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# NATIONAL BOARD INSPECTION CODE TASK GROUP HISTORICAL BOILERS

# AGENDA

Meeting of January 8<sup>th</sup>, 2024 San Antonio, TX

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

The Chair will call the meeting to order at 8:00 a.m. Central Time. For those attending in person, the meeting will be held in Madero A at the hotel.

# 2. Introduction of Members and Visitors

3. Check for a Quorum

# 4. Awards/Special Recognition

### 5. Announcements

- This meeting marks the end of Cycle C for the 2025 NBIC edition. The committees will have until the end of the July 2024 NBIC meeting to approve items for inclusion in the 2025 NBIC.
- The National Board will be hosting a reception on Wednesday evening from 5:30 p.m. to 7:30 p.m. in Veramendi (fourth level of the hotel).
- The National Board will be hosting breakfast and lunch on Thursday in Veramendi for those attending the Main Committee meeting. Breakfast will be served from 7:00 a.m. to 8:00 a.m. and lunch will be served from 11:30 a.m. to 12:30 p.m.
- Meeting schedules, meeting room layouts, and other helpful information can be found on the National Board website under the NBIC tab → NBIC Meeting Information.
- Remember to add any attachments that you'd like to show during the meeting (proposals, reference documents, power points, etc.) to the NBIC file share site (nbfileshare.org) **prior** to the meeting.
  - Note that access to the NBIC file share site is limited to committee members only.
  - ALL power point attachments/presentations <u>must be sent to the NBIC Secretary</u> <u>prior to the meeting</u> for approval.
  - Contact Jonathan Ellis (*nbicsecretary@nbbi.org*) for any questions regarding NBIC file share access.
- When possible, please submit proposals in Word format showing "strike through/underline". Project Managers: please ensure any proposals containing text from the 2021 NBIC are updated to contain text from the 2023 NBIC.
- If you'd like to request a new Interpretation or Action item, this should be done on the National Board Business Center.
  - Anyone, member or not, can request a new item.
- As a reminder, anyone who would like to become a member of a group or committee:
  - Should attend at least two meetings prior to being put on the agenda for membership consideration. The nominee will be on the agenda for voting during their third meeting.
  - The nominee must submit the formal request along with their resume to the NBIC Secretary **PRIOR TO** the meeting. <u>*nbicsecretary@nbbi.org*</u>
  - If needed, we can also create a ballot for voting on a new member between meetings.
- Thank you to everyone who registered online for this meeting. The online registration is very helpful for planning our reception, meals, room set up, etc. Please continue to use the online registration for each meeting. If you are here in person, and did not register, please visit the National Board website to register now. Registering will make sure we have an accurate count for the reception, breakfast, and lunch. It is also a good way to make sure we have the most up-to-date contact information.

### 6. Adoption of the Agenda

# 7. Approval of the Minutes of the July 10, 2023, Meeting

The minutes can be found on the NBIC Committee Information page under the Inspection Code tab on NBBI.org.

### 8. Review of Rosters

### a. Membership Reappointments

The following memberships are set to expire prior to the July 2024 meeting: Mr. Kevin Anderson, Mr. Jim Getter, Mr. Frank Johnson, Mr. Dennis Rupert, Mr. Matt Sansone, and Mr. Mike Wahl.

- **b.** Membership Nominations None.
- **c.** Officer Nominations None.

### 9. Interpretations

Item Number: 23-80	NBIC Location: Part 2, S2.6.1 a)	Attachment Page 2			
General Description: The Held Pressure for Hydro-static Testing of Heritage Boilers.					
<b>Subgroup:</b> SG Historical <b>Task Group:</b> None assigned.					
<b>Explanation of Need:</b> There has been issues in our Jurisdiction of inspectors interpreting that the boiler shall hold hydro static pressure for 10 minutes without the aid of a pump to maintain pressure. Therefore, any weep in valve packing, hand holes, gauge glass gaskets, etc. would be cause for failure of the hydro test.					
January 2024 Action:					
<ul><li>Explanation of Need: There has been issues in our Jurisdiction of inspectors interpreting that the boiler shall hold hydro static pressure for 10 minutes without the aid of a pump to maintain pressure. Therefore, any weep in valve packing, hand holes, gauge glass gaskets, etc. would be cause for failure of the hydro test.</li><li>January 2024 Action:</li></ul>					

### 10. Action Items

Item Number: 20-25	NBIC Location: Part 3, S2.13	No Attachment			
General Description: Repair Procedure for Fire Boxes					
<b>Subgroup:</b> SG Historical <b>Task Group:</b> M. Wahl (PM), R.	Forbes, T. Dillon, L. Moedinger, C. Jowett,	& 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 2023 Action:

Mr. Wahl was not present for the meeting, and no one else had any information on this item to discuss. The group stated they needed to have some more information on this item by the January 2024 meeting or it may be closed. Mr. Moedinger stated there was information updated in Part 3 for the locomotive section that should be reviewed and duplicated in the historical supplement. The task group will review the locomotive information and try to have more information for the January 2024 meeting.

Item Number: 23-62

# NBIC Location: Part 3, S2

No Attachment

General Description: Reusing pressure retaining items under alteration

Subgroup: SG Historical

Task Group: C. Jowett (PM), F. Johnson, and J. Smith

**Explanation of Need:** Addition to book explaining how a pressure retaining item can be reused on a historical boiler under the guidelines of an alteration.

**July 2023 Meeting Discussion:** Mr. Seime presented this item to the TG. He stated Mr. Joel Amato had asked him the question, "When the scope of the repair is to remove the dome and completely replace the boiler, and reattach the dome, what code of construction should be used for the new barrel and fire box? And is this a repair or alteration?" The group discussed the questions, and all agreed this would be an alteration. Mr. Seime stated he would like to open an action item and have Mr. Jowett be the PM for the item. He wants the task group to have a proposal for the January 2024 meeting. Mr. Galanes made a statement saying they need to be careful to not interfere with the current definitions of "repair" and "alteration." Mr. Frank Johnson and Mr. Jeremy Smith will join Mr. Jowett on the task group. Mr. Jowett will open the new item on the NB business center. Mr. Dillon recommended using the word "pressure Part" or "existing pressure retaining item" instead of "dome."

January 2024 Action:

# 11. New Items

Item Number: 23-74	NBIC Location: Part 2, S2	No Attachment
General Description: Certific		

**Subgroup:** SG Historical **Task Group:** None assigned.

**Explanation of Need:** To discuss the possibility of requiring a certificate of compliance on all new fusible plugs on historical boilers.

January 2024 Action:

Item Number: 23-85

NBIC Location: Part 2, S2.14.7

**Attachment Page 3** 

General Description: Review paragraphs to replace with proper verbiage

**Subgroup:** SG Historical **Task Group:** None assigned.

**Explanation of Need:** There is some slang and second person (POV) verbiage throughout these paragraphs. Recommend rewording with proper terminology (such that it could be understood internationally) and changing point of view (e.g., changing "you're pulling water" to "water is being pulled"). Since I don't have the technical knowledge to know what is slang and what isn't, what I have proposed will still need to be reworded.

January 2024 Action:

### 12. Ongoing Discussion Items

# A. Concern for Historical Boiler Inspection Nationwide:

• July 2023 Meeting Discussion: Mr. Seime stated he does not have any information to report on this item at this time. He will discuss this with Mr. Sansone soon since he is now a member of the BOT.

# B. Having a Dialog regarding the publication Soot in the Flues, from the old iron man albums.

- July 2023 Meeting Discussion: Mr. Anderson brought this discussion item to the TG stating the old Iron Man albums always had a segment in each publication called Soot in the Flues. It talked about problems and solutions for engineers and operators. Engineers and Engines have agreed to allow the Historical TG and NBIC to use this as a communication device bi-monthly. He feels this is a solution needed to get the message out that owners and operators have a voice. E&E also agreed to help the TG put it together. Mr. Ponce suggested putting a link on our website. He also recommended doing an article in the National Board Bulletin on Historical Boilers. Mr. Seime stated him, or Mr. Anderson will contact Mr. Joel Amato to let him know they want to move forward with some kind of line of communication. A group of Mr. Anderson, Mr. Dillon, and Mr. Rupert was put together to come up with a plan and readdress this in January. They will then work with the NB staff to figure out how to move forward.
- C. Discussion of a potential new item regarding pressure relief valves on historical boilers.
  - July 2023 Meeting Discussion: Mr. Seime stated to the TG that Part 4 changed "recommending safety valves be replaced every 5 years" to "safety valves will be replaced every 5 years." Mr. Wahl and Mr. Wolf have been assigned to open an action item and create some wording to try and include something into the 2025 edition. Mr. Rupert and Mr. Anderson will also join the Task Group.

# 13. Future Meetings

- July 15-18, 2024 The Brown Hotel in Louisville, KY
- January 2025 TBD

### 14. Adjournment

Respectfully submitted,

Jool Metymain

Jodi Metzmaier, Historical Task Group Secretary

# Task Group Historical Boilers

Last Name	First Name	Interest Category	Role	Exp. Date
Seime	Trevor	Jurisdictional Authorities	Chair	07/30/2024
Dillon	Tom	General Interest	Vice Chair	07/30/2024
Metzmaier	Jodi		Secretary	12/30/2099
Anderson	Kevin	Users	Member	01/30/2024
Carlson	Michael	Jurisdictional Authorities	Member	07/30/2025
Ferreira	Jonathan	Authorized Inspection Agencies	Member	01/30/2026
Getter	Jim	Manufacturers	Member	01/30/2024
Horton	Michael	General Interest	Member	01/30/2025
Johnson	Frank	Users	Member	01/30/2024
Jowett	Chris	National Board Certificate Holders	Member	08/21/2026
Kinney	Donald	Jurisdictional Authorities	Member	01/30/2024
Rose	David	Users	Member	07/30/2025
Rupert	Dennis	General Interest	Member	01/30/2024
Sansone	Matthew	Jurisdictional Authorities	Member	01/30/2024
Smith	Jeremy	General Interest	Member	08/21/2026
Wahl	Mike	General Interest	Member	01/30/2024
Wolf	Jon	Authorized Inspection Agencies	Member	08/21/2026



# THE NATIONAL BOARD OF BOILER AND PRESSURE VESSEL INSPECTORS

# **PROPOSED INTERPRETATION**

Item No.

23-80

### Subject/Title

The Held Pressure for Hydro-static Testing of Heritage Boilers.

### Project Manager and Task Group

### Source (Name/Email)

Robin Forbes / robin.a.forbes@outlook.com

### Statement of Need

There has been issues in our Jurisdiction of inspectors interpreting that the boiler shall hold hydro static pressure for 10 minutes without the aid of a pump to maintain pressure. Therefore any weep in valve packing, hand holes, gauge glass gaskets, etc. would be cause for failure of the hydro test.

### Background Information

There was a situation where it took the owner of a traction engine 8 days to complete a hydro. Any drop in the pressure over the 10 minutes and the inspector would fail the boiler. He would reference the above clause from the NBIC as evidence the boiler must hold hydro static pressure (unaided) for 10 minutes.

### Proposed Question

S2.6.1.a states a hydro static pressure between MAWP and 1.25 MAWP shall be "held for a minimum of 10 minutes or as required to preform a complete visual inspection" is the intent that the boiler shall hold a set hydro static pressure for a minimum of 10 minutes, without the aid of a pump to maintain the pressure? Or, is it permissible to use a pump to maintain the hydro static pressure for a minimum of 10 minutes?

### Proposed Reply

Given that the wording is "held" and not "hold" the use of a pump to maintain the hydro static pressure is permissible. The intent that the pressure be held a minimum of 10 minutes is to allow time for leaks to present themselves along seams, tubes, stay bolts, etc.

Committee's Question 1

Committee's Reply 1

Rationale

**Committee's Question 2** 

Committee's Reply 2

Rationale



# THE NATIONAL BOARD OF BOILER AND PRESSURE VESSEL INSPECTORS

# PROPOSED REVISION OR ADDITION

Item No.

A 23-85

### Subject/Title

Review paragraphs to replace with proper verbiage

### NBIC Location

Part: Inspection; Section: Supplement 2; Paragraph: S2.14.7

Project Manager and Task Group

Source (Name/Email)

Michelle Vance / mvance@nationalboard.org

### Statement of Need

There is some slang and second person (POV) verbiage throughout these paragraphs. Recommend rewording with proper terminology (such that it could be understood internationally) and changing point of view (e.g., changing "you're pulling water" to "water is being pulled"). Since I don't have the technical knowledge to know what is slang and what isn't, what I have proposed will still need to be reworded.

### **Background Information**

N/A?

### Existing Text

a) A foaming boiler is usually caused by dirty or impure water in the boiler. Oils, detergent, etc., are the biggest problems and have no business being on the waterside of a boiler. A good rule of thumb is, "If you wouldn't drink it, don't put it in your boiler." Foaming can be especially bad because you have no way of discerning your water level. The water glass and try-cocks will appear full. Foaming is usually really intensified with a heavy fire and a heavy engine load. Reduce or stop your engine load and reduce your fire until it settles down, steam down, wash out your boiler, and refill it with clean water. The first indication of a foaming or priming boiler is usually a "wet stack" and a discernable difference in the exhaust sound. Open cylinder cocks immediately and close throttle and determine your water level. b) Priming is similar to foaming; you're pulling water into your engine. This is especially bad because it can wash the oil from valves and cylinders and risk severe damage to the engine. Priming is caused more from carrying too-high a water level. It also occurs from working steam while ascending and descending hills. Know the machine you are operating, and what the safe water level is. c) If an engine starts priming (it will show a wet stack), open cylinder cocks, reduce throttle, get engine to level area, and determine the water level. If possible, safely blowdown boiler to proper water level. Ensure no bystanders are close-by for safety.

#### Proposed Text

a) A foaming boiler is usually caused by impure water in the boiler. Oils, detergent, etc., cause many issues and should not be on the waterside of a boiler. Furthermore, when foaming occurs, the water level cannot be discerned. The water glass and try-cocks will appear full. Foaming is usually intensified with a heavy fire and a heavy engine load. Reduce or stop the engine load and reduce the fire until it settles down; then steam down, wash out the boiler, and refill it with clean water. The first indication of a foaming or priming boiler is usually a "wet stack" and a discernable difference in the exhaust sound. Open cylinder cocks immediately, close throttle, and determine the water level. b) Priming is similar to foaming; water is being pulled into the engine. This is especially bad because it can wash the oil from valves and cylinders, risking severe damage to the engine. Priming is caused more from carrying too high a water level. It also occurs from working steam while ascending and descending hills. One should be knowledgeable of the machine they are operating, including the proper water level. c) If an engine starts priming (it will show a wet stack), open cylinder cocks, reduce throttle, get engine to level area, and determine the water level. If possible, safely blow down boiler to the proper water level. Ensure no bystanders are close