



THE NATIONAL BOARD
OF BOILER AND PRESSURE VESSEL INSPECTORS

Date Distributed: July 29, 2025

NATIONAL BOARD INSPECTION CODE SUBCOMMITTEE INSPECTION

MINUTES

Meeting of July 9, 2025
Cincinnati, OH

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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

1. Call to Order

Mr. Mark Horbaczewski, Chair of the Inspection Subcommittee (SC), called the meeting to order at 8:02 a.m. Eastern Standard Time, in Madisonville A on the 4th floor of the hotel.

Mr Horbaczewski stated that since Vice Chair, Mr. Darrell Graf, was not in attendance, Mr. James Roberts will stand in as Vice Chair for this meeting.

2. Introduction of Members and Visitors

All members and visitors in person and online stated their name and their company. All members and visitors are noted on the attendance sheets. (**Attachment Pages 1-2**)

3. Check for a Quorum (51% - 13 of 24 needed)

With 21 of 24 members in attendance, both in person and online, a quorum was established.

4. Awards/Special Recognition - None

5. Announcements

Ms. Metzmaier gave announcements to the SC. (**Attachment Page 3**)

6. Adoption of the Agenda

- Update Locomotive Items 24-78 to include the previous locomotive meeting action.
- Add Interpretation Item 25-39 (Replacement of Stamped Data)
- Add item 25-43 (regarding NB-4, 6, & 7 Forms)

7. Approval of the Minutes of the January 2025 Meeting - The minutes from the January 2025 meeting can be found on the NBIC Committee information page on the National Board's website, nbbi.org.

A motion was made to approve the minutes from the January 2025 meeting. The motion was seconded and unanimously approved.

8. Review of Rosters

a. Membership Nominations

- **SUBGROUP:** Mr. Wil Griffith (AIA) and Mr. James Bell (General Interest) are interested in becoming members of SG Inspection.

Mr. Horbaczewski stated the two nominees were unanimously approved through the SG. A motion was made to recommend membership to the SG for both nominees. The motion was seconded and **unanimously approved.**

b. Membership Reappointments

- **SUBGROUP:** The following members are up for reappointment: Mr. Pat Polick and Mr. David Rose.

It was noted that Mr. Polick's reappointment was unanimously approved through the SG. A motion was made to reappoint Mr. Polick to the SG. The motion was seconded and **unanimously approved.**

Mr. Rose was not present at the meeting. An email will be sent to him to confirm he would like to be reappointed to SG. His reappointment will then be letter balloted (LB).

- **SUBCOMMITTEE:** The following members are up for reappointment: Mr. James Clark, Mr. Pat Polick, and Mr. David Rose.

Mr. Polick and Mr. Clark confirmed they would like to be reappointed to the SC. A motion was made to reappoint both members. The motion was seconded and **unanimously approved.**

Mr. Rose was not present at the meeting. An email will be sent to him to confirm he would like to be reappointed to the SC. His reappointment will then be letter balloted to the SC.

c. **Officer Appointments - None**

9. **Open Items Related to Inspection**

a. **2/3 Task Group Items**

- i. **22-06 - General Description:** Part 2 task group to review Part 3 Item 21-53 (see below)
 - Mr. Brent Ray stated the Part 2/3 TG had no action on this item.
- ii. **23-08 - General Description:** Part 2 task group to review Part 3 Item 21-67 (note: item 21-67 had a proposal that passed through SG/SC R&A and MC in January 2024.)
 - Mr. Ray stated the Part 2/3 TG has no action on this item.
- iii. **24-28 - General Description:** Applying PWHT to previously "as welded" item
 - There is proposal for this item that will be presented to the SC.

b. **PRD**

- i. **Item 24-91** – Require means to prevent safety valve discharge piping blockage for LCDSV (Part 4)
 - No action needed to be taken by the SC.

c. **R&A**

- i. **Item 21-53** – Post repair inspection of weld repairs to CSEF steels. (P. Gilston as PM) Mr. Horbaczewski stated this item is still being worked on.
- ii. **Item 24-18** – Definition of Controlled Fill (P. Gilston as PM) NOTE: This is a definition that will be in all parts, and all parts must agree. Mr. Horbaczewski stated this item is still being worked on.

10. **Interpretations**

Item Number: 25-02	NBIC Location: 2023 NBIC, Part 2, 4.4.7.3 and 4.5.3 b)	No Attachment
General Description: Overriding Part 2 Inspection Requirements with RBI Program		
Subgroup: Inspection		
Task Group: D. Graf (PM), J. Beauregard, J. Sowinski, J. Mangas, L. Burton, B. Ray		
Submitted by: Riley Collins		
Explanation of Need: There needs to be some clarity on whether an RBI program has the ability to override some of the inspection requirements listed in Part 2 as long as all jurisdictional requirements are met.		
July 2025 Meeting Action: Progress Report – A task group was created in the SG meeting.		

Item Number: 25-34	NBIC Location: 2023 NBIC, Part 2, 2.3.6.2 b) 2) a. 3.	No Attachment
General Description: Interpretation request into the NBBI for the NB-23 2023 paragraph 2.3.6.2		
Subgroup: Inspection		
Task Group: None assigned.		
Submitted by: Ari Ben Swartz		
Explanation of Need: Numerous air receivers are found to be less than the required wall thickness.		
July 2025 Meeting Action: Progress Report – A task group was created in the SG meeting.		

Item Number: 25-39	NBIC Location: Part 2, Forms	No Attachment
General Description: Replacement of Stamped Data		
Subgroup: Inspection		
Task Group: None assigned.		
Submitted by: G. Scribner		
Explanation of Need: ASME Certificate Holders who are successor organizations, are confusing the requirements of ASME CA-1, section 5.4 which allows the original manufacturer or a successor organization to reapply the ASME Single Certification Mark and designator to allow them to put the name of the successor organization on the nameplate.		
July 2025 Meeting Action: Progress Report – A task group was created in the SG meeting.		

11. Action Items

a. TG FRP Items

Item Number: NB16-1402	NBIC Location: Part 2, New Supplement	No Attachment
General Description: Life extension for high pressure FRP vessels above 20 years		
Subgroup: FRP		
Task Group: M. Gorman (PM)		
Update from the last FRP Meeting: TG FRP approved a proposal for this item at their April 2025 meeting.		
July 2025 Meeting Action: After review of the proposal, the SC chose to send the proposal to LB to the SC for vote.		

b. TG Historical Items

Item Number: 23-85	NBIC Location: Part 2, S2.14.7	No Attachment
General Description: Review paragraphs to replace with proper verbiage		
Subgroup: SG Historical		
Task Group: M. Wahl (PM), K. Anderson		
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.		
July 2025 Meeting Action: It was noted that a progress report was given during the Historical TG meeting.		

Item Number: 25-14	NBIC Location: Part 2, S2.10.	Attachment Page 4
General Description: UT Inspection of Boilers with Jackets		
Subgroup: SG Historical Task Group: M. Wahl (PM)		
Explanation of Need: Currently this information is not in the same location as the other UT requirements and needs to be updated for proper terminology.		
July 2025 Meeting Action: The proposal that passed through the Historical TG unanimously was presented to the SC. A motion was made to accept the proposal as presented. The motion was seconded and unanimously approved.		

c. TG Locomotive Items

Item Number: 24-78	NBIC Location: Part 2, S1.2.4.22	No Attachment
General Description: Minimum Washout Plug Thread Engagement		
Subgroup: Locomotive Task Group: B. Zeigler (PM), E. Armpriester, D. Domitrovich		
Explanation of Need: Text should be changed to clarify how minimum thread engagement is quantified.		
Update from the February 2025 Locomotive Meeting Action: The TG discussed this section of Part 2. During discussion the group reviewed the HeritageRail Association Guidance on Washout Plugs. The TG had a lot of discussion on this section and the topic in general. It was discussed if this section needs to be expanded on, at all. They were afraid if they keep adding to this section there may be no ending. Some members of the TG were fine with how this section is currently written and they do not believe it needs to be revised/expended. After a lot of discussion, a motion was made to close this item with no action. The motion was seconded and unanimously approved.		
July 2025 Meeting Action: The SC reviewed the action of the Locomotive task group from their February 2025 meeting. A motion was made to close this item with no action. The motion was seconded and unanimously approved.		

Item Number: 25-05	NBIC Location: Part 2, S1.2.4.22	Attachment Page 5
General Description: Washout plug engagement limits for locomotive boilers.		
Subgroup: Locomotive Task Group: L. Moedinger (PM)		
Explanation of Need: There is no current wording for washout plug engagement.		
July 2025 Meeting Action: The proposal that was unanimously approved through the Locomotive task group was reviewed by the SC. A motion was made to accept the proposal as presented. The motion was seconded and unanimously approved.		

Item Number: 25-16	NBIC Location: Part 2, S1.2.4.22	No Attachment
General Description: Washout plug obstructions		
Subgroup: Locomotive		
Task Group: T. Sposato (PM)		
Explanation of Need: Analyze possible issues.		
July 2025 Meeting Action: This item was opened after the Locomotive TG meeting in February 2025. No action has been taken by the TG.		

d. SG Inspection Items

Item Number: 23-81	NBIC Location: Part 2, 4.4.3 b)	No Attachment
General Description: Evaluate Inspector responsibilities relating to 4.4.3 FFS		
Subgroup: Inspection		
Task Group: M. Horbaczewski (PM), V. Scarcella, J. Clark, B. Ray, J. Ferreira, J. Sowinski		
Submitted by: R. Underwood		
Explanation of Need: Currently, 4.4.3-b states the Inspector shall review the condition assessment methodology and ensure the inspection data and documentation are in accordance with Section 4. This proposal would redefine the role and responsibility of the Inspector.		
July 2025 Meeting Action: It was noted that a progress report was given in the SG meeting.		
Task Group: Add D. Fulford		

Item Number: 24-03	NBIC Location: Part 2, Supplement 6	No Attachment
General Description: Revise "Inspector" terminology and requirements in Supplement 6		
Subgroup: Inspection		
Task Group: J. Smith (PM) and R. Kennedy		
Submitted by: R. Underwood		
Explanation of Need: Part 2 Supplement 6 should be revised to align with Part 3, Suppl 6 and the DOT. A few references are S6.4.2 a), S6.4.2 c), S6.4.4, S6.4.5, S6.4.6, and S6.4.6.1. However, this may not be an all-inclusive list.		
July 2025 Meeting Action: It was noted that a progress report was given in the SG meeting.		

Item Number: 24-28	NBIC Location: Part 2, S9.9 b) 4)	Attachment Page 6
General Description: Applying PWHT to previously "as welded" item		
Subgroup: Inspection		
Task Group: Brent Ray, Paul Davis, Phil Gilston		
Submitted by: J. Swezy		
Explanation of Need: The NBIC clearly lists the application of PWHT to a PRI that was not previously PWHT by the original Manufacturer as an example of an alteration. I agree with that statement and believe it is appropriate to consider this to be an alteration. I do not under why the NBIC considers this as an acceptable alteration but does not provide its users with any guidance as to how they should address its implementation. It seems very clear to me that applying PWHT to such welds is rarely detrimental when properly applied and should not reduce their strength or toughness. If anything, it should prove helpful rather than harmful under properly considered application. Good engineering practice mandates that a carbon steel vessel undergoing a change to wet H2S service should receive PWHT to provide an improved resistance to hydrogen cracking corrosion. Failing to do so would be irresponsible. The NBIC rules for a change of service even mention this as a factor to consider in Part 2, Table S-9.4.		
July 2025 Meeting Action:		
Mr. Horbaczewski presented the proposal that was unanimously approved through the SG. After review of the proposal, a motion was made to accept the proposal as presented. The motion was seconded and unanimously approved.		

Item Number: 24-37	NBIC Location: Part 2, 2.2.10	No Attachment
General Description: Add language in the event boiler can't be secured at the time of inspection		
Subgroup: Inspection		
Task Group: T. Bolden (PM), J. Smith, B. Steinhart, D. Fulford, J. King, W. Hackworth, B. Ross		
Submitted by: V. Scarcella		
Explanation of Need: In some circumstances boilers cannot be shut down and a dead man switch is not allowed.		
July 2025 Meeting Action:		
Progress Report: this item is going to be sent to LB to SG.		

Item Number: 24-42	NBIC Location: Part 2, 2.4.1 and 2.4.4	No Attachment
General Description: Add language to NBIC Part 2 in regard to piping inspections		
Subgroup: Inspection		
Task Group: D. Graf (PM), K. Barkdoll, R. Kennedy, B. Wilson, J. Beauregard, W. Griffith, G. Kopp		
Submitted by: V. Scarcella		
Explanation of Need: Two fatal incidents resultant from radiator failure prompted an ask for these changes.		
July 2025 Meeting Action:		
It was noted that a progress report was given in the SG meeting.		

Item Number: 24-62	NBIC Location: Part 2, Section 2	No Attachment
General Description: Temporary Boiler Inspection		
Subgroup: Inspection		
Task Group: P. Pollick (PM), V. Newton, B. Ross, M. Horbaczewski, J. Mangus, J. Beauregard, M. Whitlock		
Submitted by: V. Scarcella		
Explanation of Need: No guidance for inspectors for temporary boiler inspections		
July 2025 Meeting Action: It was noted that a progress report was given in the SG meeting.		

Item Number: 24-75	NBIC Location: Part 2, Table 2.5.8	Attachment Page 7-8
General Description: NBIC Part II Review table 2.5.8, suggest changes to align with NBIC Part 4		
Subgroup: Inspection		
Task Group: J. Smith (PM), B. Steinhart, T. Bolden, L. Burton		
Submitted by: V. Scarcella		
Explanation of Need: Tim Baker and Tim Bolden raised needed changes to NBIC Part II in table 2.5.8, the table needs review and alignment with the table in Part 4 3.2.6		
July 2025 Meeting Action: The proposal that was unanimously approved through the SG was reviewed by the SC. A motion was made to accept the proposal as presented. The motion was seconded and unanimously approved.		

Item Number: 24-76	NBIC Location: Part 2, S7.9	No Attachment
General Description: Revision to Part 2, S7.9		
Subgroup: Inspection		
Task Group: T. Vandini (PM), D. Graf, J. Clark, C. Moultrie, L. Burton, M. Whitlock, P. Polick, J. Roberts		
Submitted by: James Roberts		
Explanation of Need: Currently commercially refurbishers can inspect pressure vessels per NBIC S7.8.1 through S7.8.5 and place back into service without any statement this inspection was completed and by who.		
July 2025 Meeting Action: It was noted that a progress report was given in the SG meeting.		

Item Number: 24-84	NBIC Location: Part 2, 2.3.6.10 and 2.3.6.11	No Attachment
General Description: Vessels above 10,000 psi reevaluation of remaining life		
Subgroup: Inspection		
Task Group: V. Newton (PM), J. Mangas, V. Scarcella, D. Fulford, J. King		
Submitted by: Craig Bierl		
Explanation of Need: Inspectors need to be able to have a paper trail of the code integrity of these vessels. Changing the original data (in this case, designed cycle life) should ONLY be completed with the involvement of an authorized inspector and MUST be documented on a National Board form in order to be audited by the inservice inspector.		
July 2025 Meeting Action: It was noted that a progress report was given in the SG meeting.		

Item Number: 24-90 **NBIC Location: Part 2, S12.7 d)** **No Attachment**

General Description: Require means to prevent safety valve discharge piping blockage for LCDSV (Part 2)

Subgroup: Inspection

Task Group: None assigned.

Submitted by: Mark Edwards

Explanation of Need: Adding verbiage to the NBIC Part 1, Part 2 and Part 4 to require a means to prevent foreign material introduction to the safety valve discharge pipe.

July 2025 Meeting Action:

The SG closed this item with no action as Part 4 is working on the item. A motion was made in the SC to **close this item with no action**. The motion was seconded and **unanimously approved**.

Item Number: 24-100 **NBIC Location: Part 2, Section 5** **Attachment Page 9**

General Description: Add field to NB 6 & NB 7 from JRS Team

Subgroup: Inspection

Task Group: None assigned.

Submitted by: V. Scarcella

Explanation of Need: Repeatedly came up in investigations and in discussions that after reviewing an inspection form the reader has no idea if the object was operating.

July 2025 Meeting Action:

The SC reviewed the proposal showing the wording that will be added to the bottom of forms NB-6 & NB-7. It was noted that this proposal was unanimously approved through SG. A motion was made to accept the proposal as presented. The motion was seconded and **unanimously approved**.

Item Number: 24-104 **NBIC Location: Part 2, 2.1** **Attachment Page 10**

General Description: Add language clarifying the limitation of inspections presented by design.

Subgroup: Inspection

Task Group: V. Scarcella (PM), T. Bolden, J. Sowinski, R. Kennedy, W. Griffith, B. Ross, B. Ray, M. Whitlock

Submitted by: V. Scarcella

Explanation of Need: Currently an inspector could be held responsible for conditions they could not reasonably access.

July 2025 Meeting Action:

The proposal that was passed unanimously though the SG was reviewed by the SC. A motion was made to accept the proposal as presented. The motion was seconded and **unanimously approved**.

Item Number: 24-105	NBIC Location: Part 2, 1.5.1	No Attachment
General Description: Need to restrict signatures to inspections for which the inspector was present		
Subgroup: Inspection		
Task Group: None assigned.		
Submitted by: V. Scarcella		
Explanation of Need: It has become practice in one jurisdiction for inspectors to sign inspection reports for apprentices.		
July 2025 Meeting Action: It was noted that this item was closed with no action in the SG meeting. A motion was made to close this item with no action . The motion was seconded and unanimously approved .		

12. New Items

Item Number: 25-23	NBIC Location: Part 2, 3.4.8	No Attachment
General Description: Add guidance for tube sag allowance		
Subgroup: Inspection		
Task Group: None assigned.		
Submitted by: V. Scarcella		
Explanation of Need: Inspectors were asking for clarification and better guidance. Item needs a working group to consider language.		
July 2025 Meeting Action: Progress Report – A task group was created in the SG meeting.		

Item Number: 25-27	NBIC Location: Part 2, 2.3.6.2, 2.3.6.4, 4.4, S7.8	No Attachment
General Description: Fitness-for-service coordination with API 579-1/ASME FFS-1		
Subgroup: Inspection		
Task Group: None assigned.		
Submitted by: J. Hadley		
Explanation of Need: Alert users about situations where acceptance criteria in Part 2 may be less strict than API 579-1/ASME FFS-1.		
July 2025 Meeting Action: Progress Report – A task group was created in the SG meeting.		

Item Number: 25-31	NBIC Location: Part 2, New Supplement	No Attachment
General Description: Add a supplement that lists the standard boiler and pressure vessel types		
Subgroup: Inspection		
Task Group: None assigned.		
Submitted by: V. Scarcella		
Explanation of Need: This would get states using the standard across the country both from a violation and object type.		
July 2025 Meeting Action: Progress Report – A task group was created in the SG meeting. The task group will also be working to update the wording for the “Explanation of Need” for the item.		

Item Number: 25-32	NBIC Location: Part 2, New Supplement	No Attachment
General Description: Referenced standards added supplement to NBIC Part II		
Subgroup: Inspection Task Group: None assigned. Submitted by: V. Scarcella		
Explanation of Need: Need working group to review and propose appropriate action.		
July 2025 Meeting Action: Progress Report – A task group was created in the SG meeting.		

Item Number: 25-36	NBIC Location: Part 2, S8.2	No Attachment
General Description: Relief valve differential percentage conflict.		
Subgroup: Inspection Task Group: None assigned. Submitted by: I. McGregor		
Explanation of Need: Clarification is needed to ensure a correct assessment of the recommended differential pressure percentage between the operating pressure and lifting pressure of the pressure relief valve. When making formal recommendations for corrective action due to high operating pressure differentials observed during inspections, the correct recommended value is needed to guide the adjustments necessary.		
July 2025 Meeting Action: It was noted that the SG voted to move this item to Part 4. A motion was made by the SC to move this item to Part 4. The motion was seconded and unanimously approved.		

Item Number: 25-37	NBIC Location: Part 2, Forms	Attachment Pages 11-14
General Description: Minor changes to NBIC Part 2 forms		
Subgroup: Inspection Task Group: None assigned. Submitted by: V. Scarcella		
Explanation of Need: Minor changes to NBIC Part 2 forms		
July 2025 Meeting Action: The proposal that was unanimously approved through the SG was reviewed by the SC. A motion was made to approve the proposal as presented. The motion was seconded and unanimously approved.		

Item Number: 25-43	NBIC Location: Part 2, 5.3.2	No Attachment
General Description: NB-4, 6 & 7 Forms		
Subgroup: Inspection Task Group: None Assigned Submitted by: J. Roberts		
Explanation of Need:		
July 2025 Meeting Action: Progress Report – A task group was created in the SG meeting.		

13. Future Meetings

- January 12-15, 2026 – New Orleans, LA
- July 2026 – Salt Lake City, UT
- January 2027 – Nashville, TN

Mr. Horbaczewski discussed the future meetings with the SC.

14. Adjournment

A motion was made to adjourn the meeting at 9:10 am. The motion was seconded and unanimously approved.

Respectfully submitted,

A handwritten signature in black ink that reads "Jodi Metzmaier". The signature is written in a cursive, flowing style.

Jodi Metzmaier
Subcommittee Inspection Secretary

Subcommittee Inspection Member Attendees - July 2025

MEMBERS:	Interest Category	Email	Registered	In Person Attendance	Remote Attendance	Not In Attendance
Mark Horbaczewski Chair	Users	mhorbaczewski@diamondtechnicalservices.com	In-Person	X		
Darrell Graf Vice Chair	National Board Certificate Holders	grafdr@airproducts.com				X
Jodi Metzmaier Secretary	NBBI	jmetzmaier@nbbi.org	In-Person	X		
Joseph Beauregard	Users	joeducati@hotmail.com	In-Person	X		
Chuck Becker	Authorized Inspection Agencies	hgbecker@yahoo.com	In-Person	X		
Tim Bolden	Authorized Inspection Agencies	timothy.bolden@cna.com	In-Person	X		
Lee (Damon) Burton	National Board Certificate Holders	burtondl@airproducts.com	In-Person	X		
James Calvert	National Board Certificate Holders	jcalvert@lilly.com	In-Person	X		
James Clark	Manufacturers	james.clark@worthingtonindustries.com	In-Person	X		
David Dexter	Users	dexterde@dow.com	Remote		X	
William Hackworth	Authorized Inspection Agencies	william.hackworth@tuvsud.com	Remote		X	
Jerry Jessick	Users	jjessick@fusion-etc.com	In-Person	X		
John Mangas	General Interest	jcmangas@gmail.com				X
Clay Moultrie	Manufacturers	cmoultrie@propanetank.com	In-Person	X		
Venus Newton	Authorized Inspection Agencies	venus_newton@yahoo.com	In-Person	X		
Pat Polick	Jurisdictional Authorities	patrick.polick@illinois.gov	In-Person	X		
Brent Ray	Users	bdray@marathonpetroleum.com	In-Person	X		
James Roberts	Manufacturers	james.roberts@triarccorp.com	In-Person	X		
David Rose	Users	dr3747@telus.net				X
William Ross	Jurisdictional Authorities	wross@pa.gov	In-Person	X		
Jason Safarz	General Interest	jsafarz@karldungsusa.com	In-Person	X		
Vincent Scarella	Authorized Inspection Agencies	vincent.scarella@cna.com	In-Person	X		
Brandon Steinhart	Authorized Inspection Agencies	brandon.steinhart@fmglobal.com	In-Person	X		
Thomas Vandini	National Board Certificate Holders	tvandini@propanetank.com	In-Person	X		
Mike (Gerald) Whitlock	Authorized Inspection Agencies	gerald_whitlock@hsb.com	In-Person	X		

Subcommittee Inspection Visitor Attendees - July 2025

VISITORS:	Company/Title/Interest	Email	Registered	In Person Attendance	Remote Attendance
Daniel Fulford	Battelle Energy Alliance, LLC Quality Engineer	Daniel.fulford@inl.gov	In-Person	X	
Jerry Holland	Bureau Veritas	jerry.holland@bureauveritas.com	In-Person	X	
Randy Kennedy	Babcock & Wilcox - Quality Manager	rkennedy@babcock.com	In-Person	X	
Jeremy Smith	NC Department of Labor- Boiler Safety Bureau	jeremy.smith@labor.nc.gov	In-Person	X	
Robby Troutt	Texas Department of Licensing and Regulation	rob.troutt@tdlr.texas.gov	In-Person	X	
William "Butch" Lynch	Office of Commissioner of Insurance & Safety Fire	blynch@oci.ga.gov	Remote	X	
James Bell	Fink Engineering	jim@finkusa.com	In-Person	X	
Chip Eskridge	Becht	ceskridge@becht.com	In-Person	X	
James Hadley	Fact Fancy, LLC	james.hadley@factplusfancy.com	Remote	X	
Daniel Fulford	Battelle Energy Alliance, LLC Quality Engineer	Daniel.fulford@inl.gov	In-Person	X	
Wil Griffith	Zurich - RE Manager	william.griffith@zurichna.com		X	
Chris Selinger					X
James Sowinski	The Equity Engineering Group, Inc. Principal Engineer	jsowinski@c2g.com	In-Person	X	
Rich Wallace				X	
Joran Dalton				X	
Alex Chang				X	
Rich Wallace	Diamond Technical Services	rwallace@diamondtechnicalservices.com	In-Person	X	
Ken Barkdoll	ARISE District Manager	ken.barkdoll@tuvsud.com			X
Demetria Rodriguez	NBBI	drodriguez@nbbi.org	In-Person	X	
Lee Cochran	NBBI	leochran@nbbi.org	In-Person	X	
Mark Mooney	NBBI	mmooney@nbbi.org	In-Person	X	

Announcements

Page 1 of 1

- MS Teams Notes:
 - Please stay muted during the meeting. If you would like to speak, please use the “raise hand” feature, and then you can unmute as you are called on. Teams will note the order in which your hands were raised, and we will call on you in that order.
 - Any messages sent through chat **will be displayed for anyone in the meeting to see**. If you need to send me a private message, please send it to me directly and not through the meeting chat.
 - If you are calling in with a phone number, please change your name from your phone number to your actual name.

- This meeting marks the end of Cycle B for the 2027 NBIC edition.

- With the release of the new 2025 Edition of the NBIC the National Board has a gift for all NBIC Committee Members to show our appreciation for all your hard work. Please see Jonathan or Luis in the NB office (Mt. Washington Room), located here on the 4th Floor to receive your gift.

- The National Board will be hosting a reception on Wednesday evening from 5:30 p.m. to 7:30 p.m. at Ault Park, on the 4th floor of the hotel.

- The National Board will be hosting breakfast and lunch on Thursday for those attending the Main Committee meeting. Breakfast will be served from 7:00 a.m. to 8:00 a.m. in Madisonville A/B, and lunch will be served from 11:30 a.m. to 12:30 p.m. in Madisonville A/B.

- If you’d like to open a new Interpretation or Action Item, this should be done through the National Board Business Center.
 - Anyone, member or not, can open a new item.

- Meeting schedules, meeting room layouts, and other helpful information can be found on the National Board website under the **NBIC** tab → NBIC Meeting Information.

- **The NBIC Committee has transitioned from NB File Share to SharePoint.** Remember to add any attachments that you’d like to show during the meeting (proposals, reference documents, PowerPoints, etc.) to the NBIC SharePoint site (nationalboard.sharepoint.com/sites/NBIC) **prior to the meeting**.
 - Note that access to the NBIC SharePoint site is limited to committee members only.
 - ALL PowerPoint attachments/presentations must be sent to the NBIC Secretary for approval prior to the meeting.
 - Contact Jonathan Ellis (nbicsecretary@nbbi.org) for any questions regarding NBIC SharePoint access.

- All proposals should be submitted in word with “strike through/underline” tracking.
 - Please contact me (jmetzmaier@nbbi.org) if you need any help with this.
 - Project Managers: please ensure any proposals containing text from the 2023 NBIC are updated to contain text from the 2025 NBIC.

- As a reminder, anyone who would like to become a member of a group or committee:
 - should attend at least 2 meetings prior to being put on the agenda for membership consideration. The nominee will be on the agenda for vote during their 3rd meeting, and they would become a voting member during their 4th meeting.
 - The nominee must submit the formal request along with their resume to the NBIC Secretary, Jonathan Ellis, **PRIOR TO** the meeting. nbicsecretary@nbbi.org
 - 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, the room set up, etc. Please continue to use the online registration for each meeting, whether you are attending in person or remote. It also is a good way to make sure we have the most up-to-date contact information.

NBIC Action Item 25-14
 Submitted by Mike Wahl (mikew.steam@gmail.com)
 Submitted on 1/16/25



THE NATIONAL BOARD
 OF BOILER AND PRESSURE VESSEL INSPECTORS

Subject:	Update location, title and terminology for UT requirements on boilers with Insulation and Jackets
NBIC Location:	Part 2, Supplement 2
Statement of Need:	Currently this information is not in the same location as the other UT requirements in Part 2 Supplement. The terminology for which areas can be used is vague and general.
Background Information:	The firebox is a general term used on a historical boiler. Only the outside of the firebox (wrapper sheet, throat sheet and backhead) are covered with insulation and jacketing. The inside (rear tube sheet, door sheet, side sheets and crown sheet) are not cover and can be inspected in their entirety.
Changes	<ol style="list-style-type: none"> 1. Move from Part 2, Supplement 2, S2.10.8 to Part 2, Supplement 2, S2.6.2.1. 2. Update Title to "UT EXAMINATION OF BOILER WITH INSULATION AND JACKETING" 3. Update a) to state wrapper sheet, throat sheet, and backhead instead of firebox.

S2.10.8S2.6.2.1 ULTRASONIC THICKNESS TESTING OF BOILER WITH INSULATION AND JACKETING

- a) The pressure retaining item shall be subjected to ultrasonic thickness testing (UT) per S2.6.2 to establish a baseline thickness for all of the boiler components. The original Manufacturer's Data Report may be used to establish baseline thickness. Recurring UT inspections per S2.6.2 f) may be taken at the bottom of the barrel and around the bottom of the **firebox wrapper sheet, throat sheet, and backhead.**
- b) Should removal of the insulation and jacket be requested by the Inspector, agreement should be obtained by the owner or user, Inspector, and jurisdiction if required.

NBIC Action Item 25-05
 Submitted by Linn Moedinger (linnwm@supernet.com)
 Submitted on February 24, 2025



**THE NATIONAL BOARD
 OF BOILER AND PRESSURE VESSEL INSPECTORS**

Subject:	Washout plug engagement limits for locomotive boilers.
NBIC Location:	Part 2, S1.4.2.22
Statement of Need:	There is no current wording for washout plug engagement.
Background Information:	Steam locomotive industry has experienced some issues/failures related to washout plug engagement

Proposed Text:

S1.4.2.22 SCREW-TYPE WASHOUT PLUGS, HOLES, AND SLEEVES

Screw-type washout plugs, holes, and sleeves, especially those having square or Acme thread, shall be inspected for:

- a) Damaged or cracked threads on the plug, hole, or sleeve;
- b) Corrosion;
- c) Cracks;
- d) Distortion;
- e) Looseness;
- f) Leakage;
- g) Steam cuts to threads and sealing surfaces; and
- h) Twisting of the plug head or body.

Note: When washout plugs are threaded ~~with using fine threads such as, but not limited to~~ USF or NPT thread, the minimum number of threads in good condition in the threaded hole shall be adequate for the service.

- i) ~~Tapered washout plugs using fine threads such as, but not limited to USF and NPT threads, shall completely engage all threads in the sheet so that no sheet threads are exposed to steam or water or are visible on the outside of the boiler. A minimum of one thread on the plug shall be visible on the exterior of the boiler at any point measured on the circumference of the plug. A minimum of one thread shall protrude into the water/steam space measured on any point of the circumference of the plug. A maximum of 12 threads shall protrude into the water/steam space measured on any point of the circumference of the plug.~~

Item 24-28

Submitted by G. Galanes

Background

The intent of this code revision is to address concerns related to the application of PWHT when no PWHT was originally performed/required. We identified it as an alteration with no guidance on how to address post construction application of PWHT.:

Proposed Revisions: Add text (red underlined is new text) to Part 2, Supplement 9, paragraph S9.3(b), as a new subparagraph S9.3(b)(4) to Supplement 9 Change of Service;

S9.3 FACTORS TO CONSIDER

b) Material Consideration:

- 1) Chemical and mechanical properties of existing material or any new material to be added or replaced to ensure it has the required strength and toughness to withstand the pressure and temperature effects of the new environment.
- 2) Effects of erosion or corrosion.
- 3) Time-dependent effects on service life: Creep, fatigue, or both effects combined.
- 4) Prior to application of post weld heat treatment (PWHT) to a pressure retaining item when no PWHT had been performed based on the original code of construction, both conditions shall be met:
 - a. determine that the application of PWHT will not adversely affect the performance of the pressure retaining item for the intended service conditions.
 - b. determine the PWHT holding temperature and holding time.

REFERENCE: Add a statement in Part 3, paragraph 3.4.4(k) referring the user to this new subparagraph, by revising it to read:

k) Performing post weld heat treatment (PWHT) where no PWHT was originally performed on the pressure retaining item. [See Part 2, S9.3b)4)].

Submitted By: George Galanes, P.E.

NBIC PART 2

TABLE 2.5.8

Service	Recommended Inspection <u>Type</u> /Frequency (See Note 4)
Power boilers less than 400 psig (2.76 MPa)	Lift lever test every six months; set pressure test annually or prior to planned boiler shutdown
Power boilers 400 psig (2.76 MPa) or greater	Set pressure test every three years or prior to planned boiler shutdown
High-temperature hot-water boilers (See Note 1)	Set pressure test annually
Low-pressure steam-heating boilers	Lift lever test quarterly; set pressure test annually prior to heating season
Organic fluid vaporizers	Remove, inspect, and set pressure test annually
Thermal fluid heaters	Remove, inspect, and set test pressure annually
Hot-water-heating boilers (See Note 2)	Lift lever test quarterly; set pressure test annually prior to heating season
Water heaters (See Note 3)	Lift lever test every two months; every three years, remove and inspect temperature probe for damage, buildup, or corrosion
Pressure vessels / piping-steam service	Set pressure test annually
Pressure vessels / piping-air/clean, dry gas	Set pressure test every three years
Pressure vessels /piping-propane/refrigerant	Set pressure test every five years
Pressure relief valves in combination with rupture disks	Set pressure test every five years
All others	Per inspection history

Note 1:

For safety reasons, removal of the valve and testing on a steam test bench is recommended. Such testing will avoid damaging the pressure relief valve by discharge of a steam-water mixture, which could occur if the valve is tested in place.

Note 2:

The frequencies specified for the testing of pressure relief valves on boilers are primarily based on differences between high-pressure boilers that are continuously monitored, and lower pressure, automatically controlled boilers that are not monitored at all times by an operator. When any boiler experiences an overpressure condition such that the pressure relief valves actuate, the valves should be inspected for seat leakage and other damage as soon as possible, and any deficiencies should be corrected.

Note 3:

The temperature probe shall be checked for the condition of the coating material and freedom of movement without the probe becoming detached. If the valve is damaged or fails the testing described in Table 2.5.8 above, it shall be repaired or replaced.

Note 4:

Where the jurisdiction has adopted other standards for specific applications, those standards shall be used.

24-75

Jeremy Smith

Page 2 of 2

2.5 PRESSURE RELIEF DEVICES

2.5.1 SCOPE

- a) The most important appurtenances on any pressurized system are the pressure relief devices (PRDs) provided for overpressure protection of that system. These are devices such as pressure relief valves, ~~and~~ rupture disks, ~~and-or~~ other non-reclosing devices that are called upon to operate and reduce an overpressure condition.

2.5.5.1 POWER BOILERS

2.5.5.2 HOT-WATER HEATING BOILERS, HOT WATER SUPPLY BOILERS, AND POTABLE WATER HEATERS

2.5.5.4 NON-RECLOSING PRESSURE RELIEF DEVICES

- g) For rupture disks and other non-reclosing devices, the following additional items should be considered during inspections.

9) Since rupture disks are non-reclosing devices single activation devices, a visual inspection is the only inspection that can be performed. A rupture disk that is removed from its holder ~~shall~~ ~~should~~ not be reinstalled unless recommended by the manufacturer. A rupture disk contained in an assembly that can be removed from a system without releasing the force maintaining the ~~intimate~~ contact between the disk and the holder, such as pre-torqued, welded, soldered, and some threaded assemblies, may be suitable for reinstallation after visual inspection. The manufacturer should be consulted for specific recommendations.

2.5.8.1 ESTABLISHMENT OF INSPECTION AND TEST INTERVALS

Where a recommended test frequency is not listed, the valve user and Inspector must determine and agree on a suitable interval for inspection and test. Some items to be considered in making this determination are:

- a) Jurisdictional requirements;
- b) Records of test data and inspections from similar processes and similar devices in operation at that facility;
- c) Recommendations from the device manufacturer. In particular, when the valve includes ~~a~~ non-metallic parts such as a diaphragm or soft seat, periodic replacement of those parts may be specified;

24-100
V. Scarcella

Wording to add to the bottom of NB-6 & NB-7:

The owner user is responsible for the proper operation, care and maintenance of all jurisdictional objects and compliance with all applicable codes and regulations. The inspection is a point in time inspections and conditions can change often and suddenly. By signing this certificate, neither the undersigned nor my employer makes any warranty, expressed or implied, concerning the work described in this report. Furthermore, neither the undersigned nor my employer shall be liable in any manner for any personal injury, property damage, or loss of any kind arising from or connected with this inspectiondocument review.

NBIC Action Item A24-104
 Submitted by Vinny Scarcella (Vincent.Scarcella@cna.com)
 Submitted on: November 25, 2024



**THE NATIONAL BOARD
 OF BOILER AND PRESSURE VESSEL INSPECTORS**

Subject:	Add language clarifying the limitation of inspections presented by design.
NBIC Location:	Part 2, 2.1
Statement of Need:	Currently an inspector could be held responsible for conditions they could not reasonably access.
Background Information:	Without a statement explaining the limitations persons not familiar with code construction may erroneously believe and inspector can access all surfaces of a boiler.

Proposed Text:

Inspectors are not always able to see all parts of the boiler during an inspection. The construction of the boiler can limit the scope of inspection. Boilers without handholes and manholes limit visual access to water and steam side surfaces.

**PART 2, SECTION 2
 INSPECTION — DETAILED REQUIREMENTS FOR
 INSERVICE INSPECTION OF PRESSURE-RETAINING ITEMS**

2.1 SCOPE

This section provides general and detailed inspection requirements and guidelines for pressure-retaining items to determine corrosion deterioration and possible prevention of failures for boilers, pressure vessels, piping, and pressure relief devices.

Visual inspections of pressure-retaining items that are inherently limited by physical design features may not allow for viewing every part of an object. Insulation and other obstructions can impede the inspection, and some flaws may not be visible. An inspector should make every reasonable effort to safely access and inspect all areas physically possible. The Inspector shall not be responsible for any defects, damages, or issues that were not visible or accessible at the time of the inspection.

Materials to be inspected shall be suitably prepared so that surface irregularities will not be confused with or mask any defects. Material conditioning such as cleaning, buffing, wire brushing, or grinding may be required by procedure or, if requested, by the Inspector. The Inspector may require insulation or component parts to be removed.



FORM NB-6 BOILER-FIRED PRESSURE VESSEL REPORT OF INSPECTION

Standard Form for Jurisdictions Operating Under the ASME Code

1. DATE INSPECTED: _____ CERTIFICATE EXPIRATION DATE: _____ CERTIFICATE POSTED: YES NO
(Month/Day/Year) (Month/Day/Year)

USER NUMBER: _____ NAT'L BD NUMBER OR SERIAL # (IF CAST IRON) _____

FIRST INSPECTION: YES NO JURISDICTION NUMBER: _____

NATIONAL BOARD NUMBER: _____ OTHER NUMBER: _____

2. EQUIPMENT LOCATION NAME: _____

EQUIPMENT LOCATION ADDRESS: _____
(Equipment Location Street) (Equipment Location City)

(Equipment Location State) (Equipment Location Zip Code)

NATURE OF BUSINESS: _____

KIND OF INSPECTION: INTERNAL EXTERNAL CERTIFICATE RENEWAL: YES NO

3. CERTIFICATE BUSINESS NAME: _____

CERTIFICATE CONTACT: _____
(NAME) (Email)

CERTIFICATE MAILING ADDRESS: _____
(Certificate Mailing Street) (Certificate Mailing City)

(Certificate Mailing State) (Certificate Mailing Zip Code)

4. INVOICE BUSINESS: _____
(Name)

CERTIFICATE INVOICE CONTACT: _____
(Name) (Email)

INVOICE ADDRESS: _____
(Invoice Address Street) (Invoice Address City)

(Invoice Address State) (Certificate Mailing Zip Code)

5. TYPE: FT WT CI OTHER: _____ ASME/OTHER CODE: _____

MANUFACTURER: _____ YEAR BUILT: _____

MANHOLE HANDHOLE NEITHER CERTIFICATE DURATION (MONTHS): _____

6. USE: POWER PROCESS STEAM HEATING HWH HWS OTHER

FUEL TYPE: _____ METHOD OF FIRING: _____

LOCATION IN PLANT: _____

SECTION 5



7. LOW WATER CUTOFF INSTALLED: YES NO TESTED: YES NO

HIGH LIMIT TEMP/PRESSURE INSTALLED: YES NO WAS BOILER FIRED: YES NO

COMBUSTION CONTROLS: CSD-1 NFPA OTHER _____

COMBUSTION AIR VERIFIED: YES NO

8. ARE THERE ANY KNOWN OUTSTANDING (OPEN) VIOLATIONS FOR THIS EQUIPMENT? YES NO (IF YES, EXPLAIN FULLY UNDER ADVERSE CONDITIONS FOUND)

LOG/RECORD REVIEW: YES NO

PRESSURE TEST: YES PSI: _____ DATE: _____ NO

9. STAMPED MAWP: _____ MINIMUM PRD REQUIRED CAPACITY: _____

NUMBER OF PRD'S: _____ TOTAL CAPACITY: _____ Verify relief valve has yes no been tested

SET PRESSURE: _____ CAPACITY: _____

SET PRESSURE: _____ CAPACITY: _____

SET PRESSURE: _____ CAPACITY: _____

10. INSPECTORS COMMENTS: (Verify any repairs were completed by a qualified repair company, and when applicable, the proper repair/alterations forms are completed.)

11. ADVERSE CONDITIONS FOUND: _____

12. REQUIREMENTS: _____

13. PERSON TO WHOM REQUIREMENTS WERE EXPLAINED: _____ (Name) _____ (Title)

_____ (Email) _____ (Phone Number)

14. I HEREBY CERTIFY THIS IS A TRUE REPORT OF MY INSPECTION:

NB COMMISSION NUMBER: _____ EMPLOYED BY: _____

IDENTIFICATION NUMBER: _____ SIGNATURE OF INSPECTOR: _____



FORM NB-7 PRESSURE VESSELS REPORT OF INSPECTION

Standard Form for Jurisdictions Operating Under the ASME Code

1. DATE INSPECTED: _____ CERTIFICATE EXPIRATION DATE: _____ CERTIFICATE POSTED: YES NO
(Month/Day/Year) (Month/Day/Year)

USER NUMBER: _____ JURISDICTION NUMBER: _____

NATIONAL BOARD NUMBER: OR SERIAL NUMBER: (IF CAST IRON) _____

FIRST INSPECTION: YES NO

2. EQUIPMENT LOCATION NAME: _____

NATURE OF BUSINESS: _____

KIND OF INSPECTION: INTERNAL EXTERNAL CERTIFICATE RENEWAL: YES NO

3. EQUIPMENT LOCATION ADDRESS: _____
(Equipment Location Street) (Equipment Location City)

(Equipment Location State) (Equipment Location Zip Code)

4. CERTIFICATE BUSINESS NAME: _____

CERTIFICATE CONTACT: _____
(NAME) (Email)

5. CERTIFICATE MAILING ADDRESS: _____
(Certificate Mailing Street) (Certificate Mailing City)

(Certificate Mailing State) (Certificate Mailing Zip Code)

6. INVOICE BUSINESS: _____
(Name)

CERTIFICATE INVOICE CONTACT: _____
(Name) (Email)

7. INVOICE ADDRESS: _____
(Invoice Address Street) (Invoice Address City)

(Invoice Address State) (Certificate Mailing Zip Code)

8. TYPE: AIRTANK WATER TANK OTHER: _____ ASME/OTHER CODE: _____

MANUFACTURER: _____ YEAR BUILT: _____

MANHOLE HANDHOLE NEITHER CERTIFICATE DURATION (MONTHS): _____

9. USE: STORAGE PROCESS HEAT EXCHANGE OTHER: _____

HORIZONTAL VERTICAL LENGTH: _____ DIAMETER: _____

SECTION 5



10. STAMPED MAWP: _____ MINIMUM PRD REQUIRED CAPACITY:

NUMBER OF PRD'S: _____ TOTAL CAPACITY: _____

Verify relief valve has been tested yes no

SET PRESSURE: _____ CAPACITY: _____

SET PRESSURE: _____ CAPACITY: _____

SET PRESSURE: _____ CAPACITY: _____

OVERPRESSURE PROTECTION BY SYSTEM DESIGN: SIZE (ft³ or Gallons):

11. ARE THERE ANY KNOWN OUTSTANDING (OPEN) VIOLATIONS FOR THIS EQUIPMENT? YES NO (IF YES, EXPLAIN FULLY UNDER ADVERSE CONDITIONS FOUND)

PRESSURE TEST: YES PSI _____ Date _____ NO

12. INSPECTORS COMMENTS: (Verify any repairs were completed by a qualified repair company, and when applicable, the proper repair/alterations forms are completed.)

13. ADVERSE CONDITIONS FOUND: _____

14. REQUIREMENTS: _____

15. PERSON TO WHOM REQUIREMENTS WERE EXPLAINED: _____

(Name)

(Title)

(Email)

(Phone Number)

16. I HEREBY CERTIFY THIS IS A TRUE REPORT OF MY INSPECTION:

NB COMMISSION NUMBER: _____ EMPLOYED BY: _____

IDENTIFICATION NUMBER: _____ SIGNATURE OF INSPECTOR: _____