Date Distributed: Jan 5, 2022

THE NATIONAL BOARD
OF BOILER AND PRESSURE VESSEL INSPECTORS

NATIONAL BOARD INSPECTION CODE TASK GROUP HISTORICAL BOILERS

AGENDA

Meeting of January 17th, 2022
San Diego, CA

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**
   8:00 AM Pacific Time. For those attending in person, the meeting will be held in Coronet on the third floor of the hotel.

2. **Introduction of Members and Visitors**

3. **Check for a Quorum**

4. **Awards/Special Recognition**

5. **Announcements**
   - The National Board will be hosting a reception on Wednesday evening from 5:30pm to 7:30pm at The Smoking Gun.
   - The National Board will be hosting breakfast and lunch on Thursday. Breakfast will be served from 7:00am to 8:00am, and lunch will be served from 11:30am to 12:30pm. Both meals will be served at the hotel in Le Fontainebleau.
   - A coffee station will be provided outside of the meeting rooms on each floor.

6. **Adoption of the Agenda**

7. **Approval of the Minutes of the July 12th, 2021 Meeting**
   The minutes are available for review on the National Board website, www.nationalboard.org.

8. **Review of Rosters (Attachment Page 1)**
   a. **Membership Reappointments**
   b. **Membership Nominations**
   c. **Officer Nominations**

9. Action Items

Item Number: 20-25	NBIC Location: Part 3, S2.13	No Attachment

General Description: Repair Procedure for Fire Boxes

Subgroup: SG Historical
Task Group: M. Wahl (PM), R. Forbes, T. Dillon, L. Moedinger & F. Johnson

Explanation of Need: In NBIC Part 3, S2.13.10.3, S2.13.11 do not define what to do at a riveted joint. On the tubesheet, or firedoor sheet, where it is flanged to rivet to the firebox, the repairs are silent on what to do at the riveted joint.

July 2021 Action:

PROGRESS REPORT: Mr. Seime addressed the TG regarding this item. Now that the item regarding this same topic has passed through TG Locomotive, SC R & A, and MC, the TG Historical needs to see how they want to proceed. The TG will work on this item to create a proposal for the January 2022 meeting. Mr. Moedinger also discussed the document passed through Locomotive in March 2021.

Item Number: 20-26	NBIC Location: Part 2, S2	No Attachment

General Description: Concern for Historical Boiler Inspections Nationwide

Subgroup: SG Historical
Task Group: T. Dillon (PM), R. Underwood, L. Moedinger, M. Wahl, D. Rupert, K. Anderson, M. Sansone, & J. Wolf

Explanation of Need: Currently Jurisdictions are not uniform in adoption of how and when inspections are performed.

July 2021 Action:

PROGRESS REPORT: Mr. Dillon showed a PowerPoint to discuss the need for this item. Mr. Anderson stated he would like to see the owners of steam tractors show proof of insurance and all previous work that has been performed of all tractors they have, a "pedigree" of sorts. Many TG members agree there needs to be some accountability amongst the owners; however, it was also discussed that they need to be cautious about the direction of where the TG goes with this topic as far as the NBIC is concerned. Mr. Dillon discussed, and would like to discuss further, with the National Board to see if they can get access to the Historical Supplement for reference for schools/classes/training. The group discussed covering specifically NBIC Supplement 2 in the some of the courses the National Board currently offer. The group discussed using some of the TG Historical members to put together a training program/class for the National Board to offer Inspectors. The group will keep this item open for further discussion and hopefully they can create a proposal as a starting point to potentially put something in the book for training inspectors for Inspections on Historical Boilers. Mr. Sansone will work with the task group of this item, and then he will contact the National Board to begin the discussion of creating a new class for Inspections on Historical Boilers. Mr. Sansone will also bring up this topic at the next BOT meeting for discussion.

Item Number: 21-03	NBIC Location: Part 2, S2	No Attachment

General Description: Inspection of through stays and diagonal stays (submitted by David Rose)

Subgroup: Historical
Task Group: D. Rose (PM), R. Bryce, R. Forbes, C. Jowett

Explanation of Need: The code is silent on the inspection of through stays and diagonal stays. Additionally, new repair methods are available from ASME that can be incorporated.

July 2021 Action:

PROGRESS REPORT: Mr. Rose, who submitted this item, stated he is still working on a proposal to present to the group.

Item Number: 21-09	NBIC Location: Part 3, S2	No Attachment

General Description: Incorporate new repair methods for through and diagonal stays (submitted by David Rose)

Subgroup: Historical
Task Group: D. Rose (PM), R. Bryce, R. Forbes, C. Jowett

Explanation of Need: The code is silent on the inspection of through stays and diagonal stays. Additionally, new repair methods are available from ASME that can be incorporated.

July 2021 Action:

PROGRESS REPORT: Mr. Rose, who submitted this item, stated he is still working on a proposal to present to the group.

Item Number: 21-34	NBIC Location: Part 2, S2	No Attachment

General Description: Working Pressure Calculations for Curved Stayed Surfaces

Subgroup: Historical
Task Group: Mike Wahl (PM), R. Bryce, & T. Dillon

Background: In January 2021, Dr. Bryce initiated the conversation with the group for this topic. He is proposing the group open an item to address working pressure calculations for curved stayed surfaces. After discussion, a task group was formed

July 2021 Action:

PROGRESS REPORT: Dr. Bryce is working on a proposal and will hopefully have something to present in January 2022.

10. New Items:

Item Number: 21-48	NBIC Location: Part 2, S2.6.3.4	Attachment Page 2

General Description: Correction of references in S2.6.3.4 a) 1) and 2).

Subgroup: Historical
Task Group: None assigned

Background: the sentences in S2.6.2 (b&c) were re-lettered sometime between 2013 and 2019 and the references back to them in S2.6.3.4 were not changed at the same time. This also applies to S2.6.3.4 a) 1 & 2. This correction may be needed in other sentences, but I have not identified the need yet.

January 2022 Action:

Item Number: 21-66	NBIC Location: Part 2, S2.7.3.2	Attachment Page 3

General Description: Correct Water Treatment

Subgroup: Historical
Task Group: None assigned

Background: As a jurisdiction we would like to define a process for treating the water that is used in historical boilers. Historical boiler owners in the province of Manitoba are stating that corrosion inhibitors do not have a noticeable capacity for slowing the effects of corrosive compounds in non-treated water. The request for this item is triggered from a discussion with historical boiler owners in the province of Manitoba. The owners are requesting a clarification for what the expectations are for treating the water used in the historical boilers.

January 2022 Action:

Item Number: 21-78	NBIC Location: Part 2, S2.13.9.5 e)	Attachment Page 4

General Description: Alternative Weld Joint For Historical Boiler Barrel Replacement

Subgroup: Historical
Task Group: None assigned

Background: Historical boilers were manufactured with riveted joints, however in many cases it's more practical to use welded joints when restoring historical boilers. However, ASME Section I does not allow fillet welded lap joints when connecting replacement barrels to the wrapper sheet. The strength of a double fillet welded lap joint has proven to be equal, if not greater in strength than riveted joint designs and this proposal will introduce this type of joint as an alternative to riveted lap joints.

January 2022 Action:

11. Future Meetings

- July 2022 – TBD
- January 2023 – TBD

12. Adjournment

Respectfully submitted,

Jodi Metzmaier
Task Group Historical Secretary

Seime	Trevor	Jurisdictional Authorities	Chair	07/30/2024	Details
Dillon	Tom	General Interest	Vice Chair	07/30/2024	Details
Metzmaier	Jodi		Secretary	12/30/2099	Details
Anderson	Kevin	Users	Member	01/30/2024	Details
Getter	Jim	Manufacturers	Member	01/30/2024	Details
Johnson	Frank	Users	Member	01/30/2024	Details
Jowett	Chris	National Board Certificate Holders	Member	09/29/2023	Details
Kinney	Donald	Jurisdictional Authorities	Member	01/30/2024	Details
Moore	Kathy	National Board Certificate Holders	Member	10/30/2022	Details
Rose	David	Users	Member	07/30/2022	Details
Rupert	Dennis	General Interest	Member	01/30/2024	Details
Sansone	Matthew	Jurisdictional Authorities	Member	01/30/2024	Details
Underwood	Robert	Authorized Inspection Agencies	Member	08/30/2022	Details
Wahl	Mike	General Interest	Member	01/30/2024	Details
Wolf	Jon	Authorized Inspection Agencies	Member	07/30/2023	Details

PROPOSED REVISION OR ADDITION

Item No.

A 21-48

Subject/Title

Correction of references in S2.6.3.4 a) 1) and 2).

NBIC Location

Part: Inspection; Section: S2.6.3.4; Paragraph: a) & 1) & 2)

Project Manager and Task Group

Source (Name/Email)

John Cady / john.cady@state.mn.us

Statement of Need

the sentences in S2.6.2 (b&c) were re-lettered sometime between 2013 and 2019 and the references back to them in S2.6.3.4 were not changed at the same time. This also applies to S2.6.3.4 a) 1 & 2. This correction may be needed in other sentences but I have not identified the need yet.

Background Information

The grid sizes referred to in S2.6.3.4 are in S2.6.2 b & c and not c & d.

Existing Text	Proposed Text
The remaining thickness may be averaged over an area not exceeding the UT-grid size specified in S2.6.2 c) or S2.6.2.d).	The remaining thickness may be averaged over an area not exceeding the UT-grid size specified in S2.6.2 b) or S2.6.2 c).

	VOTE:						
COMMITTEE	Approved	Disapproved	Abstained	Not Voting	Passed	Failed	Date

PROPOSED REVISION OR ADDITION

Item No.

A 21-66

Subject/Title

Correct Water Treatment

NBIC Location

Part: Inspection; Section: Supplement 2; Paragraph: S2.7.3.2 c)1)c.

Project Manager and Task Group

Source (Name/Email)

Mohamed Elsayed / mohamed.elsayed@gov.mb.ca

Statement of Need

As a jurisdiction we would like to define a process for treating the water that is used in historical boilers. Historical boiler owners in the province of Manitoba are stating that corrosion inhibitors do not have a noticeable capacity for slowing the effects of corrosive compounds in non treated water.

Background Information

The request for this interpretation is triggered from a discussion with historical boiler owners in the province of Manitoba. The owners are requesting a clarification for what the expectations are for treating the water used in the historical boilers.

Existing Text	Proposed Text
N/A	Please provide a definition/requirements for treated water used in historical boilers.

	VOTE:						
COMMITTEE	Approved	Disapproved	Abstained	Not Voting	Passed	Failed	Date

PROPOSED REVISION OR ADDITION

Item No.

A 21-78

Subject/Title

Alternative Weld Joint For Historical Boiler Barrel Replacement

NBIC Location

Part: Repairs and Alterations; Section: Supplement 2; Paragraph: S2.13.9.5(e)

Project Manager and Task Group

Source (Name/Email)

Robert Underwood / robert_underwood@hsb.com

Statement of Need

This proposal would introduce double welded lap joint connections of the barrel to wrapper sheet in lieu of riveted joints. It is not practical in many cases for repair firms to connect this joint by riveting.

Background Information

Historical boilers were manufactured with riveted joints, however in many cases it's more practical to use welded joints when restoring historical boilers. However, ASME Section I does not allow fillet welded lap joints when connecting replacement barrels to the wrapper sheet. The strength of a double fillet welded lap joint has proven to be equal, if not greater in strength than riveted joint designs and this proposal will introduce this type of joint as an alternative to riveted lap joints.

Existing Text	Proposed Text
	1) Double fillet welded lap joints connecting the replacement barrel to the wrapper sheet with a thickness not over 5/8 in. (16 mm) may be used as an alternative to double-riveted lap joint connections. (See NBIC Part 3, Figure S2.13.9.5)

	VOTE:						
COMMITTEE	Approved	Disapproved	Abstained	Not Voting	Passed	Failed	Date