



*THE NATIONAL BOARD
OF BOILER AND PRESSURE VESSEL INSPECTORS*

NATIONAL BOARD INSPECTION CODE SUBCOMMITTEE INSTALLATION

MINUTES

Meeting of July 9, 2025
Cincinnati, OH

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 meeting was called to order at 8:00 a.m. Eastern Time, in Mt. Adams on the 4th floor of the hotel by Chair Don Patten.

2. Introduction of Members and Visitors

A list of members and visitors can be found in attachments page 1.

3. Check for a Quorum

Meeting was verified as having Quorum

4. Awards/Special Recognition

5. Announcements

- This meeting marks the end of Cycle B for the 2027 NBIC edition.
- 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.
- 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.
- When possible, please submit proposals in Word format showing “strike through/underline.” Project Managers: please ensure any proposals containing text from previous NBIC editions are updated with text from the most current edition.
- If you'd like to request a new Interpretation or Action item, do so 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
 - 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 setup, etc. It is also a good way to make sure we have the most up-to-date contact information. Please continue to use the online registration for each meeting.

6. Adoption of the Agenda

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.

8. Review of Rosters (Attachment Page 1)

a. Membership Nominations

Mr. John Mirjalali (Manufacturers) and Mr. Bryan Ahee (Manufacturers) are interested in becoming a member of **SG Installation**. **July 2025 Action:** A motion was made and seconded to appoint Bryan Ahee and John Mirjalali to Subgroup Installation. After discussion a vote was taken and the motion unanimously passed.

Mr. Rodger Adams (AIA) is interested in becoming a member of **SC Installation**.

b. Membership Reappointments

The following **Subgroup Installation** memberships are up for reappointment: Mr. Joe Brockman, Mr. Rodger Adams, Mr. Jeff Kleiss. **July 2025 Action:** A motion was made and seconded to reappoint Mr. Joe Brockman for membership and Chair of Subgroup Installation, as well as reappointing Rodger Adams and Jeff Kleiss as members. After discussion a vote was taken and the motion unanimously passed.

The following **Subcommittee Installation** memberships are up for reappointment: Mr. James Downs. Mr. Downs indicated that he wishes to be reappointed as member of Subcommittee Installation.

9. Other Committee Items Related to Installation

a. R&A

- i. Item 24-18** – Definition of Controlled Fill (P. Gilston as PM)

b. PRD

- i. Item NB15-0315** – Review isolation valve requirements in Part 1, 4.5.6 and 5.3.6 – D. DeMichael (PM).
- ii. Item 19-83** – Address Alternate Pressure Relief Valve Mounting Permitted by ASME CC2887-1 – D. Marek (PM).
- iii. Item 24-91** – Require means to prevent safety valve discharge piping blockage for LCDSV (Part 4).

10. Interpretations

Item Number: 25-11	NBIC Location: Part 1, 3.8.2.4	Attachments page 2
General Description: External Low-Water Fuel Cutoff for Hot Water Heating Boilers		
Subgroup: SG Installation		
Task Group: None assigned.		
Explanation of Need: The valves proposed are a means to avoid draining the hot water boiler of its water just to test the low water fuel cutoff, we want to verify that they satisfy the requirements of the code.		
July 2025 Meeting Action: A motion was made and seconded to respond to the inquirer that the interpretation request was consulting. After discussion a vote was taken and the motion unanimously carried.		

11. Action Items

Item Number: 22-28	NBIC Location: Part 1	No Attachment
<p>General Description: Pool Heater requirements and definition</p> <p>Subgroup: SG Installation</p> <p>Task Group: J. Kleiss (PM), R. Spiker, T. Creacy, and M. Byrum</p> <p>Explanation of Need: 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>July 2025 Meeting Action: Progress Report</p> <p>This item was letter balloted and received a few comments. Those comments have been addressed and a new proposal is ready letter ballot will be issued to Subgroup Installation between meetings.</p>		

Item Number: 23-52	NBIC Location: Part 1, 2.5.3.2 and 3.5.3	No Attachment
<p>General Description: Harmonize electrical requirements for all types of boilers/water heaters</p> <p>Subgroup: SG Installation</p> <p>Task Group: T. Clark (PM), S. Konopacki, J. Kleiss, R. Spiker, and Jon Choitz</p> <p>Explanation of Need: 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.</p>		
<p>July 2025 Meeting Update:</p> <p>Was balloted to Main Committee and was approved July 9.</p>		

Item Number: 24-05	NBIC Location: Part 1, New Supplement	No Attachment
<p>General Description: Add Heat Pump Water Heater & Heat Pump Hydronic Heater Supplement</p> <p>Subgroup: SG Installation</p> <p>Task Group: J. Kleiss (PM), Bryan Ahee, R. Troutt, T. Creacy, M. Watkinson, J. Mirjalali</p> <p>Explanation of Need: Heat pump water heating and hydronic heating are growing in prevalence. Guidance for installation and inspection of these products is needed.</p>		
<p>July 2025 Meeting Action: Progress Report</p> <p>Jeff Kleiss will be opening a new item to handle the definitions in proposal that was letter balloted between meetings and will be revising the proposal based on comments received. Item will be expanded to look at requirements for all electric boilers. New task group members were added.</p>		

Item Number: 24-26	NBIC Location: Part 1, 3.7.8	No Attachment
<p>General Description: NBIC Requirements for ASME Modular Water Heaters</p> <p>Subgroup: SG Installation</p> <p>Task Group: R. Spiker (PM), M. Byrum, J. Kleiss</p> <p>Explanation of Need: ASME Section IV added requirements in the 2023 Edition for modular water heaters. The NBIC currently includes requirements for modular steam-heating and hot-water heating boilers, but not for modular water heaters.</p>		
<p>July 2025 Meeting Action: Progress Report</p> <p>This item is ready for letter ballot between meetings</p>		

Item Number: 24-56	NBIC Location: Part 1, S3.6.1	No Attachment
<p>General Description: LCDSV Systems: Add Table and Figure</p> <p>Subgroup: SG Installation</p> <p>Task Group: M. Byrum (PM), R. Black</p> <p>Explanation of Need: In accordance with the NBIC Policy For Metrication, metric units need to be shown alongside US customary units. Table S3.6.1 and Figure S3.6.1-b both show only US customary units. I recommend adding a Table S3.6.1M and Figure S3.6.1-bM to show metric units. I've also included some additional editorial recommendations.</p>		
<p>January 2025 Meeting Action: Proposal</p> <p>During the July 2024 Main Committee meeting, the Committee asked that this item be put on hold until a similar section in Part 2 could be updated. SG/SC Inspection needs action item to work on Part 2 S12.7.</p>		

Item Number: 24-97	NBIC Location: Part 1, 2.7.5	No Attachment
<p>General Description: Anchoring of Threaded Blowdown Piping</p> <p>Subgroup: SG Installation</p> <p>Task Group: Jon Choitz (PM), Tom Clark Jim Byrum, Roger Adams, Ron Spiker</p> <p>Explanation of Need: An operator opened a blowdown valve located between a 90-degree elbow and the floor drain. The pressure released caused the piping to rotate at the elbow striking the operator and pressing him to the ground which resulted in his death. This could have been avoided if the piping was anchored at a point between the elbow and the discharge.</p>		
<p>July 2025 Meeting Action: Closed with no action</p> <p>A motion was made and seconded to close this item with no action. After discussion a vote was taken and unanimously passed. It will be covered under item 25-03.</p>		

Item Number: 24-102	NBIC Location: Part 1, 1.6.9	No Attachment
<p>General Description: Strengthen requirements for Carbon monoxide monitoring</p> <p>Subgroup: SG Installation</p> <p>Task Group: Jim Byrum (PM) and all members SG Installation, Steve Schneeberger, Bryan Ahee</p> <p>Explanation of Need: Approximately 50 to 75 percent of the Chief Boiler Inspectors have requested some version of the proposed text above to be included in the NBIC Part 1. Since this has not happened, in many jurisdictions the Chief Inspector has had to include requirements for interlocking Carbon Monoxide detectors with boilers to secure the burners when the detector senses CO. The NBIC is a Health and Safety Code and therefore should provide requirements that prevent the many injuries and deaths the Chief Boiler Inspectors across the U.S. have had to investigate.</p>		
<p>July 2025 Meeting Action: Progress report</p> <p>This item is ready for letter ballot between meetings.</p>		

Item Number: 25-03	NBIC Location: Part 1, 1.6.1 & 3.7.7.1	No Attachment
<p>General Description: Create uniformity between sections on requirements for drains and blowoff pipes</p> <p>Subgroup: SG Installation</p> <p>Task Group: T. Clark (PM), J. Choitz, R. Spiker, R. Adams</p> <p>Explanation of Need: Create uniformity between sections on requirements for drains and blowoff pipes</p>		
<p>January 2025 Meeting Action: Progress Report</p> <p>Work continues on this item. Added additional paragraph reference to NBIC Location. Should have a proposal ready for letter ballot between meetings.</p>		

12. New Items:

Item Number: 25-07	NBIC Location: Part 1, S5.7.6 h), Part 4, 2.3.6h)	Attachments page 3
<p>General Description: Organic fluid relief valves are installed with discharge to 55-gallon drum</p> <p>Subgroup: SG Installation</p> <p>Task Group: None assigned.</p> <p>Submitted by: V. Scarcella</p> <p>Explanation of Need: A 55-gallon drum is not designed for the temperatures or pressures of a relief valve discharge</p>		
<p>July 2025 Meeting Action: A motion was made and seconded to accept the attached proposal. After discussion, a vote was taken and the motion unanimously. At MC it was noted that Part 4 paragraph reference should be added and SG/SC PRD should vote on text prior to MC voting.</p>		

Item Number: 25-12	NBIC Location: Part 1, 2.7.5 and 3.7.7.1	No Attachment
<p>General Description: Requirements for drain and blowoff lines</p> <p>Subgroup: SG Installation</p> <p>Task Group: None assigned.</p> <p>Submitted by: J. Choitz</p> <p>Explanation of Need: Create uniformity between sections on requirements for drains and blowoff pipes.</p>		
<p>July 2025 Meeting Action: Closed with no action</p> <p>A motion was made and seconded to close this item with no action. After discussion a vote was taken and unanimously passed. It will be covered under item 25-03.</p>		

Item Number: 25-15	NBIC Location: Part 2, S12.7	No Attachment
<p>General Description: LCDSV Systems: Add Table and Figure</p> <p>Subgroup: SG Installation</p> <p>Task Group: None assigned.</p> <p>Submitted by: M. Byrum</p> <p>Explanation of Need: In accordance with the NBIC Policy For Metrication, metric units need to be shown alongside US customary units. Tables in Part 2, S12.7 will need to match those done under Item 24-56 in Part 1, Table S3.6.1 and Figure S3.6.1-b both show only US customary units. I recommend adding a Table S3.6.1M and Figure S3.6.1-bM to show metric units.</p>		
<p>July 2025 Meeting Action: The NBIC Location and reference was entered incorrectly by the inquirer. This item should be forwarded to SG Inspection for action.</p>		

Item Number: 25-24	NBIC Location: Part 1, 3.8.1.5 and 3.8.2.4	No Attachment
<p>General Description: Clearly state no time delay on the flow switches on a loss of flow.</p> <p>Subgroup: SG Installation</p> <p>Task Group: H. Berny (PM), S. Konopacki, J. Choitz, J. Byrum, J. Kleiss</p> <p>Submitted by: T. Bolden</p> <p>Explanation of Need: One of the primary causes of boiler failure is a low water condition. Time delays in testing these safety controls can complicate their assessment and will not mitigate the failure rates associated with low water conditions. Note this also needs to apply to flow switches on forced flow units.</p>		
<p>July 2025 Meeting Action:</p> <p>A task group was formed to work on this item.</p>		

Item Number: 25-33	NBIC Location: Glossary	Attachments page 4
<p>General Description: Revise definition "Field" in the Glossary of Terms</p> <p>Subgroup: SG Installation</p> <p>Task Group: None assigned.</p> <p>Submitted by: J, Kleiss</p> <p>Explanation of Need: ASME CA-1 Conformity Assessment Requirements is replacing the use of "Temporary Location" with "Secondary Location". The proposed revision is intended to maintain agreement in terminology between NBIC and ASME.</p>		
<p>July 2025 Meeting Action: Inquirer withdrew his inquiry.</p>		

13. Future Meetings

- January 12-15, 2026 – New Orleans, LA

14. Adjournment—Meeting adjourned approximately 2:40 PM

Respectfully submitted,

Thomas P. Beirne
Subcommittee Installation Secretary

Subcommittee Installation Attendance: July 9, 2025

MEMBERS:	Interest Category	In Person	Remote	Not In Attendance
Don Patten	NB Certificate Holders	X		
Stan Konopacki	Users	X		
Robert Black	Manufacturers	X		
Joe Brockman	Authorized Inspection Agencies	X		
Jim Byrum	Authorized Inspection Agencies	X		
Tom Clark	Jurisdictional Authorities		X	
Todd Creacy	Authorized Inspection Agencies			X
J. Matt Downs	Manufacturers	X		
Jeff Kleiss	Manufacturers	X		
H. Michael Richards	General Interest	X		
Robert Smith	General Interest		X	
Ron Spiker	Jurisdictional Authorities	X		
Melissa Wadkinson	Manufacturers	X		
Thomas P. Beirne	Secretary	X		

VISITORS:	Company / Interest	In Person	Remote
Rodger Adams	Zurich		X
Howard Berny	State of Minnesota	X	
Jon Choitz	HSB		X
Luis Ponce	NBBI Staff	X	
Gary Scribner	NBBI Staff	X	
Clayton Collins	CNA Insurance	X	
Jeff Kleiss	Lockinvar	X	
Steve Schneeberger	CNA Insurance	X	
John Hayes	Combustion & Control Solutions	X	
Greg Goosens	NBBI Staff	X	
Iulian Crihan	Quebec		X
Bryan Ahee			X
Andrew Frazier			X
Timothy Sweeney	Pleuenservice co	X	
Ed Verderose		X	

NBIC Interpretation Item I25-11
 Submitted by Christian Hobbs (chobbs@gov.nl.ca)
 4/8/2025



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

Subject:	External Low-Water Fuel Cutoff for Hot Water Heating Boilers
NBIC Location:	2023 NBIC, Part 1, 3.8.2.4 d)
Statement of Need:	The valves proposed are a means to avoid draining the hot water boiler of its water just to test the low water fuel cutoff, we want to verify that they satisfy the requirements of the code.
Background Information:	A client has proposed using these "Test-N-Check" valves that are intended to be installed at the cross in the external piping above and below the low water cutoff device. We are concerned about the longevity and verification of the spring-loaded action to return the valves to normal position after testing the device and are curious if these valves satisfy the automatic return requirement. I will provide an info sheet of the valves in question.
Proposed Question:	Would a spring-loaded flapper "check" valve be considered as a temporary means to isolate the device that will automatically return to its normal position?
Proposed Reply:	Yes - a spring-loaded flap would be considered automatic No - a different method of returning to normal position is considered automatic
Committee's Question:	<Question(s) the committee will interpret. Can be the same wording as the proposed question>
Committee's Reply:	The committee has determined that responding to the question would be considered consulting. Interpretation was closed.
Rationale:	<Additional clarification for response>

NBIC Action Item A25-07

Submitted by Vincent Scarcella (Vincent.scarcella@cna.com)

7/8/2025



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

Subject:	Organic fluid relief valves are installed with discharge to 55 gallon drum
NBIC Location:	2023, Part 1, S5.7.6 h)
Statement of Need:	A 55-gallon drum is not designed for the temperatures or pressures of a relief valve discharge.
Background Information:	We are finding installations with relief valves discharging to 55 Gallon drums.

Proposed Text:

S5.7.6 INSTALLATION

h) The pressure relief valve discharge shall be connected to a closed, steel vented storage catchment tank with solid piping (no drip pan elbow or other air gap). The storage-catchment tank should be located as close to the system as possible, but away from flammable surfaces. Overflow or high level protection should be considered. The capacity and design of the storage catchment tank ~~should~~shall consider the volume and temperature of fluid which may be relieved or sized in accordance with the heater manufacturer's recommendation. Storage-Catchment tanks located outdoors shall be located such that water cannot collect in ~~the vessel~~it. The following shall be considered for discharge piping hazards:

- 1) Both thermal and chemical reactions (personnel hazard);
- 2) Combustible materials (fire hazard);
- 3) Surface drains (pollution and fire hazard); and
- 4) Heat tracing for systems using high freeze point fluids (prevent blockage).

From: [Kleiss, Jeff](#)
To: [Tom Beirne](#)
Subject: RE: inquiry withdrawal
Date: Tuesday, July 8, 2025 1:35:06 PM
Attachments: [image002.png](#)
[image003.png](#)

Tom,

I formally withdraw Item 25-33.

Per discussion in the SG Installation meeting I learned that my request has already been addressed.

Regards,

Jeff Kleiss

Certifications and Standards Manager

A. O. Smith / Lochinvar, LLC

300 Maddox Simpson Parkway • Lebanon, TN

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This week's quote:

"Joy is the will which labors, which overcomes obstacles, which knows triumph."

William Butler Yeats