.Negative 0/13 ( 0%)

C.Abstaining 0/13 ( 0%)

D.Not Voting 0/13 ( 0%)

No Answer 3/13 ( 23%)

A B C D

	A	B	C	D
Gary L. Scribner				
Dan Marek	X			
Adam Renaldo	X			
Thakor Patel	X			
Stephen Irvin	X			
Kevin Simmons	X			
Tom Beirne				
Bob Wielgoszinski				
David McHugh	X			
Kim Beise	X			
Denis DeMichael	X			
Marianne Brodeur	X			
Bob Donalson	X			

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Date: 9/21/18

Commenter Name: Thomas P. Beirne

Commenter Address: 7437 Pingue Dr.  
Worthington, OH 43085

Commenter Phone: 614-431-3239

Commenter Fax: 614-848-3474

Commenter Email: tbeirne@nationalboard.org

Section/Subsection Referenced: Part 4, 2.2.1 a), S6.1, S6.3, Part 1, 2.9.1a)

Comment/Recommendation: *Proposed Solution:* ☐ New Text ☒ Revise Text ☐ Delete Text

Referenced paragraphs contain the term "Power Operated" pressure relief valves. Propose revising text to say "Power Actuated" pressure relief valves to coincide with ASME new construction terminology.

Source: ☐ Own Experience/Idea ☒ Other Source/Article/Code/Standard ASME Section I, III

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Project Committee Referred To: \_\_\_\_\_

Comment No. Issued: \_\_\_\_\_

\_\_\_\_\_

	room must still be considered.
NB16-2801 Part 1, 1.6.8	<b>1.6.8 CHIMNEY OR STACK</b> Chimneys or stacks shall be installed in accordance with jurisdictional <del>and environmental</del> requirements, manufacturer's recommendations, and/or industry standards, as applicable.
NB16-0101 Part 1, 1.6.9	<u><b>1.6.9 Carbon Monoxide (CO) Detector/Alarm</b></u> <u>The owner or user shall install a carbon monoxide (CO) detector/alarm in equipment rooms where fuel fired boilers and/or fuel fired pressure vessels are located in accordance with the authority having Jurisdiction.</u>
<b>NB16-2803</b> Part 1, 2.5.3.2 f)	<u>f) When existing boiler installations do not include remote emergency shutdown switches, it is not required that these switches be retroactively installed unless required by the Jurisdiction</u>
<b>NB16-2804</b> Part 1, 2.7.5 p)	p) Boiler blowoff systems <del>shall</del> <u>should</u> be constructed in accordance with the Guide for Blowoff Vessels (NB-27): which can be found on the National Board website, <a href="http://www.nationalboard.org">www.nationalboard.org</a> .
<b>17-116</b> Part 1, 2.9.1	<b>2.9.1 GENERAL REQUIREMENTS</b> a) Only direct spring loaded, <del>pilot operated, or power operated</del> pressure relief valves <del>or pilot operated pressure relief valves</del> designed to relieve steam shall be used for steam service.  <del>b) Pressure relief valves are valves designed to relieve either steam or water, depending on the application.</del>  <del>eb)</del> Pressure relief valves shall be manufactured in accordance with a national or international standard.  <del>ed)</del> Deadweight or weighted-lever pressure relief valves shall not be used.  <del>ed)</del> For high temperature water boilers, pressure relief valves shall have a closed bonnet, and valve bodies shall not be constructed of cast iron.  <del>fe)</del> Pressure relief valves with an inlet connection greater than NPS 3 (DN 80) and used for pressure greater than 15 psig (100 kPa), shall have a flanged inlet connection or a welding-end inlet connection. The dimensions of flanges subjected to boiler pressure shall conform to the applicable standards.  <del>gf)</del> When a pressure relief valve is exposed to outdoor elements that may affect operation of the valve, the valve may be shielded with a cover. The cover shall be properly vented and arranged to permit servicing and normal operation of the valve.
17-117 Part 1, 2.9.1 g)	g) When a pressure relief valve is exposed to outdoor elements that may affect operation of the valve, the valve may be shielded with a cover. The cover shall be <del>properly</del> vented and arranged to permit servicing and normal operation of the valve.

actuated

	<div style="text-align: right; color: red; font-weight: bold; font-size: 1.2em;">For Committee Use Only</div> <div style="border: 1px solid red; padding: 2px; float: right; text-align: left;">             NB14-0602C              Proposal              07/17/2018              Page 1 of 3           </div> <div style="clear: both;"></div> <div style="display: flex; justify-content: space-between;"> <div style="width: 48%;"> <p><b>Pressure Relief Devices</b>            (1.6.9), (4.4.1), (4.4.2), (5.12.6.1), (S4.15),            (S4.17.6), (S6.18.1)  <span style="border: 1px solid red; padding: 2px;">(Organization), (Foreword), (1.1), (1.6.2)</span></p> <p><b>Pressure-Retaining</b>            (Foreword), (Introduction), (1.1), (1.2), (1.3), (1.3.1),            (1.4), (1.4.1), (1.5.1), (2.1), (2.2), (2.5.2), (2.5.3),            (2.5.3.2), (2.5.3.4), (2.5.3.5), (3.1), (3.2.1), (3.2.6),            (3.2.7), (3.3.1), (3.3.2), (3.3.3), (3.3.4.3), (3.3.4.8),            (3.4.1), (3.4.2), (3.4.4), (4.1), (4.2), (4.4), (4.4.1),            (4.4.2), (5.1), (5.2.1), (5.2.2), (5.4), (5.5.2), (5.7.1),            (5.7.2), (5.7.3), (5.7.5), (5.8.1), (5.9), (5.12.4.1),            (S1.1.3), (S1.1.3.1), (S2.7), (S2.7.1), (S2.13),            (S3.2), (S3.3), (S4.1), (S4.7), (S4.10), (S4.12),            (S4.15), (S4.16.1), (S4.16.3), (S4.16.4), (S4.17.1),            (S4.17.3), (S4.17.5), (S4.18.2.6), (S5.3), (S5.3.1),            (S5.4), (S5.5), (S5.6.1), (S5.6.2), (S5.7.1), (S5.7.2),            (S6.15), (S6.15.1), (S6.17.1), (S6.17.3), (S6.17.5),            (S6.18), (S6.18.1), (S7.4)</p> <p><b>Pressure Testing</b>  <b>Alterations</b>            (1.3.2), (3.4.1), (3.4.2), (4.4.2), (S3.4),            (S4.17.6), (S6.8.1)  <b>FRP Vessels</b>            (S4.13), (S4.15), (S4.18.2.4), (S4.18.2.5)  <b>Parts</b>            (4.5.4)  <b>Repairs</b>            (1.3.2), (3.2.2), (4.4.1), (S2.8), (S3.2),            (S3.5.4), (S4.13), (S4.15), (S4.18.2.4),            (S4.18.2.5), (S6.8.1), (S6.18.1)</p> <p><b>Pressure Vessels</b>            (Foreword), (2.5.3), (2.5.3.2), (2.5.3.4), (3.3.3),            (3.3.5), (3.3.5.1), (3.3.5.2), (3.4.4), (3.4.5), (3.4.5.1),            (5.2.2), (5.12.4.1), (S3.2), (S4.6), (S4.16.3),            (S4.17.3), (S4.17.4), (S4.17.5), (S6.9), (S6.11),            (S7.1), (9.1)</p> <p><b>Plastic</b>            (1.5.1), (5.7.5), (5.12.4.1), (S4.1), (S4.2), (S4.17.5),            (S4.18.2), (S4.18.2.7)</p> <p><b>Procedure Qualification</b>            (2.2.2), (2.2.4), (2.5.3.2), (2.5.3.3), (2.5.3.4),            (2.5.3.6), (S3.2), (S4.10.1), (S4.10.3), (S6.9.2),            (S6.9.4), (S8.4)</p> <p><b>Provisions for Expansion/Support</b>            (S1.2.3), (S1.2.5), (S1.2.6.3), (S1.2.10), (S2.13)</p> </div> <div style="width: 48%;"> <p><b>Q</b></p> <p><b>Qualifications</b>  <b>Engineer</b>            (3.3.5.2), (3.4.5.1), (S4.6), (S4.16.3),            (S4.17.3), (S4.17.4)  <b>FRP Performance</b>            (S4.10.2)  <b>Inspector</b>            (S4.2)  <b>Lift Assist</b>            (4.5.3)  <b>NDE</b>            (1.6.6.2), (1.6.7.2), (S2.11), (4.2), (S4.12),            (S6.11)  <b>Secondary Bond</b>            (S4.10.2), (S4.10.3), (S4.10.5)  <b>Welding</b>            (1.5.1), (2.2.2), (2.2.3), (2.2.4), (2.2.6),            (2.2.6.1), (2.4), (2.5.3), (2.5.3.2), (2.5.3.3),            (2.5.3.4), (2.5.3.5), (2.5.3.6), (S2.9),            (S6.9.3), (S6.9.4), (S6.9.6), (8.4)</p> <p><b>Quality Records</b>            (1.6.7.2)</p> <p><b>Quality Systems</b>            (Introduction), (1.4.1), (1.4.2), (1.5), (1.5.1),            (1.6.7.2), (2.2.6.1), (3.3.2), (4.2), (5.2), (5.5.2),            (S3.5.5), (S4.16.4), (S6.11)</p> <p><b>R</b></p> <p><b>"R" Certificate Holder</b>            (1.2), (1.3.1), (1.6.1), (2.2.2), (2.2.4), (2.2.5),            (2.2.6.1), (3.2.1), (3.2.2), (3.2.4), (3.3.2), (3.3.4.9),            (3.4.1), (3.4.2), (3.4.3), (3.4.5.1), (4.2), (4.4), (5.2),            (5.2.1), (5.2.2), (5.4), (5.5), (5.6), (5.7.1), (5.7.3),            (5.12.4.1), (S1.1.1), (S3.2), (S4.2), (S4.7), (S7.6)</p> <p><b>"R" Symbol Stamp</b>            (1.4.1), (1.4.2), (1.5.1), (3.2.2), (3.3.4.8), (5.5.3),            (5.5.5), (5.7.5), (5.10), (S2.6), (S3.2), (S3.4), (S4.9),            (S4.14.3)</p> <p><b>Radiography</b>            (1.6.6.2), (1.6.7.2), (2.5.3), (S1.2.9.4), (S1.2.9.5),            (S1.2.10), (S1.2.11.2), (S1.2.11.5), (S2.13.9.2),            (S2.13.9.3), (S2.13.10.3), (S2.13.11.2), (S2.13.11.3),            (S2.13.14.1), (S5.6.2), (S7.4)</p> <p><b>Records Review</b>            (3.4.1), (S2.12), (S3.2), (S3.3), (S4.10.3), (S4.17.5),            (S6.5), (S7.4)</p> </div> </div> <div style="display: flex; justify-content: space-between; margin-top: 20px;"> <div></div> <div style="border: 1px solid black; padding: 2px;">actuated</div> <div style="border: 1px solid black; padding: 2px;">SECTION 11</div> <div style="border: 1px solid black; padding: 2px;">262</div> </div>
17-116	<b>2.2.1 GENERAL REQUIREMENTS</b> a) Only direct spring loaded, <del>pilot operated, or power operated</del> pressure relief valves or

<p><b>Part 4, 2.2.1</b></p>	<p><del>pilot operated pressure relief valves</del> designed to relieve steam shall be used for steam service.</p> <p><del>b) Pressure relief valves are valves designed to relieve either steam or water, depending on the application.</del></p> <p><del>eb)</del> Pressure relief valves shall be manufactured in accordance with a national or international standard.</p> <p><del>ec)</del> Deadweight or weighted-lever pressure relief valves shall not be used.</p> <p><del>ed)</del> For high temperature water boilers, pressure relief valves shall have a closed bonnet, and valve bodies shall not be constructed of cast iron.</p> <p><del>fe)</del> Pressure relief valves with an inlet connection greater than NPS 3 (DN 80) and used for pressure greater than 15 psig (100 kPa), shall have a flanged inlet connection or a welding-end inlet connection. The dimensions of flanges subjected to boiler pressure shall conform to the applicable standards.</p> <p><del>gf)</del> When a pressure relief valve is exposed to outdoor elements that may affect operation of the valve, the valve may be shielded with a cover. The cover shall be properly vented and arranged to permit servicing and normal operation of the valve.</p>
<p>17-117 Part 4, 2.2.1 g) (Part 1, 2.9.1)</p>	<p>g) When a pressure relief valve is exposed to outdoor elements that may affect operation of the valve, the valve may be shielded with a cover. The cover shall be <del>properly</del> vented and arranged to permit servicing and normal operation of the valve.</p>
<p><b>17-123</b> <b>Part 4, 2.3.6</b> <b>h)</b></p>	<p>h) A <del>suitable</del> condenser that will condense all the vapors discharged from the pressure relief valve may be used in lieu of piping the vapors to the atmosphere.</p>
<p>17-126 Part 4, 2.4.2 (Part 1, 3.9.2)</p>	<p><b>Part 4: 2.4.2 PRESSURE RELIEF VALVE REQUIREMENTS FOR STEAM HEATING BOILERS</b></p> <p>a) Pressure relief valves shall be manufactured in accordance with a national or international standard.</p> <p>b) Each steam boiler shall have one or more National Board capacity certified pressure relief valves of the spring pop type adjusted and sealed to discharge at a pressure not to exceed 15 psig (100 kPa).</p> <p>c) No pressure relief valve for a steam boiler shall be smaller than NPS 1/2 (DN 15). No pressure relief valve shall be larger than NPS 4 (DN 100). The inlet opening shall have an inside diameter equal to, or greater than, the seat diameter.</p> <p>d) The minimum valve capacity in lbs/hr (kg/hr) shall be <del>the greater of that determined by dividing the maximum Btu/hr (W) output at the boiler nozzle obtained by the firing of any fuel for which the unit is installed by 1,000 Btu/hr/lb (645 W/kg), or shall</del></p>

	<p><u>b) Prior to removal, repair, or disassembly of a pressure relief valve ensure that all sources of pressure have been removed.</u></p> <p><u>bc)</u> S4.2 contains recommended procedures for the repair of spring-loaded pressure relief valves, and S4.3 contains recommended procedures for the repair of pilot operated types of pressure relief valves. Information on packaging, shipping and transportation is included as S4.5.</p> <p><b>S4.2 SPRING-LOADED PRESSURE RELIEF VALVES</b></p> <p><del>Prior to removal of a valve from a system for a repair or any disassembly, ensure that all sources of pressure have been removed from the valve.</del></p> <p>a) Visual inspection as received</p> <ol style="list-style-type: none"> <li>1) This information is to be recorded: <ol style="list-style-type: none"> <li>a. Record user (customer) identification number;</li> <li>b. Complete original PRV nameplate data, previous repair nameplate data, plus any important information received from customer;</li> <li>c. Check external adjustment seals for warranty repair;</li> <li>d. Check bonnet for venting on bellows type valves; and</li> <li>e. Check appearance for any unusual damage, missing, or misapplied parts.</li> </ol> </li> <li>2) If sufficient damage or other unusual conditions are detected that may pose a safety risk during preliminary testing, then proceed directly to S4.2 c)</li> <li>3) Valves that are to be repaired in place proceed to S4.2 c) unless preliminary testing has been authorized by the owner.</li> </ol>
NB16-0603 Part 4, S6	<p><b>SUPPLEMENT 6</b></p> <p><b><u>PROCEDURES FOR REPAIRS TO ASME “NV” STAMPED PRESSURE RELIEF DEVICES OF NUCLEAR SAFETY RELATED PRESSURE RELIEF VALVES</u></b></p> <p><b><u>S6.1-INTRODUCTION SCOPE</u></b></p> <p><del>ASME Code “NV” Class 1, 2, or 3 stamped pressure relief devices, which have been</del></p>



actuated

~~capacity certified by the National Board, Nuclear safety related pressure relief valves and power operated pressure relief valves~~ may be repaired provided the following requirements are met. Valves being repaired under these provisions are intended to be those protecting the nuclear pressure boundary. Other pressure relief valves in the nuclear power plant (such as pressure relief valves on air compressors and auxiliary boilers) shall be repaired as required by the applicable Jurisdiction.

## **S6.2 DEFINITIONS**

**Safety Related** – As used in this supplement and when applied to nuclear power plants, safety related means a structure, system, or component or part thereof that affects its safety function necessary to assure:

- a) The integrity of the reactor coolant pressure boundary;
- b) The capability to shut down the reactor and maintain it in a safe shutdown condition; or
- c) The capability to prevent or mitigate the consequence of accidents which could result in potential offsite exposures.

## **S6.3 NUCLEAR SAFETY RELATED VALVE GROUPS**

These rules classify nuclear safety related pressure relief valves into three groups based upon the original code of construction and capacity certification status.

Group 1: ASME Section I and Section VIII pressure relief valves *accepted by the Jurisdiction for use* used in nuclear safety related service with National Board capacity certification.

Group 2: ASME Section III NV stamped Class 1, 2, or 3 pressure relief valves with National Board capacity certification.

Group 3: Pressure relief valves not addressed in Group 1 or Group 2. This group shall include pressure relief valves without National Board capacity certification and/or pressure relief valves constructed to codes or standards other than ASME (see NBIC Part 3, Category 3).

The term pressure relief valve includes power operated pressure relief valves. Replacement of rupture disks in rupture disk holders or in systems is not considered a repair activity under the scope of this supplement.

## **S6.42 ADMINISTRATIVE PROCEDURES**

- a) The repair organization shall ~~hold-obtain~~ a ~~valid~~ "VR" Certificate of Authorization ~~and stamp~~.

actuated

1.PR18-0402 Accepted, changes are incorporated

A.Affirmative 10/14 ( 71%)  
B.Negative 0/14 ( 0%)  
C.Abstaining 0/14 ( 0%)  
D.Not Voting 0/14 ( 0%)  
No Answer 4/14 ( 29%)

	A	B	C	D
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Gary L. Scribner				
Dan Marek		X		
Adam Renaldo		X		
Thakor Patel		X		
Stephen Irvin		X		
Kevin Simmons		X		
Tom Beirne				
Bob Wielgoszinski				
David McHugh				
Kim Beise		X		
David McHugh		X		
Denis DeMichael		X		
Marianne Brodeur		X		
Bob Donalson		X		

**National Board of Boiler and Pressure Vessel Inspectors  
National Board Inspection Code  
Submission of Public Review Comment  
2019 Draft Edition**

PLEASE SUBMIT ONLY ONE COMMENT/RECOMMENDATION PER PAGE  
Make additional copies as needed

**Comments Must be Received No Later Than: October 15, 2018**

*Instructions: If unable to submit electronically, please print this form and fax or mail. Print or type clearly.*

Date: 10/11/2018

Commenter Name: David V. Luetngen

Commenter Address: 3 Kristin Rd  
New Castle, DE 19720 United States

Commenter Phone: +1 31331 aiguy (313-312-4489)

Commenter Fax: 206-339-7985

Commenter Email: aiguy@live.com

Section/Subsection Referenced: NB 16-0603 Part 4, S6 S6.4 b) 2)

Comment/Recommendation: *Proposed Solution:* ☐ New Text ☒ Revise Text ☐ Delete Text

2) Have a contract or agreement with an Authorized Nuclear Inspection Agency that is qualified in accordance with the requirements of ASME QAI-1, Qualifications for Authorized Inspection to provide inspection of repaired nuclear pressure relief valves;

Source: ☐ Own Experience/Idea ☒ Other Source/Article/Code/Standard ASME Sect XI, QAI-1, NBIC Glossary

**Submit Form To:** Jonathan Ellis, NBIC Secretary, The National Board of Boiler & Pressure Vessel Inspectors, 1055 Crupper Avenue, Columbus, OH 43229, email: [jellis@nationalboard.org](mailto:jellis@nationalboard.org)

**NB Use Only**

Commenter No. Issued: \_\_\_\_\_

Project Committee Referred To: \_\_\_\_\_

Comment No. Issued: \_\_\_\_\_

\_\_\_\_\_

~~capacity certified by the National Board, Nuclear safety related pres~~  
~~power operated pressure relief valves~~ may be repaired provided the following  
requirements are met. ~~Valves being repaired under these provisions are intended to be~~  
~~those protecting the nuclear pressure boundary. Other pressure relief valves in the~~  
~~nuclear power plant (such as pressure relief valves on air compressors and auxiliary~~  
~~boilers) shall be repaired as required by the applicable Jurisdiction.~~

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- a) The integrity of the reactor coolant pressure boundary;
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Group 3: Pressure relief valves not addressed in Group 1 or Group 2. This group shall  
include pressure relief valves without National Board capacity certification and/or  
pressure relief valves constructed to codes or standards other than ASME (see NBIC Part  
3, Category 3).

The term pressure relief valve includes power operated pressure relief valves.  
Replacement of rupture disks in rupture disk holders or in systems is not considered a  
repair activity under the scope of this supplement.

## **S6.42 ADMINISTRATIVE PROCEDURES**

- a) The repair organization shall ~~hold-obtain~~ a ~~valid~~ "VR" Certificate of Authorization ~~and~~  
~~stamp.~~

	<p>b) The repair organization shall obtain a National Board “NR” <i>Certificate of Authorization</i> <del>and stamp</del>. The requirements for said certificate <del>and stamp</del> include, but <del>are is</del> not limited to the following. The repair organization shall:</p> <ol style="list-style-type: none"> <li>1) Maintain a documented quality assurance program that meets the applicable requirements of NBIC Part 3, 1.6. This program shall <del>also</del> <b>Nuclear</b> all the applicable requirements for the use of the “VR” stamp;</li> <li>2) Have a contract or agreement with an <u>Authorized</u> Inspection Agency <u>that is qualified in accordance with the requirements of ASME QAI-1, Qualifications for Authorized Inspection</u> to provide inspection of repaired <u>nuclear</u> <del>“NV” stamped</del> pressure relief <del>devices valves by inspectors who have been qualified in accordance with the requirements of ASME QAI-1, Qualifications for Authorized Inspection</del>;</li> <li>3) Successfully complete a survey of the quality <b>Nuclear</b> program and its implementation. This survey shall be conducted by representatives of the National Board, the Jurisdiction wherein the applicant’s repair facilities are located, and the applicant’s Authorized Inspection Agency. Further verification of such implementation by the survey team may not be necessary if the applicant holds a valid ASME “NV” certificate and can verify by documentation the capability of implementing the quality assurance program for repair of “NV” - stamped pressure relief <del>devices valves</del>, covered by the applicant’s ASME “NV” certificate.</li> </ol> <p>c) The application of the “NR” <i>Certificate of Authorization</i> and stamp shall clearly define the scope of intended activities with respect to the repair of <del>Section III, “NV” stamped nuclear</del> pressure relief <del>devices valves</del>.</p> <p>d) Revisions to the quality assurance program shall be acceptable to the Authorized Nuclear Inspector Supervisor and the National Board before being implemented.</p> <p>e) The scope of the “VR” <i>Certificate of Authorization</i> shall include repair of <del>“NV” stamped nuclear</del> pressure relief <del>devices valves</del> <u>(denoted on the VR Certificate as Section III)</u>.</p> <p>f) Verification testing of valves repaired by the applicant shall not be required provided such testing has been successfully completed under the applicant’s “VR” certification program <u>for the applicable test fluids</u>.</p> <p>g) A survey of the applicant for the “VR” <i>Certificate of Authorization</i> and endorsement of the repair of <del>“NV” stamped nuclear</del> pressure relief <del>devices valves</del> may be made concurrently.</p> <p>h) <b>S6.53 GENERAL RULES</b></p>
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1.PR18-0403 Accepted, changes are incorporated

A.Affirmative 10/14 ( 71%)

B.Negative 0/14 ( 0%)

C.Abstaining 0/14 ( 0%)

D.Not Voting 0/14 ( 0%)

No Answer 4/14 ( 29%)

A B C D

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Gary L. Scribner					
Dan Marek		X			
Adam Renaldo		X			
Thakor Patel		X			
Stephen Irvin		X			
Kevin Simmons		X			
Tom Beirne					
Bob Wielgoszinski					
David McHugh					
Kim Beise		X			
David McHugh		X			
Denis DeMichael		X			
Marianne Brodeur		X			
Bob Donalson		X			