



*THE NATIONAL BOARD  
OF BOILER AND PRESSURE VESSEL INSPECTORS*

# **NATIONAL BOARD INSPECTION CODE SUBGROUP INSTALLATION**

## **AGENDA**

---

Meeting of January 9<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

Mr. Eddie Wiggins – 10 Years as a member of Installation

## 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](http://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 must be sent to the NBIC Secretary prior to the meeting for approval.
  - Contact Jonathan Ellis ([nbicsecretary@nbbi.org](mailto: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. [nbicsecretary@nbbi.org](mailto: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, 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 July 11, 2023 Meeting

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

## 8. Review of Rosters

### a. Membership Nominations

- Mr. Kim Black is interested in becoming a member of Subgroup Installation, representing Manufacturers.
- Mr. Robert Smith is interested in becoming a member of Subgroup Installation, representing General Interest.

### b. Membership Reappointments

None.

### c. Officer Appointments

None.

## 9. Open PRD Items Related to Installation

- NB15-0305 – Create Guidelines for Installation of Overpressure Protection by System Design – D. Marek (PM).
- NB15-0315 – Review isolation valve requirements in Part 1, 4.5.6 and 5.3.6 – D. DeMichael (PM)
- 19-83 – Address Alternate Pressure Relief Valve Mounting Permitted by ASME CC2887-1 – D. Marek (PM)
- 22-08 – Review and improve guidance for T&P valve installation relating to probe.
- 22-16 – Allow the use of pressure relief valves on potable water heaters.

## 10. Interpretations

There are no Part 1 interpretation requests to address.

## 11. Action Items

Item Number: 20-62	NBIC Location: Part 1, 1.4.5.1	No Attachment
<b>General Description:</b> Update the National Board Boiler Installation Report		
<b>Subgroup:</b> SG Installation		
<b>Task Group:</b> T. Clark (PM), E. Wiggins, R. Spiker, T. Creacy, P. Jennings, G. Tompkins, and D. Patten.		
<b>Explanation of Need:</b> The form has not been updated in years. The form will be part of the National Board’s Jurisdictional Reporting System (JRS) which is currently under development.		
<b>July 2023 Meeting Action: Progress Report</b>		
Mr. Clark brought up the report and the corresponding instructions. The group discussed adding a block under “Code Information” to apply to Modular boilers (NB/serial numbers). It was also noted that if formatting of the report pushes it onto another page, JRS staff will need to add verbiage that makes it clear that the applicable pages are part of the same report (e.g., owner info, stamp, etc. displayed on each page).		

<b>Item Number: 20-86</b>	<b>NBIC Location: Part 1, 2.10.1 a)</b>	<b>No Attachment</b>
<p><b>General Description:</b> Testing and Acceptance: Boil-out Procedure</p> <p><b>Subgroup:</b> SG Installation</p> <p><b>Task Group:</b> E. Wiggins (PM), D. Patten, S. Konopacki, and R. Spiker</p> <p><b>Explanation of Need:</b> This was brought to my (Mr. Eddie Wiggins) attention by Ernest Brantley. Mr. Brantley indicated during an acceptance inspection, he found boiler with excessive oil on the tubes and tube sheet after boiler was delivered and installed. He could not find any reference to boil-out to remove this extraneous material.</p>		
<p><b>July 2023 Meeting Action: Progress Report</b></p> <p>Mr. Wiggins stated that a proposal was sent to Part 3 but that they didn't feel they needed to take any action. Mr. Wiggins will have a proposal ready for the subcommittee meeting.</p>		

<b>Item Number: 22-28</b>	<b>NBIC Location: Part 1</b>	<b>No Attachment</b>
<p><b>General Description:</b> Pool Heater requirements and definition</p> <p><b>Subgroup:</b> SG Installation</p> <p><b>Task Group:</b> J. Kleiss (PM), R. Spiker, T. Creacy, and M. Byrum</p> <p><b>Explanation of Need:</b> The NBIC Installation and Inspection Codes do not have a definition for pool heaters. There is potential for confusion regarding which NBIC requirements, if any, should apply to pool heaters.</p>		
<p><b>July 2023 Meeting Action: Progress Report</b></p> <p>Mr. Kleiss presented his proposal. The group discussed changing the verbiage for "appliance" (in proposal) since it wouldn't align with the Glossary definition. Mr. Kleiss will revise his proposal with new verbiage. He will also work with Mr. Clark on adding "Pool Heater Unique Requirements" to the Boiler Installation Report and its corresponding instructions (Item 20-62).</p>		

<b>Item Number: 22-32</b>	<b>NBIC Location: Part 1, 3.8.1.4 b)</b>	<b>No Attachment</b>
<p><b>General Description:</b> High pressure limit control requirements for fired jacketed steam kettles</p> <p><b>Subgroup:</b> SG Installation</p> <p><b>Task Group:</b> R. Adams (PM), D. Patten, T. Clark, and T. Creacy</p> <p><b>Explanation of Need:</b> As a safeguard to over pressurizing the fired jacketed steam kettle, the pressure range of the actuated high pressure limit control should not exceed the MAWP of the vessel.</p>		
<p><b>July 2023 Meeting Action: Progress Report</b></p> <p>Mr. Clark reported on the proposal. They added verbiage to align with ASME Section VIII. The group discussed adding a definition of "kettle" to the Glossary. The task group will draft a proposal as a supplement on kettles.</p>		

<b>Item Number: 23-52</b>	<b>NBIC Location: Part 1, 2.5.3.2 and 3.5.3</b>	<b>No Attachment</b>
<b>General Description:</b> Harmonize electrical requirements for all types of boilers/water heaters		
<b>Subgroup:</b> SG Installation		
<b>Task Group:</b> T. Clark (PM), S. Konopacki, J. Kleiss, R. Spiker, and John Choitz		
<b>Explanation of Need:</b> Electrical requirements for power boilers, heating boilers, and water heaters are inconsistent, particularly regarding remote emergency shutdown switches. In some cases the requirements are the same, but worded or ordered differently. In order to promote better understanding of code requirements and consistency in their application, I propose making sections 2.5.3 and 3.5.5 as uniform as possible.		
<b>July 2023 Meeting Action: Progress Report</b>		
Mr. Clark presented his proposal which would address the inconsistencies between Sections 2.5.3 and 3.5.3 There was also some discussion on if 2.5.3.2 f) is necessary. The group revised the proposal. Mr. Clark will continue to update his proposal. A task group was created.		

**12. New Items:**

<b>Item Number: 23-67</b>	<b>NBIC Location: Part 1, 4.2.2</b>	<b>Attachment Page 2</b>
<b>General Description:</b> Pressure Gage Scale Requirements		
<b>Subgroup:</b> SG Installation		
<b>Task Group:</b> None assigned.		
<b>Explanation of Need:</b> Update pressure gage requirements to reflect industry practice and common ranges. Also, to allow for the use of gage overpressure protectors, which the current wording does not. For systems with an MAWP that greatly exceeds normal operating pressure, it is sometimes necessary to use a gage with a lower scale so that the gauge reads in the middle third of its scale during normal operation. In such a situation, a gage overpressure protector is installed upstream of the gage.		
<b>January 2024 Meeting Action:</b>		

**13. Future Meetings**

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

**14. Adjournment**

Respectfully submitted,



Michelle Vance  
Subgroup Installation Secretary

Last Name	First Name	Interest Category	Role	Exp. Date
Brockman	Joe	Authorized Inspection Agencies	Chair	07/30/2025
Wiggins	Edward	Jurisdictional Authorities	Vice Chair	07/30/2024
Vance	Michelle		Secretary	12/30/2099
Adams	Rodger	Authorized Inspection Agencies	Member	07/30/2025
Byrum	Marvin	Authorized Inspection Agencies	Member	07/30/2024
Clark	Tom	Jurisdictional Authorities	Member	07/30/2024
Creacy	Todd	Authorized Inspection Agencies	Member	01/30/2026
Downs	James	Manufacturers	Member	01/30/2026
Jennings	Patrick	Authorized Inspection Agencies	Member	01/30/2026
Kleiss	Jeff	Manufacturers	Member	07/30/2025
Konopacki	Stanley	Users	Member	01/30/2026
Patten	Don	National Board Certificate Holders	Member	07/30/2024
Richards	H. Michael	General Interest	Member	07/30/2024
Spiker	Ronald	Jurisdictional Authorities	Member	06/29/2025
Wadkinson	Melissa	Manufacturers	Member	07/30/2024



**PROPOSED REVISION OR ADDITION**

<b>Item No.</b> A 23-67	
<b>Subject/Title</b> Pressure Gage Scale Requirements	
<b>NBIC Location</b> Part: Installation; Section: 4; Paragraph: 4.2.2	
<b>Project Manager and Task Group</b>	
<b>Source (Name/Email)</b> Adam Renaldo / adam.renaldo@linde.com	
<b>Statement of Need</b> Update pressure gage requirements to reflect industry practice and common ranges. Also, to allow for the use of gage overpressure protectors, which the current wording does not. For systems with an MAWP that greatly exceeds normal operating pressure, it is sometimes necessary to use a gage with a lower scale so that the gauge reads in the middle third of its scale during normal operation. In such a situation, a gage overpressure protector is installed upstream of the gage.	
<b>Background Information</b> Industry practice on 500 psig MAWP pressure vessels is to install a 0-600 psig gage. There are tens of thousands of such vessels that do not comply with the current wording. Similarly, there are thousands of 2450 psig receiver vessels with 0-3000 psig gages that do not comply with the current wording. Most Pressure gages are designed with a proof pressure at 130% of full scale. For a typical relief valve with 10% allowable overpressure, even if the gage's scale were at set pressure, the proof pressure of the gage would not be exceeded. Having the scale 20% above set pressure still leaves plenty of safety margin.	
<b>Existing Text</b> 4.4.2 PRESSURE INDICATING DEVICES The need for pressure indicating devices should be considered in the design of the pressure vessel, and when required, the scale on the dial of the pressure gage shall be at least 25% above the highest set pressure of the pressure relief device.	<b>Proposed Text</b> 4.4.2 PRESSURE INDICATING DEVICES The need for pressure indicating devices should be considered in the design of the pressure vessel. <u>When required, the scale on the dial of the pressure gage shall be at least: a) 25% above the highest set pressure of the pressure relief device, for set pressures below 500 psig. b) 20% above the highest set pressure of the pressure relief device, for set pressures of 500 psig or greater c) The set pressure of the upstream gage overpressure protector, if installed, and when required, the scale on the dial of the pressure gage shall be at least 25% above the highest set pressure of the pressure relief device</u>

COMMITTEE	VOTE:				Passed	Failed	Date
	Approved	Disapproved	Abstained	Not Voting			