

Date Distributed:



THE NATIONAL BOARD
OF BOILER AND PRESSURE VESSEL INSPECTORS

NATIONAL BOARD INSPECTION CODE COMMITTEE

MAIN SESSION MINUTES

Meeting of January 16, 2025
Charleston, SC

“These minutes are subject to approval and are for committee use only. 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
FAX: (614)847-1828

1. Call to Order

The Chair, Mr. George Galanes, called the meeting to order at 9:00 a.m. Eastern Time.

2. Introduction of Members and Visitors

Mr. Galanes asked that those attending the meeting in-person introduce themselves, starting with the NBIC Committee membership. Once all in-person introductions were completed, Mr. Galanes asked Mr. Ellis to call on those attending the meeting virtually. A full list of meeting attendees can be found on Attachment Page 1.

3. Check for a Quorum

After the introductions were completed, Mr. Galanes announced that enough Committee members were present to establish a quorum.

4. Awards/Special Recognition

- George Galanes – 25 years on Main Committee
- Venus Newton – 10 years on Main Committee
- Brian Morelock – 10 years on Main Committee
- Marty Toth – 5 years on Main Committee

Mr. Gary Scribner presented award pins to Mr. Galanes and Mr. Newton. He also acknowledged Mr. Morelock and Mr. Toth, as they did not attend the meeting in-person. All four awardees were thanked and congratulated for their years of service and contributions to the NBIC.

5. Announcements

- This meeting marks the end of Cycle A for the 2027 NBIC edition.
- 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. 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.
- Main Committee openings – Main Committee will be considering new membership in the Authorized Inspection Agencies and National Board Certificate Holders categories. Mr. Galanes stated that a vote will be held on the interested candidates during the July 2025 meeting.
- Mr. Galanes thanked National Board staff for their efforts in hosting and facilitating the NBIC Committee meetings.

6. Adoption of the Agenda

Before entertaining a motion to adopt the meeting agenda, Mr. Galanes asked if any revisions needed to be made. Ms. Moore stated that Item 24-82 needed to be added to Subcommittee R&A's list of reported items, in the TG Locomotive section. No further revisions were made. A motion was made and seconded to approve the agenda with the proposed revision. This motion passed unanimously.

7. Approval of the Minutes of the July 2024 Meeting

The minutes are available for review online at <https://www.nationalboard.org/Index.aspx?pageID=13&ID=18>.

A motion was made, seconded, and unanimously approved to accept the minutes from the July 2024 meeting.

8. Items Approved for the 2027 NBIC

As of January 16, 2025, there were two items approved for the 2027 NBIC Edition:

- Item NB15-0307 – Create guidelines for repair of pin devices (Part 4 item)
- Item 22-32 – High pressure limit control requirements for fired jacketed steam kettles (Part 1 item)

9. Report of Subcommittees

a. Subcommittee Pressure Relief Devices

i. Interpretations

Item Number: 24-38	NBIC Location: Part 4, 2.5.4.2 & Part 1, 3.9.1.6 c)	No Attachment
General Description: T&P relief device installation on modular HWH supply header		
Task Group: None assigned.		
Explanation of Need: The NBIC does not address the installation or location of a common T&P valve for modular HWH's. Clarification is needed on whether the common supply header can be considered part of the HWH, and whether T&P valves can be installed in the horizontal position with the outlet pointed down, if installed directly to the header with no more than 4 in. maximum interconnecting piping.		
January 2025 Meeting Action: Mr. Renaldo gave a progress report for this item.		

Item Number: 24-46	NBIC Location: Part 4, 4.3.1 a)	No Attachment
General Description: Replacement of Bodies and Transfer of Nameplates During Repair		
Task Group: None assigned.		
Explanation of Need: Clarity on what defines "the valve". Is "the valve" the nameplate solely or the nameplate and serialized base; and subsequent ability to divorce the nameplate and base during repair when the base requires replacement.		
January 2025 Meeting Action: Mr. Renaldo gave a progress report for this item.		

New Interpretation Requests:

Item Number: 24-87	NBIC Location: Part 4, 4.7.3 a) and b)	No Attachment
General Description: Changes to the original pressure relief device nameplate.		
Task Group: None assigned.		
Explanation of Need: Clarification is needed on the correct way to communicate changes to a relief device through nameplate stamping.		
January 2025 Meeting Action: Mr. Renaldo informed the Committee that this is an intent interpretation item, and that an accompanying action item (25-01) has been opened to revise relevant code language. These items will be presented together once a proposal for 25-01 has been finalized.		

ii. Action Items – Old Business

Item Number: NB15-0305	NBIC Location: Part 4	No Attachment
General Description: Create Guidelines to address Overpressure Protection by System Design.		
Task Group: B. Nutter, A. Renaldo, D. Marek (PM), D. DeMichael, J. Wolf, D. Schirmer		
January 2025 Meeting Action: Mr. Renaldo gave a progress report for this item. A proposal will be balloted to Subgroups Installation, Inspection, and PRD.		

Item Number: NB15-0315	NBIC Location: Part 4, 2.5.6 and 2.6.6 and Part 1, 4.5.6 and 5.3.6	No Attachment
General Description: Review isolation Valve Requirements, and reword to allow installation of pressure relief devices in upstream piping.		
Task Group: D. DeMichael (PM), B. Nutter, A. Renaldo, D. Marek		
January 2025 Meeting Action: Mr. Renaldo gave a progress report for this item.		

Item Number: 19-83	NBIC Location: Part 4, 4.7.5	No Attachment
General Description: Address Alternate Pressure Relief Valve Mounting Permitted by ASME CC2887-1		
Task Group: B. Nutter (PM), T. Patel, J. Ball		
Explanation of Need: ASME Code Case 2887-1 permits the installation of pressure relief valves below a low mass water tube boiler or water heater under certain conditions. This set of conditions and alternate location should be addressed in the NBIC as the use of low mass water tube boilers and water heaters becomes more widespread.		
January 2025 Meeting Action: Mr. Renaldo gave a progress report for this item. The item was also assigned a new project manager.		

Item Number: 21-08	NBIC Location: Part 4, S4.4	No Attachment
General Description: Additional guidance for tank vent repairs		
Subgroup: PRD		
Task Group: B. Nutter (PM), B. Donalson, B. Nutter, K. Beise, J. Grace		
Explanation of Need: The recently approved S4.4, "Weight Loaded Vents," provided new guidance for tank vent repairs. Several additional topics need to be addressed to enhance the guidance. These topics include: 1) Suggested test equipment and configuration for the prescribed tank vent testing. 2) Minimum requirements for replacement parts, 3) Guidance for painting tank vent components.		
January 2025 Meeting Action: Mr. Renaldo gave a progress report for this item.		

Item Number: 22-09	NBIC Location: Part 4, 4.6.1	No Attachment
General Description: Add language to NBIC Part for valves manufactured to Code Case 2787		
Subgroup: PRD		
Task Group: A. Donaldson (PM), H. Cornett, B. Nutter, T. Tarbay, J. Simms		
Explanation of Need: There are no requirements to address valve repairs that were manufactured or assembled to Code Case 2787 (use of more than one certified capacity on the pressure relief valve or the nameplate).		
January 2025 Meeting Action: Mr. Renaldo gave a progress report for this item.		

Item Number: 22-20	NBIC Location: Part 4, 4.7.4	No Attachment
General Description: Inspection and testing of PRV's located above isolation valves.		
Subgroup: PRD		
Task Group: D. Marek (PM), K. Beise, J. Ball, E. Creaser, H. Cornett, A. Renaldo		
Explanation of Need: Add requirement to make sure the internals of a PRV inlet and outlet are inspected when it is tested, and require tests to be done with a pressure vessel with volume.		
January 2025 Meeting Action: Mr. Renaldo gave a progress report for this item.		

Item Number: 23-32	NBIC Location: Part 4, 3.3 and Supp. 6	No Attachment
General Description: Rules for T/O activities related to Nuclear Class Valves		
Subgroup: PRD		
Task Group: E. Creaser (PM), P. Dhobi, D. McHugh, J. Simms		
Explanation of Need: Nuclear facilities that perform repair and T/O activities would by allowing them to use T/O for nuclear class valves that were serviced but not in need of repair but need to be set and sealed again.		
January 2025 Meeting Action: Mr. Renaldo gave a progress report for this item.		

Item Number: 24-35	NBIC Location: Part 4, 4.6.2	No Attachment
General Description: Update Testing of UV-Designated Steam valves on Air to match ASME XIII		
Subgroup: PRD		
Task Group: T. Beirne (PM)		
Explanation of Need: ASME Section XIII Table 3.6.3.1-1 Note 3 permits UV-designated steam valves to be tested using air when the valve is beyond the testing capabilities due to set pressure or capacity. The NBIC only permits steam valves to be tested on air by the owner/user. This should be permitted by any VR shop that has steam test equipment since it is permitted under the rules for new construction.		
January 2025 Meeting Action: Mr. Renaldo gave a progress report for this item.		

iii. New Items:

Item Number: 24-72	NBIC Location: Part 4, 4.3.1	No Attachment
General Description: Add Language to Address Replacement of Valve Bodies and Bases		
Subgroup: PRD		
Task Group: None assigned.		
Explanation of Need: Under the current text of 4.3.1 there are no guidelines for the replacement of valve components to which the original nameplate is attached.		
January 2025 Meeting Action: Mr. Renaldo announced that a task group was assigned to begin work on this item.		

Item Number: 24-91	NBIC Location: Part 4, 3.2.3	No Attachment
General Description: Require means to prevent safety valve discharge piping blockage for LCDSV (Part 4)		
Subgroup: PRD		
Task Group: None assigned.		
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.		
January 2025 Meeting Action: Mr. Renaldo announced that a task group was assigned to begin work on this item.		

Item Number: 24-101	NBIC Location: Part 4, Sections 3 and 4	No Attachment
<p>General Description: Revise NBIC to expand VR and T/O programs beyond ASME Certified Valves</p> <p>Subgroup: PRD</p> <p>Task Group: None assigned.</p> <p>Explanation of Need: The National Board upper management and Board of Trustees have decided to expand the VR and T/O programs to valves that are constructed to standards other than ASME. The proposal file contains changes that would accomplish this goal. Changes to NB-514 and NB-528 will follow.</p> <p>January 2025 Meeting Action: Mr. Renaldo announced that a task group was assigned to begin work on this item.</p>		

Item Number: 24-103	NBIC Location: Part 4, S4.3 f) and S7.2 a) 2)	No Attachment
<p>General Description: Sealing and Tagging of Pilot operated relief valve under VR Program</p> <p>Subgroup: PRD</p> <p>Task Group: None assigned.</p> <p>Explanation of Need: The need for the above change is to have a way to ensure that both the pilot and main valve have been repaired to the requirements of NBIC during the same repair. Currently it is difficult to identify if both components have been repaired during the same repair. This makes it challenging under the T/O program to verify this required information. Additionally, under the current code there is the possibility for a non-accredited repair organization to change the pilot with a set and tested pilot which would have seals and repair the main without disturbing the seals. The previous VR tag would be intact as well as the seals upon completion.</p> <p>January 2025 Meeting Action: Mr. Renaldo informed the Committee that both Subgroup and Subcommittee PRD voted to close this item because it is not the responsibility of the T/O Certificate Holder to verify a VR repair. No additional discussion was held. A motion was made, seconded, and unanimously approved to close this item with no further action.</p>		

b. Subcommittee Installation

i. Interpretations

There are no interpretation items open for Part 1.

ii. Action Items – Old Business

Item Number: 20-86	NBIC Location: Part 1, 2.10.1 a)	Attachment
General Description: Testing and Acceptance: Boiling-out Procedure		
Subgroup: SG Installation		
Task Group: E. Wiggins (PM), D. Patten, S. Konopacki, and R. Spiker.		
January 2025 Meeting Action: Mr. Patten announced that the proposal for this item is ready to be balloted to Main Committee.		

Item Number: 22-28	NBIC Location: Part 1	No Attachment
General Description: Pool Heater definition and requirements		
Subgroup: SG Installation		
Task Group: J. Kleiss (PM), R. Spiker, T. Creacy, and M. Byrum		
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.		
January 2025 Meeting Action: Mr. Patten provided a progress report for this item.		

Item Number: 23-52	NBIC Location: Part 1, 2.5.3.2 and 3.5.3	Attachment
General Description: Harmonize electrical requirements for all types of boilers/water heaters		
Subgroup: SG Installation		
Task Group: T. Clark (PM), S. Konopacki, J. Kleiss, R. Spiker, and John Choitz		
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.		
January 2025 Meeting Action: Mr. Patten announced that the proposal for this item is ready to be balloted to Main Committee.		

Item Number: 24-05	NBIC Location: Part 1, New Supplement	No Attachment
General Description: Add heat pump water heater & heat pump hydronic heater requirements		
Subgroup: SG Installation		
Task Group: J. Kleiss (PM), B. Ahee		
Explanation of Need: Heat pump water heating and hydronic heating are growing in prevalence. Guidance for installation and inspection of these products is needed.		
January 2025 Meeting Action: Mr. Patten provided a progress report for this item.		

Item Number: 24-26	NBIC Location: Part 1, 3.7.8	No Attachment
General Description: NBIC Requirements for ASME Modular Water Heaters		
Subgroup: SG Installation		
Task Group: R. Spiker (PM), M. Byrum, J. Kleiss		
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.		
January 2025 Meeting Action: Mr. Patten provided a progress report for this item.		

Item Number: 24-56	NBIC Location: Part 1, S3.6.1	No Attachment
General Description: LCDSV Systems: Add Table and Figure		
Subgroup: SG Installation		
Task Group: M. Byrum (PM), R. Black		
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.		
January 2025 Meeting Action: Mr. Patten provided a progress report for this item, stating that it is on hold until a Part 2 item is opened to address similar language.		

iii. Action Items – New Business

Item Number: 24-89	NBIC Location: Part 1, S3.6 d)	No Attachment
<p>General Description: Require means to prevent safety valve discharge piping blockage for LCDSV (Part 1)</p> <p>Subgroup: SG Installation</p> <p>Task Group: None assigned.</p> <p>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.</p>		
<p>January 2025 Meeting Action: Mr. Patten stated that Subgroup and Subcommittee Installation both voted to close this item because it is covered by a Part 4 item, Item 24-91. No further discussion was held. A motion was made, seconded, and unanimously approved to close this item with no further action.</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: None assigned.</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>January 2025 Meeting Action: Mr. Patten provided a progress report for this item.</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: None assigned.</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>January 2025 Meeting Action: Mr. Patten provided a progress report for this item.</p>		

c. Subcommittee Inspection

i. Interpretations

There are no open interpretation items for Part 2.

ii. Action Items – Old Business

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)		
Background: In 2016, when this item was first opened, it was assigned as an item for Part 3. Recent discussions with SC R&A and the FRP Task Group have revealed that this item is better suited for Part 2. This item has been approved by the FRP Task Group.		
Scope: The goal of this proposal is to provide a method to evaluate whether the service life of high-pressure fiber reinforced plastic pressure vessels can be extended for an additional lifetime.		
January 2025 Meeting Action: Mr. Horbaczewski provided a progress report for this item.		

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.		
January 2025 Meeting Action: Mr. Horbaczewski provided a progress report for this item.		

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.		
January 2025 Meeting Action: Mr. Horbaczewski provided a progress report for this item.		

SG Inspection Items:

Item Number: 21-47	NBIC Location: Part 2, 2.2.4 & 2.2.5	Attachment Page 36
General Description: To provide better guidance as it relates to carbon monoxide		
Subgroup: Inspection		
Task Group: W. Hackworth (PM), J. Smith, D. Buechel, T. Barker, T. Bolden, M. Sansone, H. Henry, J. Castle, J. Morgan, J. Clark		
Explanation of Need: Need to provide more comprehensive items to be reviewed to guide the inspector on carbon monoxide and combustion air.		
January 2025 Meeting Action: Mr. Horbaczewski stated that the proposal for this item is ready to be balloted to Main Committee.		

Item Number: 22-26	NBIC Location: Part 2, 2.3.6.8	No Attachment
General Description: Addition of cast acrylic as a pressure vessel material		
Subgroup: Inspection		
Task Group: J. Calvert (PM), V. Newton, D. Buechel, D. Rose		
Submitted by: J. Calvert		
Explanation of Need: Provide inspectors with the criteria necessary to competently inspect vessels like acrylic chromatography columns.		
July 2024 Meeting Action: Mr. Horbaczewski announced that both Subgroup and Subcommittee Inspection voted to close this item because the original inquirer felt it was no longer necessary. No further discussion was held. A motion was made, seconded, and unanimously approved to close this item with no further action.		

Item Number: 23-27	NBIC Location: Part 2, 1..1	Attachment
<p>General Description: Addition of requirement for Inspector to be present for inspections.</p>		
<p>Subgroup: Inspection Task Group: V. Newton (PM), V. Scarcella, T. Bolden, J. Morgan, J. Smith, T. Barker, C. Becker, C. Hartford Submitted by: D. Kinney</p>		
<p>Explanation of Need: While it has always been standard industry practice for inspections to be performed in-person, and there are requirements for remote inspection, currently there is no language in Part 2 or RCI-1 requiring the Inspector to be present at the location of installation while performing an inspection. This requirement is implied, but not stated.</p>		
<p>January 2025 Meeting Action: Mr. Horbaczewski presented a proposal for this item. A motion was made and seconded to approve the proposal as presented. During discussion, it was pointed out that the proposal included a new glossary term that the other committees had not seen or discussed in their meetings. Because of this, the motion was amended to only vote on the changes to Part 2, 1.1. The amended motion passed unanimously.</p>		

Item Number: 23-81	NBIC Location: Part 2, 4.4.3 b)	No Attachment
<p>General Description: Evaluate Inspector responsibilities relating to 4.4.3 FFS</p>		
<p>Subgroup: Inspection Task Group: M. Horbaczewski (PM), J. Clark, & B. Ray Submitted by: R. Underwood</p>		
<p>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.</p>		
<p>January 2025 Meeting Action: Mr. Horbaczewski provided a progress report for this item.</p>		

Item Number: 24-03	NBIC Location: Part 2, S6	No Attachment
<p>General Description: Wording Updates for Clarity</p>		
<p>Subgroup: Inspection Task Group: B. Wilson (PM), R. Kennedy, and J. Smith Submitted by: L. Ponce</p>		
<p>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.</p>		
<p>January 2025 Meeting Action: Mr. Horbaczewski provided a progress report for this item.</p>		

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: None assigned.		
Submitted by: V. Scarcella		
Explanation of Need: In some circumstances boilers cannot be shut down and a dead man switch is not allowed.		
January 2025 Meeting Action: Mr. Horbaczewski stated that the proposal for this item will be sent to the Subgroup for Review & Comment.		

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 regards to piping inspections		
Subgroup: Inspection		
Task Group: None assigned.		
Submitted by: V. Scarcella		
Explanation of Need: Two fatal incidents resultant from radiator failure prompted an ask for these changes.		
January 2025 Meeting Action: Mr. Horbaczewski provided a progress report for this item.		

Item Number: 24-62	NBIC Location: Part 2, Section 2	No Attachment
General Description: Temporary Boiler Inspection		
Subgroup: Inspection		
Task Group: None assigned.		
Submitted by: V. Scarcella		
Explanation of Need: No guidance for inspectors for temporary boiler inspections.		
January 2025 Meeting Action: Mr. Horbaczewski provided a progress report for this item.		

iii. New Items:

Item Number: 24-75	NBIC Location: Part 2, Table 2.5.8	No Attachment
General Description: NBIC Part II Review table 2.5.8, suggest changes to align with NBIC Part 4		
Subgroup: Inspection		
Task Group: None assigned.		
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		
January 2025 Meeting Action: Mr. Horbaczewski provided a progress report for this item.		

Item Number: 24-76	NBIC Location: Part 2, S7.9	No Attachment
General Description: Revision to Part 2, S7.9		
Subgroup: Inspection		
Task Group: None assigned.		
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.		
January 2025 Meeting Action: Mr. Horbaczewski provided a progress report for this item.		

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: None assigned.		
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.		
January 2025 Meeting Action: Mr. Horbaczewski provided a progress report for this item.		

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.		
January 2025 Meeting Action: Mr. Horbaczewski provided a progress report for this item.		

Item Number: 24-94	NBIC Location: Part 2, 2.3.6.8	Attachment
<p>General Description: Part 2, 2.3.6.8 ASME PVHO Forms call out the 2016 Edition.</p>		
<p>Subgroup: Inspection Task Group: None assigned. Submitted by: Luis Ponce</p>		
<p>Explanation of Need: It is counterproductive to limit another standard to a specific Edition because revision will be required whenever a new one is issued.</p>		
<p>January 2025 Meeting Action: Mr. Horbaczewski presented a proposal for this item. A motion was made, seconded, and unanimously approved to accept the proposal as presented.</p>		

Item Number: 24-100	NBIC Location: Part 2, Section 5	Attachment
<p>General Description: Add field to NB 6 & NB 7 from JRS Team</p>		
<p>Subgroup: Inspection Task Group: None assigned. Submitted by: V. Scarcella</p>		
<p>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.</p>		
<p>January 2025 Meeting Action: Mr. Horbaczewski and Mr. Scarcella presented the proposal for this item. A motion was made and seconded to approve the proposal as presented. Discussion was held regarding the new disclaimer statement being added to the forms. Several Committee members and National Board staff members requested that this proposal be put on hold to further review the language. The motion was rescinded, and further work will be done on this item.</p>		

Item Number: 24-104	NBIC Location: Part 2, 2.1	No Attachment
<p>General Description: Add language clarifying the limitation of inspections presented by design.</p>		
<p>Subgroup: Inspection Task Group: None assigned. Submitted by: V. Scarcella</p>		
<p>Explanation of Need: Currently an inspector could be held responsible for conditions they could not reasonably access.</p>		
<p>January 2025 Meeting Action: Mr. Horbaczewski provided a progress report for this item.</p>		

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.		
January 2025 Meeting Action: Mr. Horbaczewski provided a progress report for this item, stating that the proposal will be sent to Subcommittee Inspection for Review & Comment.		

d. Subcommittee Repairs & Alterations

i. Old Interpretation Requests:

Item Number: I24-16	NBIC Location: Part 3, 2.5.3 e)	Attachment
General Description: Volumetric Examination when using alternative welding methods without PWHT		
Subgroup: Repairs and Alterations		
Task Group: M. Schaser (PM), T. McBee		
Explanation of Need: The existing language, in its current form, does not make it clear whether volumetric examination is required when using alternative welding methods. The last phrase in the sentence sends the user to paragraph 4.2 which in turn sends the user back to the original code of construction. If a weld greater than 3/8 in. did not require volumetric examination at construction, then what purpose does the last sentence serve? The phrase on the other side of “or” where volumetric examination was required at construction is self-explanatory, but 4.2 permits using alternative NDE methods, suggesting MT or PT. These two methods are currently mandated “shall be” requirements in the first sentence of 2.5.3 e). If the intent is to require volumetric examination for welds greater than 3/8 in., and welds that required volumetric examination at construction, then there should be a firm statement to this effect.		
January 2025 Meeting Action: Mr. Seime presented the proposal for this item. A motion was made, seconded, and unanimously approved to accept the proposal as presented.		

Item Number: I24-19	NBIC Location: Part 3, 4.2	Attachment
<p>General Description: NB-23 2023 Part 3, section 4, article 4.2 - Volumetric NDE on weld</p>		
<p>Subgroup: Repairs and Alterations</p>		
<p>Task Group: L. Dutra (PM), M. Quisenberry</p>		
<p>Explanation of Need: The inquirer has a corroded zone of about 3 feet by 6 feet on a shell and head, and the depth does not exceed the corrosion allowance. The corrosion zone included a weld that was 100% RT. Is it ok with just MT NDE or need also Volumetric NDE of all the buildup area include base metal?</p>		
<p>January 2025 Meeting Action: Mr. Seime presented the proposal for this item. A motion was made, seconded, and unanimously approved to accept the proposal as presented.</p>		

Item Number: I24-25	NBIC Location: Part 3, 4.4.1 e) and 4.4.2 c)	Attachment
<p>General Description: 4.4.1 (e) and 4.4.2 (c) NDE Methods</p>		
<p>Subgroup: Repairs and Alterations</p>		
<p>Task Group: R. Derby (PM), P. Gilston, J. Ferreira</p>		
<p>Explanation of Need: 4.4.1 (e) and 4.4.2 (c) permit the use of NDE to verify the integrity of the repair of alteration. NDE methods other than what is listed in the original code of construction are being used for repair and alterations in some locations throughout the US. For example, Acoustic Emission Testing (AE) in accordance with ASME Section V Article 12 has been used on power boiler (HRSG) repairs. Acoustic Emission Testing is not an NDE method that is addressed in ASME Section I or Section VIII Div.1, but it is an NDE method in the reference code ASME Section V. Some inspectors are questioning this as AE is not an NDE method used in the original code of construction.</p>		
<p>January 2025 Meeting Action: Mr. Seime presented the proposal for this item. A motion was made, seconded, and unanimously approved to accept the proposal as presented.</p>		

Item Number: I24-34	NBIC Location: Part 3, 3.4.1	No Attachment
<p>General Description: Rerating using OEM's design data to waive proof testing</p> <p>Subgroup: Repairs and Alterations</p> <p>Task Group: K. Moore (PM), B. Hrubala</p> <p>Explanation of Need: A PV built in 1990 contains heads made of Class 40 cast iron. The heads were proof tested by the OEM and determined to be suitable for 160 psi MAWP. However, the OEM certified the vessel for only 125 psi due to customer requirements. Fast forward to present day, and the vessel owner now wants to Rerate the vessel to a higher pressure. The OEM is no longer in business, but the 'R' Holder is able to obtain a copy of the original proof test report by the OEM. Can it be acceptable for the 'R' Holder to Rerate the head above 125 psi, based on OEM records stating the design is good for higher pressure, without the 'R' Holder having to perform their own separate proof test?</p> <p>The 'R' Holder would not be using the OEM proof test record for any new manufacturing, only for the purposes of altering an existing vessel or part within the confines of the original design.</p> <p>January 2025 Meeting Action: Mr. Seim announced that both Task Group Interpretations and Subcommittee R&A voted to close this item because it is outside the scope of the NBIC. A motion was made, seconded, and unanimously approved to close this item and send a letter to the inquirer that their inquiry is outside the scope of the NBIC.</p>		

Item Number: I24-36	NBIC Location: Part 3, 3.4	No Attachment
<p>General Description: Alteration of Plate Heat Exchanger</p> <p>Subgroup: Repairs and Alterations</p> <p>Task Group: T. Seime (PM)</p> <p>Explanation of Need: This question is asked frequently by Repair firms that want to increase the number of heat transfer plates.</p> <p>January 2025 Meeting Action: Mr. Seime announced that the task group is still working on this item.</p>		

Item Number: I24-40	NBIC Location: Part 3, 3.3.2 e)	Attachment Page 54
<p>General Description: Routine repair vs Alteration</p> <p>Subgroup: Repairs and Alterations</p> <p>Task Group: M. Carlson (PM), D. Kinney</p> <p>Explanation of Need: Some people use rules of thumb outside of the NBIC definition to make decision, these rules of thumb do not align with the written rules and cause project delays and extended outages.</p> <p>January 2025 Meeting Action: Mr. Seime presented the proposal for this item. A motion was made, seconded, and unanimously approved to accept the proposal as presented</p>		

Item Number: I24-44	NBIC Location: Part 3, 2.5.3	No Attachment
<p>General Description: Alternative weld methods and special services</p> <p>Subgroup: Repairs and Alterations</p> <p>Task Group: R. Derby (PM), P. Gilston</p> <p>Explanation of Need: In section VIII Div.1 construction some special service conditions as described in UW-2 make mandatory PWHT when it is not otherwise required for the actual thickness of material and P-number. This subtlety leads some to believe that the use of the Alternative weld methods is either not allowed or that they can only be conducted as an alteration.</p> <p>January 2025 Meeting Action: Mr. Seime announced that a proposal for this item will be balloted to Task Group Interpretations.</p>		

Item Number: I24-50	NBIC Location: Part 3, 2.2.1 and 2.2.3	No Attachment
<p>General Description: Post Qualification of Welders and WPS/PQR</p> <p>Subgroup: Repairs and Alterations</p> <p>Task Group: K. Moore (PM), B. Hrubala</p> <p>Explanation of Need: There are numerous instances in our organization where welders and WPS/PQR are being qualified after repairs have been done and the equipment were put back into service. The argument they give is that if the results pass then it's acceptable.</p> <p>January 2025 Meeting Action: Mr. Seim announced that both Task Group Interpretations and Subcommittee R&A voted to close this item because the inquirer is asking a consulting question because it falls back on the original code of construction. A motion was made, seconded, and unanimously approved to close this item and send a letter to the inquirer stating that this is a consulting matter.</p>		

ii. New Interpretation Requests:

Item Number: I24-27	NBIC Location: Part 3 (formerly Part 2, 5.2.1)	No Attachment
<p>General Description: Replacement of Repair Nameplate</p> <p>Subgroup: Repairs and Alterations</p> <p>Task Group: None assigned.</p> <p>Explanation of Need: There is a lack of clarity for replacing an Repair Nameplate that has become lost , illegible, or detached, and the stamping/markings required.</p> <p>July 2024 Meeting Action: From Subcommittee Inspection's July 2024 meeting → The SG reviewed this Interpretation, and after a lot of discussion they believe this interpretation should be moved to be a Repairs & Alterations item. The information being questioned is not addressed in Part 2. After discussion, the SC agreed with the SG's decision to move this item to R&A.</p> <p>January 2025 Meeting Action: Mr. Seime stated that this item was closed by TG Interpretations and Subcommittee R&A because the inquirer withdrew the item. A motion was made, seconded, and unanimously approved to close this item with no action.</p>		

Item Number: I24-99	NBIC Location: Part 3, 5.2.2 c)	No Attachment
<p>General Description: Preparation of Form R-2 Construction Scope</p> <p>Subgroup: Repairs and Alterations</p> <p>Task Group: M. Schaser (PM), J. Ferreira</p> <p>Explanation of Need: Disposition if NDE and pressure testing is considered construction activity and R-2 fields "7-b", Construction Certification, and Certificate for Inspection are required.</p> <p>January 2025 Meeting Action: Mr. Seime made a motion to close this item and send a letter to the inquirer stating that Interpretations 01-38 and 01-39, along with revisions coming to the 2025 NBIC, address their inquiry. This motion was seconded and unanimously approved.</p>		

Item Number: I24-107	NBIC Location: Part 3, 3.3.3 j)	No Attachment
<p>General Description: Addition of a nozzle details</p> <p>Subgroup: Repairs and Alterations</p> <p>Task Group: None assigned.</p> <p>Explanation of Need: As this sort of configuration is compliant with the original Code Of Construction and guidance is supplied by an industry-recognized document on repair of pressure equipment, it isn't clear why it would be prohibited. When properly engineered and correctly installed, this sort of alteration could extend the life of damaged vessels.</p> <p>January 2025 Meeting Action: Mr. Seime made a motion to close this item and send a letter to the inquirer stating that their inquiry is a consulting matter. This motion was seconded and unanimously approved.</p>		

iii. Action Items

TG Graphite Items:

Item Number: A24-67	NBIC Location: Part 3, S3.3	No Attachment
<p>General Description: Requirement for G-mark when replacing parts</p> <p>Subgroup: Graphite</p> <p>Task Group: A Viet, J. Wince, S. Mehrez</p> <p>Explanation of Need: Clarifying requirements for use of graphite pressure vessel replacement parts for repairs or alterations.</p> <p>January 2025 Meeting Action: Mr. Viet provided a progress report for the item.</p>		

Item Number: A24-86	NBIC Location: Part 3, S3.3	Attachment
<p>General Description: Increase routine repair limit for graphite nozzles</p> <p>Subgroup: Graphite</p> <p>Task Group: A. Stupica (PM)</p> <p>Explanation of Need: Nozzles of a 10-inch diameter or less are commonly used and easy to handle. There are no major differences in handling/installing nozzles of this sized compared to a 6-inch nozzle.</p> <p>January 2025 Meeting Action: Mr. Viet presented the proposal for this item and explained the reason for the change. A motion was made and seconded to approve the proposal as presented. Ms. Moore mentioned that Subcommittee R&A voted unanimously to approve the proposal. A vote was taken, and the motion passed unanimously.</p>		

TG FRP Items:

There are currently no FRP items open for Part 3.

TG Historical Items:

Item Number: 20-25	NBIC Location: Part 3, S2.13	No Attachment
General Description: Repair Procedure for Fire Boxes		
Subgroup: SG Historical		
Task Group: M. Wahl (PM), R. Forbes, T. Dillon, L. Moedinger, 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.		
January 2025 Meeting Action: Mr. Seime stated that work is still being done on this item.		

TG Locomotive Items:

Item Number: 24-82	NBIC Location: Part 3, S1.1.4	Attachment
General Description: Re-write Part 3, S1.1.4		
Subgroup: Locomotive		
Task Group: L. Moedinger (PM)		
Explanation of Need: ASME Section I, Part PL superseded previous calculations such as the Calculation Compendium referenced in the current wording.		
January 2025 Meeting Action: Mr. Linn Moedinger presented the proposal for this item. A motion was made and seconded to approve the proposal as presented. The motion passed unanimously.		

NR Task Group Items:

Item Number: A23-60	NBIC Location: Part 3, 1.6	No Attachment
General Description: Endorsements required for Nuclear Inspectors based on Category of work		
Subgroup: NR TG		
Task Group: C. Dinic (PM)		
Explanation of Need: Endorsements required for Nuclear Inspectors based on Category of work (1, 2, or 3)		
January 2025 Meeting Action: Mr. Spuhl stated that the proposal is still in development for this item.		

Item Number: A24-09	NBIC Location: Part 3, 1.6.1 – 1.6.5	No Attachment
<p>General Description: Update and revise NR Scope in 1.6.1 - 1.6.5</p> <p>Subgroup: NR TG</p> <p>Task Group: R. Spuhl (PM)</p> <p>Explanation of Need: Scope and update and revision to 1.6.1 - 1.6.5.</p> <p>January 2025 Meeting Action: Mr. Spuhl reported that work is still being done on this item.</p>		

Item Number: A24-83	NBIC Location: Part 3, 1.6.4 d)	Attachment
<p>General Description: Change Part 3, 1.6.4 d) (or elsewhere) to require audits to be performed by Supervisor</p> <p>Subgroup: NR TG</p> <p>Task Group: B. Schaefer (PM)</p> <p>Explanation of Need: Requiring audits to be performed by a supervisor.</p> <p>January 2025 Meeting Action: Mr. Spuhl presented the proposal for this item. A motion was made, seconded, and unanimously approved to accept the proposal as presented.</p>		

Item Number: A24-92	NBIC Location: Part 3, 1.3	Attachment
<p>General Description: NR Inspector and Agency Qualification Reqs in 1.3 - TIED TO A23-60</p> <p>Subgroup: NR TG</p> <p>Task Group: R. Spuhl (PM)</p> <p>Explanation of Need: The NR Program is being revised per A23-60, and this addition will clarify Inspector/Supervisor and Agency requirements for NR activities.</p> <p>January 2025 Meeting Action: Mr. Spuhl presented a proposal for this item. A motion was made and seconded to accept the proposal as presented. During discussion, Mr. Spuhl provided some additional background information on Categories 1, 2, and 3. After discussion, a vote was taken, and the motion was unanimously approved.</p>		

Item Number: A24-95	NBIC Location: Part 3, 5.5 a)	Attachment
<p>General Description: Registration of NR Forms within 30 Days</p> <p>Subgroup: Repairs and Alterations</p> <p>Task Group: R. Spuhl (PM)</p> <p>Explanation of Need: 5.5 a) states repairs and alterations requiring registration must be submitted within 30 days of certification. It is unclear if this requirement applies to repair/replacement activities under the “NR” or “NVR” programs.</p> <p>January 2025 Meeting Action: Mr. Spuhl presented a proposal for this item. A motion was made, seconded, and unanimously approved to accept the proposal.</p>		

SG Repairs & Alterations Items:

Item Number: 21-45	NBIC Location: Part 3, Supplements	No Attachment
<p>General Description: Add a supplement for engineered repairs and alterations</p> <p>Subgroup: Repairs and Alterations</p> <p>Task Group: M. Schaser (PM), B. Boseo, B. Ray, D. Marek, R. Underwood, J. Siefert, P. Becker</p> <p>Explanation of Need: There has been interest from companies operating with the Oil, Gas and Chemical industries to address certain types of repairs that may exist in ASME PCC-2 or API. NBIC does not have many of these repair methods within the book.</p> <p>January 2025 Meeting Action: Ms. Moore gave a progress report for this item.</p>		

Item Number: 21-53	NBIC Location: Part 3, S8.5 a)	No Attachment
<p>General Description: Post Repair Inspection of weld repairs to CSEF steels</p> <p>Subgroup: Repairs and Alterations</p> <p>Task Group: P. Gilston (PM), E. Cutlip, A. Triplett</p> <p>Explanation of Need: The requirement for Inspector involvement in post-repair inspections to CSEF weld repairs is to ensure future safe operation of the boiler. This is a function of the inservice Authorized Inspection Agency, not the Repair Inspector, whose duties end with completion of repair documentation.</p> <p>January 2025 Meeting Action: Ms. Moore stated that work is still being done on this item.</p>		

Item Number: 22-18	NBIC Location: Part 3, 9.1 (and all other Parts)	No Attachment
<p>General Description: Definition of blowdown and blowoff</p> <p>Subgroup: Repairs and Alterations</p> <p>Task Group: K. Moore (PM), M. Quisenberry, G. Scribner, M. Wadkinson</p> <p>Explanation of Need: These terms are not consistently used throughout the industry. This is to provide guidance to use the correct term when addressing the equipment or the action.</p> <p>January 2025 Meeting Action: Ms. Moore made a motion to close the item with no action because definitions are being developed by Gary Scribner and Melissa Wadkinson. The motion was seconded and unanimously approved.</p>		

Item Number: 23-09	NBIC Location: Part 3, New Supplement	No Attachment
<p>General Description: Scope and Rules for use of Additive Manufacturing Pressure Parts</p> <p>Subgroup: Repairs and Alterations</p> <p>Task Group: G. Galanes (PM), J. Siefert, B. Schaefer, W. Sperko, J. Ferreira, J. Getter, T. Seime, M. Wadkinson</p> <p>Explanation of Need: Developing rules for the use of additive manufacturing pressure parts in alterations.</p> <p>January 2025 Meeting Action: Ms. Moore announced that a proposal will be letter balloted to Subcommittee R&A prior to the next meeting.</p>		

Item Number: A23-21	NBIC Location: Part 3, 3.3.4.9	No Attachment
<p>General Description: Boiler tube plug guidelines and inclusion or watertube boilers</p> <p>Subgroup: Repairs and Alterations</p> <p>Task Group: E. Cutlip (PM), P. Gilston, K. Moore, A. Triplett, J. Ferreira</p> <p>Explanation of Need: Currently both firetube and watertube boilers require a boiler tube be plugged when replacement of a tube is not practicable at the time the defective tube is detected.</p> <p>January 2025 Meeting Action: Ms. Moore stated that the task group is still working on a proposal for this item.</p>		

Item Number: A23-24	NBIC Location: Part 3	No Attachment
<p>General Description: Repairs to quick actuating closures</p> <p>Subgroup: Repairs and Alterations</p> <p>Task Group: T. McBee (PM), C. Becker, M. Schaser, A. Khssassi, R. Smith</p> <p>Explanation of Need: Put safe guidelines for repairs to quick actuating closures.</p> <p>January 2025 Meeting Action: Ms. Moore stated that the proposal for this item will be balloted to Subcommittee R&A.</p>		

Item Number: A23-35	NBIC Location: All Parts, 9.1	No Attachment
<p>General Description: Definition of "non-load bearing attachment" (All Parts)</p> <p>Subgroup: Repairs and Alterations</p> <p>Task Group: T. White (PM), A. Khssassi, J. Walker, P. Lentzer</p> <p>Explanation of Need: The term "nonload bearing attachment" is used as a basis for determining a routine repair but is not defined in the NBIC.</p> <p>January 2025 Meeting Action: Ms. Moore stated that the task group is still working on a proposal for this item.</p>		

Item Number: A23-39	NBIC Location: Part 3, 3.3.1	Attachment
<p>General Description: Strengthening Prevention of Defect Recurrence</p> <p>Subgroup: Repairs and Alterations</p> <p>Task Group: J. Ferreira (PM), J. Walker, F. Johnson, P. Gilston, A. Henson, G. Galanes, B. Hrubala</p> <p>Explanation of Need: The existing text recommends, but does not require an investigation of the cause, extent, and likelihood of recurrence of defects. The existing text also has no requirement for anyone to act to prevent the recurrence of defects. Where root and/or proximate causes of defects are known, or could be determined, someone needs to act to prevent catastrophic failure of equipment.</p> <p>January 2025 Meeting Action: Mr. Ferreira presented the proposal for this item. A motion was made and seconded to accept the proposal as presented. This motion was unanimously approved.</p>		

Item Number: A23-40	NBIC Location: Part 3, 3.3.4.1	No Attachment
<p>General Description: Strengthening Requirements to Ensure Defect Removal</p> <p>Subgroup: Repairs and Alterations</p> <p>Task Group: L. Dutra (PM), E. Cutlip, A. Renaldo, R. Valdez, T. McBee, A. Henson</p> <p>Explanation of Need: The existing text alludes to the potential need for nondestructive examination (NDE) to ensure complete removal of defects but does not require it. The means to ensure defects have been removed must be understood by all to ensure safety. There is an interpretation of the 2021 NBIC that compounds this issue permitting repair organizations to not follow the requirements of NBIC Part 3, 3.3.4.8 even when the characteristics of the defect cannot be fully established.</p> <p>January 2025 Meeting Action: Ms. Moore made a motion to close this item with no action because a similar change was approved for inclusion in the 2025 NBIC edition. This motion was seconded and unanimously approved.</p>		

Item Number: A23-61	NBIC Location: Part 3, S9.3	No Attachment
<p>General Description: Revise NBIC R-2 Report and guide</p> <p>Subgroup: Repairs and Alterations</p> <p>Task Group: B. Schaefer (PM), T. LeBeau</p> <p>Explanation of Need: Updates to the R-2 Report and the guide for completing R Report.</p> <p>January 2025 Meeting Action: Ms. Moore stated that the task group is still working on this item.</p>		

Item Number: A23-68	NBIC Location: Part 3, 3.4.4 c) and d)	No Attachment
<p>General Description: Changes to Examples of Alterations</p> <p>Subgroup: Repairs and Alterations</p> <p>Task Group: M. Schaser (PM), T. McBee, P. Becker, L. Baker</p> <p>Explanation of Need: The current wording of 3.4.4.d (2023) is open ended and may result in allowing significant design changes to a pressure vessel under the guise of a repair when an alteration is a more appropriate classification. Rewording is required to limit the scope of potential design changes.</p> <p>January 2025 Meeting Action: Ms. Moore informed the Committee that the task group is still working on this item.</p>		

Item Number: A23-77	NBIC Location: Part 3, 4.2 a)	No Attachment
<p>General Description: Performance of Original NDE During Repairs and Alterations</p> <p>Subgroup: Repairs and Alterations</p> <p>Task Group: A. Triplett (PM), S. Frazier, J. Walker, R. Collins, P. Becker</p> <p>Explanation of Need: The existing language in Part 3, Section 4, Paragraph 4.2.a does not provide enough guidance or flexibility for Repair Organizations and owners to prescribe appropriate NDE for repairs/alterations to existing welds. Based on the limited, often non-specific documentation typically available to these entities during NBIC repairs and alterations, additional allowances and direction should be provided.</p> <p>January 2025 Meeting Action: Ms. Moore informed the Committee that the task group is still working on this item.</p>		

Item Number: A24-11	NBIC Location: Part 3, S9	No Attachment
<p>General Description: Addition of a section on the R-1 Form for "Unresolved Issues"</p> <p>Subgroup: Repairs and Alterations</p> <p>Task Group: M. Quisenberry (PM), T. Seime, T. McBee</p> <p>Explanation of Need: There have been multiple instances discussed during NBIC meetings of Certificate Holders having to leave known defects unrepaired because of the owner/user not wanting to make the repair. This field would allow AIA and Jurisdictional Authorities to be made aware of known and identified issues with a pressure retaining item that were not corrected. Additionally, this provides cover for the Certificate Holder that they identified the defect, brought it to everyone's attention, and the owner/user decided to leave it.</p> <p>January 2025 Meeting Action: Ms. Moore stated that work is still being done on this item.</p>		

Item Number: A24-17	NBIC Location: Part 3, 5.7.5 b)	No Attachment
<p>General Description: Specific Requirements For Stamping And Nameplates</p> <p>Subgroup: Repairs and Alterations</p> <p>Task Group: E. Cutlip (PM), B. Schaefer, A. Khssassi</p> <p>Explanation of Need: 2023 ASME Section VIII-Div 1 UG-119(c)(5) has been revised to allow for the use of mechanical etching or laser annealing on nameplates.</p> <p>January 2025 Meeting Action: Ms. Moore stated that work is still being done on this item.</p>		

Item Number: A24-18	NBIC Location: Part 3, 9.1	No Attachment
<p>General Description: Definition of Controlled Fill</p> <p>Subgroup: Repairs and Alterations</p> <p>Task Group: P. Gilston (PM), A. Triplett, R. Collins, F. Johnson</p> <p>Explanation of Need: Interpretation item I 23-79 addresses the use of the term ‘controlled fill’ in relation to welding method 6. The term is used in 2.5.3 d in relation to welding method 6 and more specifically in Supplement 8. Supplement 8 gives a lot of detail in schematics about a controlled fill in terms of weld bead placement, its use in controlling heat input etc., but in Welding Method 6 the term is not specifically used, but direction for welding is given, typically preheats are specified, electrode size for SMAW, and the use of stringer beads only.</p> <p>January 2025 Meeting Action: Mr. Gilston presented a proposal for this item. A motion was made and seconded to approve the proposal as presented. Discussion was held on the wording of the definition for “Controlled Fill”. After discussion a vote was taken on the motion. The motion failed because many committee members felt that the definition presented in the proposal should match definitions used elsewhere instead of coming up with a new definition. This item will be sent back to Subcommittee R&A for further work.</p>		

Item Number: A24-20	NBIC Location: Part 3, 9.1	No Attachment
<p>General Description: Define "Engineered Repairs" and "Engineered Alterations"</p> <p>Subgroup: Repairs and Alterations</p> <p>Task Group: M. Schaser (PM), B. Ray, R. Underwood, B. Boseo, D. Marek, J. Siefert, P. Becker</p> <p>Explanation of Need: The new supplement dealing with "Engineered Repairs and Alterations" (A21-45) will impact Part 3 Section 1, the NB-415, QRRs, the application process for Certificate Holders, and other documents to be determined. Defining "Engineered Repairs" and "Engineered Alterations" clarify the intent for these new scopes.</p> <p>January 2025 Meeting Action: Ms. Moore gave a progress report for this item.</p>		

Item Number: A24-21	NBIC Location: Part 3, 9.1	No Attachment
<p>General Description: Engineered Repairs and Alterations - Section 1 Scope and Manual reqs</p> <p>Subgroup: Repairs and Alterations</p> <p>Task Group: M. Schaser (PM), B. Ray, R. Underwood, B. Boseo, D. Marek, J. Siefert, P. Becker</p> <p>Explanation of Need: The scope of "Engineered Repairs and Alterations" (A21-45) needs to be clarified in 1.4.1 d) and reflected in the scope statement requirements for manuals in 1.5.1 a).</p> <p>January 2025 Meeting Action: Ms. Moore stated that the task group is still working on a proposal for this item.</p>		

Item Number: A24-60	NBIC Location: Part 3, 3.3.5.2 a) and 3.4.5.1	Attachment
<p>General Description: Revise the repair and alteration Sect VIII Div 2 and 3 paragraphs</p> <p>Subgroup: Repairs and Alterations</p> <p>Task Group: R. Collins (PM), T. LeBeau, A. Triplett</p> <p>Explanation of Need: A revision of Part 3, 3.3.5.2 a) and 3.4.5.1 a), b), and c) are needed to reconcile the NBIC to Divisions 2 and 3 of ASME Section VIII. The attached proposal includes the complete revision draft.</p> <p>January 2025 Meeting Action: Mr. Collins presented a proposal for this item. A motion was made, seconded, and unanimously approved to accept the proposal as presented.</p>		

Item Number: A24-61	NBIC Location: Part 3, 2.5.3 e) and 4.2	No Attachment
<p>General Description: Relocate Volumetric NDE requirement for Weld Repair Greater than 3/8-inch</p> <p>Subgroup: Repairs and Alterations</p> <p>Task Group: M. Schaser (PM), M. Quisenberry, K. Derrick, B. Schaefer</p> <p>Explanation of Need: Relocate the volumetric NDE requirement for weld repairs of 3/8-inch depth or greater from paragraph 2.5.3.e to paragraph 4.2.</p> <p>January 2025 Meeting Action: Ms. Moore made a motion to close this item with no action because Item I24-16 resolves this issue presented in this action item. The motion was seconded and unanimously approved.</p>		

iv. New Items:

Item Number: A24-85 NBIC Location: Part 3, 3.4.4 m)	No Attachment
<p>General Description: Example of alterations to include requalification of cycle life</p> <p>Subgroup: Repairs and Alterations</p> <p>Task Group: None assigned.</p> <p>Explanation of Need: Currently vessels above 10,000 psi are being "requalified" without any code documentation. This puts a conflict between the ASME data report limitations and the actual installation. This practice is being completed without inspector involvement.</p> <p>January 2025 Meeting Action: Ms. Moore made a motion to close this item and inform the inquirer of Interpretations 23-16 and 19-15, along with Part 3, 3.4.5.1. This motion was seconded. During discussion, Mr. Newton commented that it would be better to keep this item open because the code does not address this issue. Ms. Moore agreed, but suggested moving forward with closing until the committee finds the best spot in the code to address this topic. A vote was taken, and the motion passed with one disapproval. The disapproval vote was cast because the voter felt the item should stay open.</p>	
Item Number: A24-93 NBIC Location: Part 3, Supplement 8	Attachment
<p>General Description: Changing Part 3 supplement 8's title for clarity</p> <p>Subgroup: Repairs and Alterations</p> <p>Task Group: P. Shanks (PM)</p> <p>Explanation of Need: Use of pressure equipment is unusual within NB-23 and has cause confusion within the industry as to the applicability for Supplement 8.</p> <p>January 2025 Meeting Action: Mr. Shanks presented a proposal for this item. A motion was made, seconded, and unanimously approved to accept the proposal as presented.</p>	
Item Number: A24-96 NBIC Location: Part 3, 5.5 a)	No Attachment
<p>General Description: Add examples of repairs and alterations specific to Electrochemical Stacks</p> <p>Subgroup: Repairs and Alterations</p> <p>Task Group: A. Triplett (PM)</p> <p>Explanation of Need: With inclusion and initial deployments of electrochemical stacks as U Stamped pressure vessels under ASME BPVC Section VIII Division 1 and Code Case 3078, these stacks are starting to be shipped and registered with the National Board. Some basic examples of allowed repairs are needed to help guide an understanding of limitations for electrochemical stacks.</p> <p>January 2025 Meeting Action: Ms. Moore stated that work is still being done on this item.</p>	

General Description: Review and revise the PWHT Requirements in 2.5.2

Subgroup: Repairs and Alterations

Task Group: P. Gilston (PM)

Explanation of Need: Simplify PWHT requirements in 2.5.2.

January 2025 Meeting Action: Ms. Moore informed the committee that the task group is still working on this item.

10. Liaison Activities

- i. **American Society of Mechanical Engineers BPV Code (ASME BPV)**
 - a. Mr. Gary Scribner and Mr. Brent Ray to provide updates on ASME and PCC-2 activities.
 - i. Mr. Scribner shared that CA-1 is allowing the use of a “vessel” to be dual certified. He provided an example of a vessel built to section 8, but valves built to BPE. This vessel would have the U and BPE designator, which is the first time this is allowed.
 - ii. Mr. Ray – PCC-2 is looking to meet every quarter this year. The committee is working to get things ready for the 2026 edition. He will have further updates at the July meeting.
- ii. **American Welding Society (AWS)**
 - a. Mr. Jim Sekely informed the committee that there are no major updates from AWS at this time.
- iii. **American Petroleum Institute (API)**
 - a. Mr. Brent Ray to provide an update on recent API activities.
 - i. Mr. Ray stated that a new part will be added to FFS in the near future.

11. Future Meetings

- i. July 7-10, 2025 – Cincinnati, OH
- ii. January 12-15, 2026 – New Orleans, LA

12. Adjournment

Mr. Galanes adjourned the meeting at 1:06 p.m. Eastern Time.

Respectfully submitted,

Jonathan Ellis

Jonathan Ellis
NBIC Secretary



*THE NATIONAL BOARD
OF BOILER AND PRESSURE VESSEL INSPECTORS*

**NATIONAL BOARD
INSPECTION CODE
COMMITTEE**

ATTACHMENTS

January 2025 Main Committee Attendance - Members

Last, First	Email	Company Name	In-Person	Remote	Did Not Attend
Galanes, George	ggalanes@diamondtechnicalservices.com	DTS Inc.	x		
Wadkinson, Melissa	melissa.wadkinson@fulton.com	Fulton Thermal Corp	x		
Ellis, Jonathan	jellis@nbbi.org	NBBI	x		
Barker, Tim	timothy.barker@fmglobal.com	FM Global	x		
Beise, Kim	kbeise@dowcovalve.com	Dowco Valve Company Inc		x	
HOPKINS, CRAIG	CHOPKINS@SEATTLEBOILER.COM	Seattle Boiler Works, Inc.	x		
Clark, Tom	thomas.g.clark@dcbs.oregon.gov	State of Oregon	x		
Moore, Kathy	kathymoore@joemoorecompany.com	Joe Moore & Company, Inc.	x		
Morelock, Brian	Poppymorelock@gmail.com	Eastman Chemical Company			x
Newton, Venus	venus.newton@bpcllca.com	BPC/XLIA	x		
Patel, Thakor	thakorpatel1@gmail.com	Consultant		x	
Patten, Donald	dpatten@baycityboiler.com	Bay City Boiler Co., Inc.	x		
Polick, Pat	patrick.polick@illinois.gov	State of Illinois	x		
Ray, Brent	bdray@marathonpetroleum.com	Marathon Petroleum Corporation	x		
Renaldo, Adam	ADAM.RENALDO@LINDE.COM	Linde	x		
Richards, H. Michael	Hmichaelrichards.pe@gmail.com	Southern Company	x		
Schaefer, Ben	bschaefer@aep.com	AEP	x		
Seime, Trevor	tsseime@nd.gov	State of ND	x		
Sekely, Jim	jssekely@comcast.net	Welding Services, Inc.		x	
Simmons, Tim	tsimmons@boilermakers.org	International Brotherhood of Boilermakers	x		
Toth, Marty	mtoth@boiscotraininggroup.com	ECS Consulting & the Boisco Training Group		x	
Underwood, Bob	robert_underwood@hsb.com	HSB	x		
Burpee, John	john.h.burpee@maine.gov	State of Maine	x		

January 2025 Main Committee Meeting Attendance - Visitors

Last, First	Email	Company Name	In-Person	Remote	Did Not Attend
Adams, Rodger	rodger.adams@zurichna.com	Zurich	x		
Ahee, Bryan	bahee@bradfordwhite.com	Bradford White Corporation		x	
Amato, Joel	jamato@nationalboard.org	NBBI	x		
Baker, Lane	LBaker@us.tuv.com	TUV Rheinland AIA services LLC	x		
Barbato, William	bbarbato@travelers.com	Travelers	x		
Barr, Larry	lbarr@propanetank.com	Quality Steel Corporation		x	
Bates, Johnathon	bates@ibb026.org	Boilermakers	x		
Beauregard, Joseph	joeducati@hotmail.com	Los Alamos National Laboratory	x		
Becker, Chuck	hggbecker@yahoo.com	Bureau Veritas	x		
Becker, Pat	pbecker@epri.com	EPRI	x		
Beirne, Thomas	tbeirne@nationalboard.org	NBBI	x		
Berny, Howard	howard.j.berny@state.mn.us	State of MN	x		

Last, First	Email	Company Name	In-Person	Remote	Did Not Attend
Black, Robert	kblackjbc@aol.com	American Boiler Manufacturers Association (ABMA)	x		
Boseo, Brian	bmboseo@burnsmcd.com	Burns & McDonnell Construction			
Brockman, Joe	Ronald.Brockman@FMGlobal.com	FM Insurance			
Burton, Lee	BURTONDL@AIRPRODUCTS.COM	Air Products & Chemicals	x		
Byrum, Marvin "Jim"	marvin.byrum@tuvsud.com	Arise Boiler Inspection and Insurance Co	x		
Carlson, Michael	camx235@lni.wa.gov	State of Washington	x		
Ceccarelli, Ray	raymond.ceccarelli@fmglobal.com	FM	x		
Chatham, Everett	echatham@becht.com	Becht	x		
Cheng, Alex	kinwai.cheng@dot.gov	US DOT PHMSA	x		
Choitz, Jon	jon_choitz@hsb.com	HSB	x		
Collins, Riley	rileycollins@eastman.com	Eastman Chemical Company	x		
Creaser, Eben	eben.creaser@gmail.com	NB Justice and Public Safety	x		
Crockewell, Kristi	kristic@isbservices.com	ISB		x	
Dacanay, Julius	julius.j.dacanay@hawaii.gov	State of Hawaii		x	
Davis, Paul	paul.davis22@woodplc.com	Wood Group USA, Inc.	x		
Derby, Bob	rderby@uanet.org	UA Education and Training Department	x		
Derrick, Kiwi	kiwi.derrick@chevron.com	Chevron	x		
Dutra, Louis	Ldutra@baycityboiler.com	Bay City Boiler	x		
FERREIRA, Jon	jonathan_ferreira@hsb.com	The Harford Steam Boiler Inspection and Insurance Company	x		
Frazier, Steve	steve.frazier@seattle.gov	City of Seattle		x	
Fulford, Daniel	daniel.fulford@inl.gov	Battelle Energy Alliance, LLC	x		
Gilston, Philip	philip_gilston@hsb.com	Hartford Steam Boiler	x		
Goossens, Greg	ggoossens@nbbi.org	National Board of Boiler and Pressure Vessel Inspectors	x		
Graf, Darrell	darrellgraf@bellsouth.net	Retired from APCI	x		
Haney, Clifford	clifford.haney@tuvsud.com	Arise		x	
Hellman, Terrence	thellman@nationalboard.org	National Board	x		
Henson, Adam	adam.henson@csb.gov	U.S. Chemical Safety and Hazard Investigation Board		x	
Horbaczewski, Mark	mhorbaczewski@diamondtechnicalservices.com	Diamond Technical Services	x		

Last, First	Email	Company Name	In-Person	Remote	Did Not Attend
Huntington, John	jhuntington@mwvalve.com	Midwest Valve Services		x	
Kamboj, Rajesh	Rajesh.Kamboj@technicalssafetybc.ca	Technical Safety BC		x	
Khsasssi, Aziz	aziz.khsasssi@rbq.gouv.qc.ca	Régie du bâtiment du Québec	x		
King, John	johnking@chubb.com	Chubb Insurance	x		
Kleiss, Jeff	jkleiss@lochinvar.com	A.O. Smith/Lochinvar		x	
Konopacki, Stan	STANLEY.KONOPACKI@NRG.COM	NRG	x		
LeBeau, Tim	tclebeau@southernco.com	Southern Company Services	x		
Lombardo, Steven	steven.lombardo@ge.com	GE Vernova		x	
Lynch, Daniel	danl@isbservices.com	Industrial Steel & Boiler Services, Inc.		x	
Maher, Thomas	thomas.maher@cityofchicago.org	City of Chicago		x	
Marek, Dan	daniel.t.marek@nasa.gov	Mainthia Technologies Inc	x		
McBee, Timothy	Timothy.McBee@tuvsud.com	ARISE Boiler Inspection and Insurance Company RRG	x		
McGuire, Robert	robert.b.mcguire@ge.com	GE Vernova		x	
McHugh, David	dpmbstrg@outlook.com	D McHugh	x		
Melfi, Teresa	teresa_melfi@lincolnelectric.com	Lincoln Electric	x		
Metzmaier, Jodi	jmetzmaier@nbbi.org	NBBI	x		
Mirjalali, John	jmirjalali@intellihot.com	Intellihot inc.	x		
Moedinger, Linn	linnwm@supernet.com	Strasburg RR		x	
Mooney, Mark	mmooney@nbbi.org	NBBI	x		
Mosley, Darris	Darris_Mosley@oxy.com	Occidental Petroleum	x		
Petersen, Jeff	petejc@inl.gov	Idaho National Laboratory (Battelle Energy Alliance)	x		
Ponce, Luis	lponce@nationalboard.org	National Board of Boiler and Pressure Vessel Inspectors	x		
Quisenberry, Michael	michael@spartan-mech.com	Spartan Boiler	x		
Roberts, James	james.roberts@triarccorp.com	TriArc Tank	x		
Rogers, Christa	crogers@nationalboard.org	NBBI	x		
Ross, William	Wross@pa.gov	Commonwealth of Pennsylvania	x		
Scarcella, Vincent	vincent.scarcella@cna.com	CNA	x		
Schaser, Matt	mschaser@e2g.com	The Equity Engineering Group, Inc.	x		
Schirmer, Del	Del.Schirmer@bpcllca.com	XL Insurance America	x		

Last, First	Email	Company Name	In-Person	Remote	Did Not Attend
Schneeberger, Steve	steve.schneeberger@cna.com	CNA	x		
Scribner, Gary	gscribner@nationalboard.org	NBBI	x		
Shah, M. A.	boilersandpressurevessels9@gmail.com	AIS		x	
Shanks, Paul	paul.shanks@tuvsud.com	ARISE	x		
Siefert, John	jsiefert@epri.com	EPRI	x		
Simms, Jay	jack.simms@bakerhughes.com	Baker Hughes	x		
Speck-Kern, Edward	edward.speck-kern@fpl.com	Florida Power & Light Co.		x	
Spiker, Ronald	ronndj@gmail.com	State of South Carolina	x		
Spuhl, Raymond	raymond_spuhl@hsb.com	The Hartford Steam Boiler Inspection and Insurance Company	x		
Stimson II, Robert	rob.stimson@ks.gov	Kansas / Office of the State Fire Marshal	x		
Sweetland, Matthew	msweetland@plugpower.com	Plug Power, Inc.	x		
Triplett, Andrew	triplettal@ornl.gov	UT-Battelle, LLC		x	
Vandini, Thomas	tvandini@propanetank.com	Quality Steel Corporation	x		
Viers, Robert	rviers@nationalboard.org	National Board of Boiler & Pressure Vessel Inspectors	x		
Viet, Aaron	aaronv@cgthermal.com	CG THERMAL LLC		x	
White, Thomas	thomas.white@nrg.com	NRG Energy	x		
White, Wendy	wwhite@nbbi.org	The National Board of BPVI	x		
Zuberi, Asif	asif.zuberi@technicalsaftybc.ca	BC Safety Authority		x	

NBIC Item # 20-86

NBIC Part 1

Supplement SXX Boil Out and Steam Blow Guidelines

SX Scope

This supplement provides guidelines for boiling out new power boilers, steam heating boilers or unfired steam pressure vessels. It is recommended that newly installed units be boiled out prior to operation. New internal surfaces are subject to oil, grease, and/or other protective coatings, mill scale, rust, welding flux, and/or other foreign material normally associated with the manufacturing process, shipping preparation and installation. All contaminants should be removed as they could lower the heat transfer rate, cause localized overheating, erratic water level control and surging.

- a) Proper boil out procedures and/or recommended chemicals should be obtained from the boiler/pressure vessel manufacturer or a boiler chemical treatment specialist. Safety relief valves must be removed before adding the boil out solution so that neither it nor the grease which it may carry will contaminate the valves. All valves in the piping leading to or from the system must be closed to prevent cleaning solution from getting into the system.
- b) The boiled water should be cooled to 120° F (49° C) and discharged safely in accordance with local, state, and federal guidelines. All procedures should be reported, if required, to the jurisdiction.
- c) New condensate return piping should also be considered due to the possibility of contaminants in the piping. The condensate should be cooled to 120° F (49° C) and drained to ensure the new system piping has been flushed free of debris and is fully clean.
- d) Prior to the commissioning of a steam supply and distribution piping systems, steam blowing may be recommended to be used along with chemical cleaning to remove foreign material remaining after plant erection is completed. To minimize the potential of injury to personnel and damage to equipment, the design and location of the associated piping should be addressed by the designer or installer of the boiler and associated piping.
- e) Existing boilers that have had any tube replacement, re-rolling or other extensive repairs to the pressure parts should also be boiled out. The lubricant used for rolling tubes, plus the protective coating on the new tubes, should be removed by boiling out before the repaired boiler can be put back on the line.

2.5.3 ELECTRICAL

A disconnecting means capable of being locked in the open position shall be installed at an accessible location at the boiler so that the boiler can be disconnected from all sources of potential energy. This disconnecting means shall be an integral part of the boiler or adjacent to it.

2.5.3.1 WIRING

All wiring for controls, heat generating apparatus, and other appurtenances necessary for the operation of the boiler or boilers should be installed in accordance with the provisions of national or international standards and comply with the applicable local electrical codes.

2.5.3.2 REMOTE EMERGENCY SHUTDOWN SWITCHES

~~a) A manually operated remote emergency shutdown switch(es) or circuit breaker shall be located just outside the equipment room door provided and marked for easy identification. Consideration should also be given to the type and location of the switch(es) in order to safeguard against tampering. Where approved by the Jurisdiction, alternate locations of remote emergency switch(es) may be provided.~~

a) The default location for the switch or circuit breaker shall be just outside the boiler room door, though the following factors must be considered when determining the appropriate location and number of switches to be installed:

1) If the equipment room door is on the building exterior, the switch should be located just inside the door.

2) ~~b)~~ For equipment rooms exceeding 500 ft.² (46 m²) floor area or containing one or more boilers having a combined fuel capacity of 1,000,000 Btu/hr. (293 kW) or more, additional manually operated remote emergency shutdown switches shall be located at suitably identified points of egress acceptable to the Jurisdiction.

3) ~~c)~~ Where a boiler is located indoors in a facility and not in an equipment room, a remote emergency shutdown switch shall be located within 50 ft. (15 m) of the boiler along the primary egress route from the boiler area.

4) Additional consideration should be given to the type and location of the switch(es) in order to facilitate proper operation and safeguard against tampering. Where approved by the Jurisdiction, alternate locations of remote emergency switch(es) may be provided.

5) For utility boilers or other large scale units operated from a control room, the switch should be installed in a location immediately accessible to the operator.

~~d) b)~~ For atmospheric-gas burners and for oil burners where a fan is on the common shaft with the oil pump, the emergency remote shutdown switch(es) or circuit breaker(s) must disconnect all power to the burner controls.

~~e) c)~~ For power burners with detached auxiliaries, the emergency remote shutdown switch(es) or circuit breaker(s) need only shut off the fuel input to the burner.

~~f) When existing boiler installations do not include remote emergency shutdown switches, it is not required that these switches be retroactively installed unless required by the Jurisdiction.~~

3.5.3 ELECTRICAL

A disconnecting means capable of being locked in the open position shall be installed at an accessible location at the boiler or water heater so that the boiler or water heater can be disconnected from all sources of potential energy. This disconnecting means shall be an integral part of the boiler or water heater or adjacent to it.

3.5.3.1 WIRING

All wiring for controls, heat generating apparatus, and other appurtenances necessary for the operation of the boiler(s) or water heater(s) should be installed in accordance with the provisions of national or international standards and comply with the applicable local electrical codes.

3.5.3.2 REMOTE EMERGENCY SHUTDOWN SWITCHES~~3.5.3.1 STEAM HEATING, HOT WATER HEATING, AND HOT WATER SUPPLY BOILERS~~

~~a) All wiring for controls, heat generating apparatus, and other appurtenances necessary for the operation of the boiler or boilers shall be installed in accordance with the provisions of national or international standards and comply with the applicable local electrical codes.~~

~~b) A disconnecting means capable of being locked in the open position shall be installed at an accessible location at the boiler so that the boiler can be disconnected from all sources of potential. This disconnecting means shall be an integral part of the boiler or adjacent to it.~~

~~c) A manually operated remote shutdown switch or circuit breaker shall **be located just outside the equipment room door provided** and marked for easy identification. Consideration should also be given to the type and location of the switch to safeguard against tampering.~~

a) The default location for the switch or circuit breaker shall be just outside the boiler room door, though the following factors must be considered when determining the appropriate location and number of switches to be installed:

- 1) ~~d) If the equipment room door is on the building exterior, the switch should be located just inside the door. If there is more than one door to the equipment room, there should be a switch located at each door of egress.~~
- 2) For equipment rooms exceeding 500 ft.² (46 m²) floor area or containing one or more boilers and/or water heaters having a combined fuel capacity greater than or equal to 1,000,000 Btu/hr. (293 kW), additional manually operated remote emergency shutdown switches shall be located at suitably identified points of egress acceptable to the Jurisdiction.
- 3) Where a boiler or water heater is located indoors in a facility and not in an equipment room, a remote emergency shutdown switch shall be located within 50 ft. (15 m) of the boiler along the primary egress route from the equipment area.

4) Additional consideration should be given to the type and location of the switch(es) in order to facilitate proper operation and safeguard against tampering. Where approved by the Jurisdiction, alternate locations of remote emergency switch(es) may be provided.

~~1) b) For atmospheric-gas burners, and oil burners where a fan is on a common shaft with the oil pump, the complete burner and controls should be shut off.~~

~~2) c) For power burners with detached auxiliaries, only the fuel input supply to the firebox need to be shut off.~~

3.5.3.2 POTABLE WATER HEATERS

~~a) All wiring for controls, heat generating apparatus, and other appurtenances necessary for the operation of the potable water heaters shall be installed in accordance with the provisions of national or international standards and comply with the applicable local electrical codes.~~

~~b) A manually operated remote shutdown switch or circuit breaker shall be located just outside the equipment room door and marked for easy identification. Consideration should also be given to the type and location of the switch to safeguard against tampering.~~

~~c) A disconnecting means capable of being locked in the open position shall be installed at an accessible location at the heater so that the heater can be disconnected from all sources of potential. This disconnecting means shall be an integral part of the heater or adjacent to it.~~

~~d) If the equipment room door is on the building exterior, the switch should be located just inside the door. If there is more than one door to the equipment room, there should be a switch located at each door of egress.~~

~~———— 1) For atmospheric-gas burners, and oil burners where a fan is on a common shaft with the oil pump, the complete burner and controls should be shut off.~~

~~———— 2) For power burners with detached auxiliaries, only the fuel input supply needs be shut off.~~

PART 2, SUPPLEMENT 15

Concerns Regarding Carbon Monoxide During Boiler Inspections

S15.1 SCOPE

- a) This supplement provides guidelines for evaluating potential carbon monoxide concerns.
- b) It is well documented and internationally recognized that carbon monoxide is a serious health concern. Annually, there are over 40,000 cases of CO poisoning in North America². Boiler and fired pressure vessel inspections involve equipment that is an exposure to the inspector and occupants of buildings. National Board Inspection Code Part 1 calls for carbon monoxide detectors (NBIC Part 1, 1.6.9) where required. A review of service and maintenance records (NBIC Part 2, 2.2.11), verification that combustion air is supplied to the boiler room (NBIC Part 2, 2.2.20.6 c and NBIC Part 1, 1.6.6) and inspecting for combustion air leaks (NBIC Part 2, 2.2.5 d) are important parts of the inspection that help prevent carbon monoxide from becoming a problem. Installers must follow manufacturers and the jurisdictions requirements for the installation of the equipment.

Commented [JM1]: Typo?

S15.2 Inspection points that should be included in the inspection of the object

- a) Assessment of conditions that may indicate a carbon monoxide condition exists outside of the combustion chamber include but is not limited to the following:
- unstable pilot or main flame
 - Yellow flame
 - Smoke from stack
 - Discoloration around burner or casing
 - The presence of soot on any surface
 - Any flue leakage or blockage
 - Fresh air intake blocked.
 - Negative pressure in boiler room, resistance when you go to open door, air rushes in when you open door.
 - Lack of maintenance on burner/boiler
 - Condensation in boiler room
 - Any changes to the combustion load or reconfigurations that may impact combustion should be considered in the inspection.
- a)b) If leakage of flue gas or in any case a condition indicates a lack of combustion air, the owner or user shall engage a qualified person to investigate and make corrections.

S15.3 Equipment recommended to inspect the objects safely.

- a) It is highly recommended that inspectors carry a carbon monoxide detector. They are inexpensive and easy to use.

[Note 1 https://www.who.int/teams/environment-climate-change-and-health/air-quality-and-health/health-impacts/types-of-pollutants,](https://www.who.int/teams/environment-climate-change-and-health/air-quality-and-health/health-impacts/types-of-pollutants)

[Note 2 https://www.ncbi.nlm.nih.gov/books/NBK430740/](https://www.ncbi.nlm.nih.gov/books/NBK430740/)

Item Number: 23-27
NBIC Location: Part 2, 1.1

General Description: Addition of requirement for Inspector to be present for inspections.
Task Group: V. Newton (PM), V. Scarcella, T. Bolden, J. Morgan, J. Smith, T. Barker, C. Becker, C. Hartford
Submitted by: D. Kinney

Explanation of Need: While it has always been standard industry practice for inspections to be performed in-person, and there are requirements for remote inspection, currently there is no language in Part 2 or RCI-1 requiring the Inspector to be present at the location of installation while performing an inspection. This requirement is implied, but not stated.

PROPOSAL:

1.1 SCOPE

This section provides general requirements and guidelines for conducting inservice inspection of pressure-retaining items and includes precautions for the safety of inspection personnel. The safety of the public and the Inspector is the most important aspect of any inspection activity. In-service inspections shall be conducted on location and in person by the inspector, unless otherwise permitted by the Jurisdiction.

Formatted: No underline

Formatted: No underline



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

Subject:	Part 2, 2.3.6.8 ASME PVHO Forms call out the 2016 Edition.
NBIC Location:	Part 2, 2.3.6.8 e) & 2.3.6.8 g)
Statement of Need:	It is counterproductive to limit another standard to a specific Edition because revision will be required whenever a new one is issued.
Background Information:	An Inservice student at the National Board asked the question, "Why is the NBIC limiting the ASME PVHO standard in the affected paragraphs to the 2016 Edition when Part 2, 1.3 g) does not?" The forms available should reflect the year the PVHO was manufactured, not necessarily the latest version of the form.

Note: an alternate option from my below proposed change would be to insert a statement directing the reader to look for the form corresponding to the year of manufacture.

Proposed Text:

e) Inspection of view ports / windows

- 1) Each window should be individually identified and be marked in accordance with ASME PVHO-1.
- 2) If there are any penetrations through windows, they must be circular in accordance with ASME PVHO-1 requirements.-
- 3) Windows must be free of crazing, cracks and scratches that exceed “superficial” defects as defined by ASME PVHO-2.
- 4) Windows and viewports have a maximum interval for seat/seal inspection and refurbishment. Documentation should be checked to ensure compliance with ASME PVHO-2, Section 2-4.4.
- 5) Windows have a maximum service life ranging from 10 to 20 years depending on the type of window and service conditions.
- 6) Documentation should be checked to ensure compliance with ASME PVHO-2 inspection and refurbishment requirements (ASME PVHO-2-~~2016~~, Tables 2-4.3-1 and 2-4.3-2) and service life limitations (ASME PVHO-2-~~2016~~, Section 2-4.4).

g) Acceptance criteria

The following forms are required to be available for review:

- 1) ASME BPV Forms U-1, U-1A or U-2 as appropriate for vessels built to ASME B&PV Code Section VIII. For vessels built to other rule sets, the equivalent forms shall be available;
- 2) ASME PVHO-1-~~2016~~ Form GR-1 Manufacturer's Data Report for Pressure Vessels for Human Occupancy;
- 3) ASME PVHO-1-~~2016~~ Form VP-1 Fabrication Certification for Acrylic Windows (one for each window);
- 4) ASME PVHO-1-~~2016~~ Form VP-2 Design Certification for Acrylic Windows (one for each window);
- 5) ASME PVHO-2-~~2016~~ Form VM-1 Viewport Inspection (one for each window, current within ASME PVHO-2 inspection interval requirements); and
- 6) For any repaired windows, ASME PVHO-2-~~2016~~ Form VM-2 Acrylic Window Repair Certificate for Windows. Repaired by the User (or his Authorized Agent) or ASME PVHO-2-~~2016~~ Form VM-3 Acrylic Window Repair Certificate for Severely Damaged Windows.

NB-6: The owner or 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 inspection 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 document review.

Commented [JM1]: This is an inspection report, the word "work" may not be appropriate. Comment from Lane Baker.

NB-7: The owner or 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 inspection 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 document review.



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

Subject:	Need to restrict signatures to inspections for which the inspector was present
NBIC Location:	Part 2, 1.5.1
Statement of Need:	It has become practice in one jurisdiction for inspectors to sign inspection reports for apprentices.
Background Information:	

Proposed Text:

The inspector is required to be present during the inspection and should only sign documents pertaining to inspections at which they were in attendance.

**PART 2, SECTION 1
INSPECTION — GENERAL REQUIREMENTS FOR INSERVICE INSPECTION OF
PRESSURE-RETAINING ITEMS**

1.5.1 INSERVICE INSPECTION ACTIVITIES

Any defect or deficiency in the condition, operating, and maintenance practices of a boiler, pressure vessel, piping system, and pressure relief devices noted by the Inspector shall be discussed with the owner or user at the time of inspection and recommendations made for the correction of such defect or deficiency shall be documented. Use of a checklist to perform inservice inspections is recommended. The inspector shall be present during the inspection and shall only sign documents pertaining to inspections which they performed.



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

Subject:	Volumetric Examination when using alternative welding methods without PWHT
NBIC Location:	2023 NBIC Part 3, 2.5.3 e)
Statement of Need:	The existing language, in its current form, does not make it clear whether volumetric examination is required when using alternative welding methods. The last phrase in the sentence sends the user to paragraph 4.2 which in turn sends the user back to the original code of construction. If a weld greater than 3/8 in. did not require volumetric examination at construction, then what purpose does the last sentence serve? The phrase on the other side of “or” where volumetric examination was required at construction is self-explanatory, but 4.2 permits using alternative NDE methods, suggesting MT or PT. These two methods are currently mandated “shall be” requirements in the first sentence of 2.5.3 e). If the intent is to require volumetric examination for welds greater than 3/8 in., and welds that required volumetric examination at construction, then there should be a firm statement to this effect.
Background Information:	A discussion arose during an NBBI examination question review, specifically whether welds greater than 3/8 in. (10 mm) deep or other welds in a pressure retaining item that were originally required to be volumetrically examined by the rules of the original code of construction are required to be volumetrically examined.
Proposed Question:	Is volumetric examination required when using Alternative Weld Methods for welds greater than 3/8 in. or welds that required volumetric examination at construction?
Proposed Reply:	Yes.
Committee’s Question:	Are the requirements for volumetric examination of weld repairs/alterations of cavities with depths 3/8-inch or greater, associated with alternative weld methods without PWHT as described in Part 3 paragraph 2.5.3.e, limited to those listed in Part 3 paragraph 4.2?
Committee’s Reply:	Yes.

<i>Rationale:</i>	Paragraph 2.5.3.e indicates that weld repairs of cavities 3/8-inch or greater require additional examination in accordance with paragraph 4.2. No additional volumetric NDE requirements are listed in 2.5.3.e based on the current edition of NBIC (2025).
--------------------------	---

Interpretation I24-16 Synopsis

2.5.3 ALTERNATIVE WELDING METHODS WITHOUT POSTWELD HEAT TREATMENT

2015

e) Nondestructive Examination of Welds

Prior to welding, the area prepared for welding shall be examined using either the Magnetic Particle (MT) or the Liquid Penetrant (PT) examination method to determine that no defects exist. After the finished weld has reached ambient temperature, and, when required by the specific welding method, the surface temper bead reinforcement layer has been removed substantially flush with the surface of the base metal, the weld shall be examined again by either of the above methods to determine that no defects exist using acceptance standards acceptable to the Inspector or original code of construction. In addition, welds greater than 3/8 in. (9.5 mm) deep or welds in a boiler, pressure vessel, or piping system that were originally required to be radiographed by the rules of the original code of construction, shall be radiographically examined. In situations where it is not practical to perform radiography, the accessible surfaces of each non radiographed repair weld shall be fully examined using the MT or PT method to determine that no defects exist and the maximum allowable working pressure and/or allowable temperature shall be re-evaluated to the satisfaction of the jurisdiction at the location of installation.

2017

e) Nondestructive Examination of Welds

Prior to welding, the area prepared for welding shall be examined using either the Magnetic Particle (MT) or the Liquid Penetrant (PT) examination method to determine that no defects exist. After the finished weld has reached ambient temperature, and, when required by the specific welding method, the surface temper bead reinforcement layer has been removed substantially flush with the surface of the base metal, the weld shall be examined again by either of the above methods to determine that no defects exist using acceptance standards acceptable to the Inspector or original code of construction. In addition, welds greater than 3/8 in. (9.5 mm) deep or welds in a boiler, pressure vessel, or piping system that were originally required to be radiographed by the rules of the original code of construction, shall be radiographically examined. In situations where it is not practical to perform radiography, the accessible surfaces of each non radiographed repair weld shall be fully examined using the MT or PT method to determine that no defects exist and the maximum allowable working pressure and/or allowable temperature shall be re-evaluated to the satisfaction of the jurisdiction at the location of installation.

2019

e) Nondestructive Examination of Welds

Prior to welding, the area prepared for welding shall be examined using either the Magnetic Particle (MT) or the Liquid Penetrant (PT) examination method to determine that no defects exist. After the finished weld has reached ambient temperature, and, when required by the specific welding method, the surface temper bead reinforcement layer has been removed substantially flush with the surface of the base metal, the weld shall be examined again by either of the above methods to determine that no defects exist using acceptance standards acceptable to the Inspector or original code of construction. In addition, welds greater than 3/8 in. (10 mm) deep or welds in a pressure retaining item that were originally required to be volumetrically examined by the rules of the original code of construction, shall be examined in accordance with paragraph NBIC Part 3, 4.2.

2021

e) Nondestructive Examination of Welds

Prior to welding, the area prepared for welding shall be examined using either the Magnetic Particle (MT) or the Liquid Penetrant (PT) examination method to determine that no defects exist. After the finished weld has reached ambient temperature, and, when required by the specific welding method, the surface temper bead reinforcement layer has been removed substantially flush with the surface of the base metal, the weld shall be examined again by either of the above methods to determine that no defects exist using acceptance standards acceptable to the Inspector or original code of construction. In addition, welds greater than 3/8 in. (10 mm) deep or welds in a pressure retaining item that were originally required to be volumetrically examined by the rules of the original code of construction, shall be examined in accordance with paragraph NBIC Part 3, 4.2.

2023

e) Nondestructive Examination of Welds

Prior to welding, the area prepared for welding shall be examined using either the Magnetic Particle (MT) or the Liquid Penetrant (PT) examination method to determine that no defects exist. After the finished weld has reached ambient temperature, and, when required by the specific welding method, the surface temper bead reinforcement layer has been removed substantially flush with the surface of the base metal, the weld shall be examined again by either of the above methods to determine that no defects exist using acceptance standards acceptable to the Inspector or original code of construction. In addition, welds greater than 3/8 in. (10 mm) deep or welds in a pressure retaining item that were originally required to be volumetrically examined by the rules of the original code of construction, shall be examined in accordance with paragraph NBIC Part 3, 4.2.

2025 Proposed Revision

e) Nondestructive Examination of Welds

Prior to welding, the area prepared for welding shall be examined using either the Magnetic Particle (MT) or the Liquid Penetrant (PT) examination method to determine that no defects exist. After the finished weld has reached ambient temperature, and, when required by the specific welding method, the surface temper bead reinforcement layer has been removed substantially flush with the surface of the base metal, the weld shall be examined again by either of the above methods to determine that no defects exist using acceptance standards acceptable to the Inspector or original code of construction. In addition, welds greater than 3/8 in. (10 mm) deep or welds in a pressure retaining item that were originally required to be volumetrically examined by the rules of the original code of construction, shall be examined in accordance with paragraph NBIC Part 3, 4.2.

4.2 NONDESTRUCTIVE EXAMINATION

a) The nondestructive examination (NDE) requirements, including technique, extent of coverage, procedures, personnel qualification, and acceptance criteria, shall be in accordance with the original code of construction for the pressure-retaining item. Weld repairs and alterations shall be subjected to the same nondestructive examination requirements as the original welds. Where this is not possible or practicable, alternative NDE methods acceptable to the Inspector and the Jurisdiction where the pressure-retaining item is installed, where required, may be used.

4.2 NONDESTRUCTIVE EXAMINATION

a) The nondestructive examination (NDE) requirements, including technique, extent of coverage, procedures, personnel qualification, and acceptance criteria, shall be in accordance with the original code of construction for the pressure-retaining item. Weld repairs and alterations shall be subjected to the same nondestructive examination requirements as the original welds. Where this is not possible or practicable, alternative NDE methods acceptable to the Inspector and the Jurisdiction where the pressure-retaining item is installed, where required, may be used.

4.2 NONDESTRUCTIVE EXAMINATION

a) The nondestructive examination (NDE) requirements, including technique, extent of coverage, procedures, personnel qualification, and acceptance criteria, shall be in accordance with the original code of construction for the pressure-retaining item. Weld repairs and alterations shall be subjected to the same nondestructive examination requirements as the original welds. Where this is not possible or practicable, alternative NDE methods acceptable to the Inspector and the Jurisdiction where the pressure-retaining item is installed, where required, may be used.

4.2 NONDESTRUCTIVE EXAMINATION

a) The nondestructive examination (NDE) requirements, including technique, extent of coverage, procedures, personnel qualification, and acceptance criteria, shall be in accordance with the original code of construction for the pressure-retaining item. Weld repairs and alterations shall be subjected to the same nondestructive examination requirements as the original welds. Where this is not possible or practicable, alternative NDE methods acceptable to the Inspector and the Jurisdiction where the pressure-retaining item is installed, where required, may be used, provided that all other requirements of this section are met.

4.2 NONDESTRUCTIVE EXAMINATION

a) Nondestructive examination (NDE) requirements, including technique, extent of coverage, procedures, personnel qualification, and acceptance criteria, shall be in accordance with the original code of construction, standard, or specification selected for the repair or alteration of the pressure-retaining item (see NBIC Part 3, 1.2). Weld repairs and alterations shall be subjected to the same nondestructive examination requirements as the original welds. Where this is not possible or practicable, alternative NDE methods acceptable to the Inspector and the Jurisdiction where the pressure-retaining item is installed, where required, may be used, provided that all other requirements of this section are met.

Where the welds were subject to volumetric NDE during construction, repairs may be made to the base material and weld joints without volumetric examination under the following conditions:

- 1) The repair depth does not exceed the lesser of 1/8 inch (3 mm) or 25% of the nominal base material thickness;
- 2) The aggregate repair length is no longer than 6 inches (150 mm);
- 3) The repair cavity and each layer of deposited weld, including the final weld surface, have been examined by MT or PT.

RD-1000 WELDING METHODS AS ALTERNATIVES TO POSTWELD HEAT TREATMENT

RD-1000 SCOPE

a. Under certain conditions, postweld heat treatment in accordance with the original code of construction may be inadvisable or impractical. In such instances, the following alternative methods may be used.

b. Competent technical advice shall be obtained from the manufacturer of the pressure retaining item or from another qualified source, such advice being especially necessary if the alternative is to be used in highly stressed areas, if service conditions are conducive to stress corrosion cracking, if materials are subject to hydrogen embrittlement or are operating at temperatures in the creep range, or if the alternative is being considered for "on-stream" repairs or "hot tapping" on piping systems. Selection of the welding method used shall be based on the rules of the original code of construction together with the above-mentioned advice concerning the adequacy of the weld in the as-welded condition at operating and pressure test conditions.

c. When reference is made in this part to materials by the ASME designation, P-Number and Group Number, the requirements of this part apply to the applicable materials of the original code of construction, either ASME or other, which conform by chemical composition and mechanical properties to the ASME P-Number and Group Number designation.

RD-1020 NONDESTRUCTIVE EXAMINATION OF WELDS

Prior to welding, the area prepared for welding shall be examined using either the

magnetic particle (MT) or the liquid penetrant (PT) examination method to determine that no defects exist. After the finished repair weld has reached ambient temperature, the weld shall be examined again by either of the above methods to determine that no defects exist using acceptance standards acceptable to the Inspector or original code of construction. In addition, welded repairs greater than 3/8 in. (9.5 mm) deep or welds in a boiler, pressure vessel or piping system that were originally required to be radiographed by the rules of the original code of construction, shall be radiographically examined. In situations where it is not practical to perform radiography the accessible surfaces of each nonradiographed repair weld shall be fully examined using the MT or PT method to determine that no defects exist, and the maximum allowable working pressure and/or allowable temperature shall be reevaluated to the satisfaction of the jurisdiction at the location of installation.

RD-1050 WELDING METHOD 1

a. This method may be used when the applicable rules of the original code of construction did not require notch toughness testing.

b. The materials shall be limited to P-No. 1, Group 1, 2, and 3, and to P-No. 5, Group 1 and 2 (excluding Mn-Mn steels in Group 2), as permitted for welded construction by the applicable rules of the original code of construction.

c. The welding shall be limited to the shielded metal arc welding (SMAW) gas metal arc welding (GMAW) flux cored arc welding (FCAW) and gas tungsten arc welding (GTAW) processes.

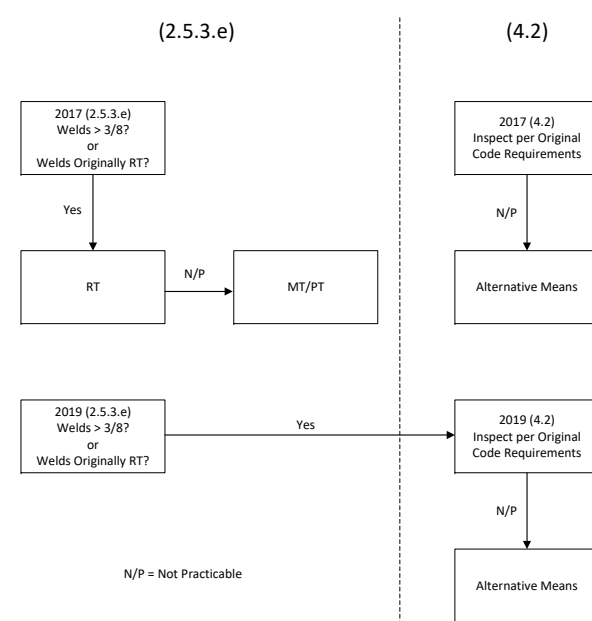
INTERPRETATION 17-13

Subject: Alternative NDE methods acceptable to the Inspector and the Jurisdiction

Edition: 2017

Question: With respect to the RT requirement in 2.5.3.e) is it the intent of the reference to alternative methods acceptable to the original code of construction in paragraph 4.2.a) that UT examination may be used in place of RT examination when the original code of construction allows such examination?

Reply: Yes. These provisions have already been approved and clarified in the upcoming release of the NBIC 2019 Edition.





PROPOSED INTERPRETATION

Item No. 24-19
Subject/Title NB-23 2023 Part 3, section 4, article 4.2 - Volumetric NDE on weld
Project Manager and Task Group Louis Dutra, Michael Quisenberry
Source (Name/Email) Guy Ouellet / Guy.Ouellet@valero.com
Statement of Need Is it ok with just MT NDE or need also Volumetric NDE of all the build up area include base metal.
Background Information We have a corroded zone of about 3 feet by 6 feet on the shell and head and the depth do not exceed the corrosion allowance. The corrosion zone included a weld that was 100% RT.
Proposed Question Does weld buildup of an existing weld subject to volumetric NDT during construction require volumetric NDT if the repair depth is within the corrosion allowance?
Proposed Reply No, provided all three conditions of 4.2 (a), 1,2 and 3 are met.
Committee's Question 1 If weld metal buildup is performed over an existing weld that originally required volumetric examination, is the weld required to meet all requirements of NBIC Part 3, 4.2 a), to be exempted from volumetric NDE?
Committee's Reply 1 Yes.
Rationale
Committee's Question 2
Committee's Reply 2
Rationale



PROPOSED INTERPRETATION

Item No. I24-25
Subject/Title 4.4.1 (e) and 4.4.2 (c) NDE Methods
Project Manager and Task Group: Robert Derby
Source (Name/email) Jon Ferreira / jonathan_ferreira@hsb.com
Statement of Need There seems to be some confusion by inspectors and R certificate holders of what NDE methods are acceptable when NDE is used in lieu of a pressure test. The proposed questions will provide clarity on this matter.
Background Information 4.4.1 (e) and 4.4.2 (c) permit the use of NDE to verify the integrity of the repair of alteration. NDE methods other than what is listed in the original code of construction are being used for repair and alterations in some locations throughout the US. For example, Acoustic Emission Testing (AE) in accordance with ASME Section V Article 12 has been used on power boiler (HRSG) repairs. Acoustic Emission Testing is not an NDE method that is addressed in ASME Section I or Section VIII Div.1, but it is an NDE method in the reference code ASME Section V. Some inspectors are questioning this as AE is not an NDE method used in the original code of construction.
Proposed Question 1 May NDE methods not addressed in the original code of construction be used to verify the integrity of the repair of alteration?
Proposed Reply Yes, provided the NDE method selected can provide meaningful results
Proposed Question 2 If the answer to question 1 is yes, is it required for the NDE method that is selected to have a written procedure following ASME Section V or another recognized national or international standard for the NDE method in question?
Proposed Reply Yes
Proposed Question 3 If an NDE method that is not addressed in the original code of construction is used, do the NDE personnel performing the NDE method need to be certified to a written practice?
Proposed Reply Yes

Committee's Question 1

When using NDE in lieu of pressure testing per NBIC Part 3, 4.4.1 e) and 4.4.2 c), may any NDE method regardless if addressed in the original code of construction be used to verify the integrity of a repair or alteration if the NDE method provides meaningful results and have the acceptance of the Inspector and, where required, the jurisdiction and the owner?

Committee's Reply 1

Yes

Rationale**Committee's Question 2**

If the answer to question 1 is "yes", is it required for the NDE method that is selected to have a written procedure following ASME Section V or another recognized national or international standard for the NDE method in question, and shall the NDE personnel performing the NDE method be certified to a written practice?

Committee's Reply 2

Yes.

Committee's Question 3**Committee's Reply 3**

VOTE							
COMMITTEE	Approved	Disapproved	Abstained	Not Voting	Passed	Failed	Date



PROPOSED INTERPRETATION

Item No. 24-40
Subject/Title Routine repair vs Alteration
Project Manager and Task Group Michael Carlson, Don Kinney, Craig Hopkins
Source (Name/Email) Paul Shanks / paul.shanks@bureauveritas.com
Statement of Need Some people use rules of thumb outside of the NBIC definition to make decision, these rules of thumb do not align with the written rules and cause project delays and extended outages
Background Information Interpretation 19-25 clarifies that the examples of repairs and alteration are not exhaustive, Section 9 of NBIC part 3 provides for definitions of terms- those used for alteration and repair do not always and obviously match the examples.
Proposed Question When replacing 2" tubes in boiler that are attached by welding, provided that the MAWP, Heating surface area and steaming capacity do not change may this activity be considered a routine repair?
Proposed Reply Yes
Committee's Question 1 When the replacement of a tube is not considered to be an alteration by definition or when referencing NBIC Part 3, 3.4, may this activity be considered a Routine Repair?
Committee's Reply 1 Yes, when the applicable requirements in NBIC Part 3, 3.3.2 are met.
Rationale
Committee's Question 2
Committee's Reply 2
Rationale

VOTE:							
COMMITTEE	Approved	Disapproved	Abstained	Not Voting	Passed	Failed	Date

CODE INTERPRETATIONS

Requests for code Interpretations shall provide the following:

a) Inquiry

Provide a condensed and precise question, omitting superfluous background information and, when possible, composed in such a way that a "yes" or a "no" reply, with brief provisos if needed, is acceptable. The question should be technically and editorially correct.

b) Reply

Provide a proposed reply that clearly and concisely answer the inquiry question. Preferably the reply should be "yes" or "no" with brief provisos, if needed.

c) Background Information

Provide any background information that will assist the committee in understanding the proposed Inquiry and Reply Requests for Code Interpretations must be limited to an interpretation of the particular requirement in the code. The Committee cannot consider consulting type requests such as:

A review of calculations, design drawings, welding qualifications, or descriptions of equipment or Parts to determine compliance with code requirements;

A request for assistance in performing any code-prescribed functions relating to, but not limited to, material selection, designs, calculations, fabrication, inspection, pressure testing, or installation; or

A request seeking the rationale for code requirements.

S3.3 ROUTINE REPAIRS

a) The following repairs shall be considered routine, and shall comply with NBIC Part 3, 3.3.2 a), b), and c).

- 1) Machining — routine repair shall not include the machining of pressure-retaining parts with the exception of minor machining for cleaning and joint preparation not to exceed 1/32 in. (0.8 mm) of material thickness.
- 2) Repair of Gasket Surfaces — re-machining of gasket surfaces, re-serrating, or flattening is permitted if the design thickness is maintained.
- 3) Replacing Individual Tubes — drilling out and replacing tubes with new tubes or repaired tubes. Only certified materials shall be used for this repair.
- 4) Nozzle Replacement — complete or partial replacement of nozzles by removing all or a length of the existing nozzle and cementing a new piece in place. This is applicable for nozzles with inside diameters not exceeding ~~10 inches (254 mm)~~ ~~6 inches (152 mm)~~ 6 inches (152 mm).
- 5) Plugging Tubes — plugging individual tubes using accepted procedures.
- 6) Surface Repair — surface repair by installation of plugs or inlay material shall not exceed 1 in.³ (16 cm³) of total volume.
- 7) Replacement or Addition of Non-Load Bearing Attachments to Pressure-Retaining Item — For attachment of non-load bearing attachments to pressure-retaining items, the cementing procedure specification need only be qualified for the pressure part and cement to be used.



Subject:	Rewrite of Part 3, S1.1.4
NBIC Location:	2023 NBIC, Part 3, S1.1.4
Statement of Need:	ASME Section I, Part PL superseded previous calculations such as the Calculation Compendium referenced in the current wording.
Background Information:	The original wording referenced the ESC Calculation Compendium for locomotive boiler calculations. At the time, this was the only place where most locomotive boiler calculations were located. With the publication of Part PL in ASME Section I, Part PL, the Calculation Compendium is no longer needed.

Proposed Text:

S1.1.4 FORMULA AND CALCULATIONS FOR STEAM LOCOMOTIVE BOILERS

a) Most steam locomotive boilers were manufactured in the first half of the 20th century or before. The calculations, formula, and shop practices used are now distant history and quite difficult to obtain. The original rules for riveted construction were last published by ASME in Section I Code, 1971 Edition. Currently, ASME, Section I, Part PR and Part PL, govern riveted construction and steam locomotive boiler construction, and these Parts may be referenced for repairs and alterations if appropriate for the boiler under repair/alteration.

~~b) This supplement herein, is based in part on the ASME Code, Section III, 1952 Edition, which was the last published edition of the Steam Locomotive Code. The railroad industry has attempted to collect the old formula and some shop practices. These have been published by The Engineering Standards Committee for Steam Locomotives, Inc. (ESC) as Compendium, Volume 1, Compilation of Calculations, which may be obtained from the Strasburg Rail Road, P.O. Box 96, Strasburg, PA 17579 (717) 687-7421.~~

~~b) This supplement herein, is based in part on the ASME Code, Section III, 1952 Edition, ASME Section I, Part PL, and established railroad standards.~~

c) When the original code of construction is not known or is not available, the current edition of ASME Section I may be referenced for the majority of locomotive calculations. The original codes of constructions may not have some calculations needed, in which case the current edition of ASME Section I, or the nearest applicable code which postdates the construction, may be used to augment the original code of construction.

d) Allowable stress values for materials are given in or referenced by ASME Section I, all editions. Care shall be taken to ensure the design margin used by a specific edition of the code is the same as that of the original code of construction, or the same as required by the jurisdiction in which the boiler will operate. When in doubt, divide the ultimate tensile strength given in the ASME Code for the material used by the design margin required.



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

Subject:	Change Part 3, 1.6.4 d) (or elsewhere) to require audits to be performed by Supervisor
NBIC Location:	2023 NBIC, Part 3, 1.6.4 d)
Statement of Need:	TBD
Background Information:	TBD

Proposed Text:

1.6.4 OBTAINING OR RENEWING A NATIONAL BOARD “NR” CERTIFICATE OF AUTHORIZATION

d) The “NR” *Certificate of Authorization* holder shall be subject to an audit annually by a Supervisor ANIS-employed by the Authorized ~~Nuclear~~ Inspection Agency to ensure compliance with ~~the all aspects of the~~ Quality Assurance Program. The triennial “NR” Survey will satisfy this requirement in the year performed.

1.3 INSPECTOR

- a) Inspection and certification shall be made by an Inspector holding a valid National Board commission with the “R” endorsement issued by the National Board and employed by an Authorized Inspection Agency in accordance with NB-263, Rules for Commissioned Inspectors (RCI-1) (see NBIC Part 3, Section 9, Glossary of Terms for definition of Authorized Inspection Agency).
- b) An Inspector employed by an Owner-User Inspection Organization or a Federal Inspection Agency may authorize and accept work only on pressure-retaining items owned or used by the respective organization. Each accredited Owner-User Inspection Organization’s quality program shall have specific approval of the Jurisdiction as required.
- c) Inspection and certification of Repair and Replacement activities for Nuclear Items, the Inspector shall:
 - 1) For Category 1, Hold the “N” endorsement in accordance with NB-263, Rules for Commissioned Inspectors (RCI-1), and be employed by an Authorized Inspection Agency.
 - 2) For Category 2, Hold the “I” endorsement in accordance with NB-263, Rules for Commissioned Inspectors (RCI-1), and be employed by an Authorized Inspection Agency.
 - 3) For Category 3, Hold qualifications required by the Regulatory Authority. The Inspector shall be employed by an Authorized Inspection Agency or an inspection agency appointed or accepted by the Regulatory Authority having jurisdiction over the facility.

1.3.1 SUPERVISOR

- a) Inspectors shall be supervised by an individual holding a valid National Board commission with the “R” endorsement as required above.
- b) Supervisor of Inspectors performing inspection and certification of Repair and Replacement activities of Nuclear Items shall:
 - 1) For Category 1 - Hold a “NS” endorsement and be employed by an Authorized Inspection Agency in accordance with NB-263, Rules for Commissioned Inspectors (RCI-1).
 - 2) For Category 2 - Hold a “NSI” endorsement and be employed by an Authorized Inspection Agency in accordance with NB-263, Rules for Commissioned Inspectors (RCI-1).
 - 3) For Category 3 - Hold qualifications required by the Regulatory Authority. The Supervisor shall be employed by an Authorized Inspection Agency or an inspection agency appointed or accepted by the Regulatory Authority having jurisdiction over the facility.

1.3.2 AUTHORIZATION

- a) The Inspector’s authorization to perform a repair or alteration shall be obtained by the repair organization prior to initiation of a repair or alteration to a pressure-retaining item. The Inspector shall determine that the repair or alteration methods are acceptable.
- b) Subject to acceptance of the Jurisdiction, the Inspector may give approval for routine repairs prior to the start of work, provided the Inspector ensures that the “R” Certificate Holder has adequately addressed routine repairs in the quality program.

c) The Inspector's authorization shall be obtained by the "NR" Certificate Holder prior to initiation of repair and replacement activities to nuclear items. The Inspector shall determine that the repair and replacement methods are acceptable.

1.3.3 INSPECTIONS AND CERTIFICATIONS

- a) Inspections and certification of NBIC Form R Reports shall be performed by the same Inspector who authorized the repair or alteration, or repair and replacement activity. Where this is not possible or practicable, another Inspector may perform these duties; however, in all cases, duties associated within the same scope of work shall be performed by Inspectors employed by the same Authorized Inspection Agency.
- b) Before signing the appropriate NBIC Form R Report, the Inspector shall verify all applicable Inspector duties have been performed as required in NB-263, RCI-1.




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

Subject:	Changing Part 3 supplement 8's title for clarity
NBIC Location:	2023 NBIC, Part 3, Supplement 8
Statement of Need:	Use of pressure equipment is unusual within NB-23 and has cause confusion within the industry as to the applicability for supplement 8.
Background Information:	The first sentence of s8.1 a) talks to PRI's and the final sentence talks about situations not covered under weld methods 6 or 7 which are limited to boiler only.

Proposed Text:

**SUPPLEMENT 8
WELD AND POST REPAIR INSPECTION OF CREEP STRENGTH ENHANCED
FERRITIC STEEL PRESSURE-~~RETAINING ITEMS EQUIPMENT~~**

PROPOSED REVISION OR ADDITION

Item No. A 23-39	
Subject/Title Strengthening Prevention of Defect Recurrence	
NBIC Location Part: Repairs and Alterations; Section: 3; Paragraph: Paragraph 1 (3.3.1)	
Project Manager and Task Group Jon Ferreira (PM), Tom White, Jamie Walker and Adam Henson	
Source (Name/Email) Adam Henson / adam.henson@csb.gov	
Statement of Need The existing text recommends, but does not require an investigation of the cause, extent, and likelihood of recurrence of defects. The existing text also has no requirement for anyone to act to prevent the recurrence of defects. Where root and/or proximate causes of defects are known, or could be determined, someone needs to act to prevent catastrophic failure of equipment.	
Background Information On April 3, 2017, an explosion occurred at the Loy-Lange Box Company in St. Louis, Missouri. The incident occurred when the bottom head of a pressure vessel called a semi-closed receiver (SCR), which was used in the company's steam generation system, catastrophically failed. The SCR was launched in the air as the result of the explosion and landed on a neighboring business. One employee of the Loy Lange Box Company and three members of the public were fatally injured. The U.S. Chemical Safety and Hazard Investigation Board (CSB) investigated this incident and learned during the investigation that the SCR was repaired by an R stamp organization in 2012 five years prior to the incident. During the repair, a wasted area of the bottom head of the SCR was flush patched. The cause of the defect was determined to be oxygen pitting corrosion. Evidence gathered during the investigation suggests that the defects in the head were not fully removed during the repair activity. The R stamp organization stated during the investigation that Loy-Lange requested an "emergency repair" following the discovery of a leak from the SCR. The R stamp organization stated further that they interpreted this to mean the repair needed to be completed immediately, presumably so production could resume as normal. This was not the first time the SCR leaked. The vessel leaked previously in April 2004, August 2012, and November 2012. In addition to causing these leaks oxygen pitting corrosion was also discovered in other parts of Loy Lange's steam system. During the investigation, the CSB noted that no effort was made to determine the extent of the oxygen pitting corrosion in the steam generation system, including the SCR, and that Loy Lange's operating practices up to the date of the incident were such that oxygen levels within the steam generation system were not effectively managed. Had the level of oxygen within the steam generation system been effectively managed following any of the leaks repaired over the years the 2017 incident would not have happened. Full details of the Loy-Lange Box Company Pressure Vessel Explosion are available at this link: https://www.csb.gov/loy-lange-box-company-pressure-vessel-explosion/	

Existing Text

3.3.1 DEFECT REPAIRS

Before a repair is made to a defect in a welded joint or base metal, care should be taken to investigate its cause and to determine its extent and likelihood of recurrence.

Proposed Text

3.3.1 DEFECT REPAIRS

Prior to repairing a defect in a welded joint or base metal, it is important to investigate the cause, assess the extent, and evaluate the likelihood of recurrence. A condition assessment may be part of this process and may be conducted by the owner or user, the equipment manufacturer, the repair organization, or another technically competent source. For repairs involving complex defects, a more comprehensive condition assessment method may be required, including an engineering evaluation performed by a competent technical source. Guidance for performing condition assessments is available in NBIC Part 2, Section 4.4. For repair methods that do not fully remove the defect, refer to NBIC Part 3, Supplement 11, S11.2.2.

VOTE:							
COMMITTEE	Approved	Disapproved	Abstained	Not Voting	Passed	Failed	Date



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

PROPOSED REVISION OR ADDITION

Item No. A24-60	
Subject/Title Revise the repair and alteration Sect VIII Div 2 and 3 paragraphs	
NBIC Location [2025 Edition] Part 3, Supplement 11 - Engineered Repairs and Alterations, S11.2.3 & S11.3.2 [2023 Edition] Part 3, 3.3.5 & 3.4.5	
Project Manager and Task Group R. Collins (PM), T. LeBeau, A. Triplett	
Source (Name/Email) Luis Ponce / LPonce@nbbi.org	
Statement of Need A revision of Part 3, Supplement 11 - Engineered Repairs and Alterations, S11.2.3 & S11.3.2 is needed to reconcile the NBIC to Divisions 2 and 3 of ASME Section VIII.	
Background Information The requirements and terminology for vessel design personnel in ASME Section VIII Division 2 changed in the 2019 and later Editions, and there are different requirements in Divisions 2 and 3 for certifying the UDS and MDR. In addition, in discussion with Mark Lower (ASME BPV VIII Subgroup on Design), upcoming changes to Divisions 1, 2, and 3 will explicitly eliminate "responsible charge" from these codes, thus removing an existing pathway for Jurisdictions to mandate additional qualification requirements for such personnel based on the NCEES and NSPE documents defining this term. This Item also incorporates changes to reflect approved Interpretation 07-16.	
Existing Text See next page	Proposed Text See next page

COMMITTEE	VOTE:				Passed	Failed	Date
	Approved	Disapproved	Abstained	Not Voting			

Existing Text (2025 Edition)	Proposed Text
<p>S11.2.3 REPAIR OF ASME SECTION VIII, DIVISION 2 OR DIVISION 3 PRESSURE VESSELS</p> <p>a) Scope</p> <p>The following requirements shall apply for the repair of pressure vessels constructed to the requirements of Section VIII, Division 2 or Division 3 of the ASME Code.</p> <p>b) Repair Plan</p> <p>The user shall prepare, or cause to have prepared, a detailed plan covering the scope of the repair.</p> <p>1) Engineer Review and Certification</p> <p>The repair plan shall be reviewed and certified by an engineer meeting the criteria of ASME Section VIII, Division 2 or Division 3, as applicable, for an engineer signing and certifying a Manufacturer's Design Report. The review and certification shall ensure the work involved in the repair is compatible with the User's Design Specification (UDS) and the Manufacturer's Design Report. The certifying requirement may be waived for ASME Section VIII, Division 2, Class 1 vessels that did not require the Manufacturer's Design Report to be certified during initial construction.</p> <p>If the UDS is lost or destroyed, the ASME nameplate and the applicable ASME Section VIII, Division 2 or Division 3 Manufacturer's Data Report, Partial Data Reports, and/or Manufacturer's Design Report shall be used to reconstruct the UDS. The reconstructed UDS shall meet the requirements of and be certified in accordance with the latest edition of ASME Section VIII, Division 2 or Division 3.</p> <p>2) Authorized Inspection Agency Acceptance</p> <p>After the repair plan is reviewed and certified, it shall be submitted for acceptance to the Authorized Inspection Agency/Owner-User Inspection Organization employing the Inspector performing the acceptance inspection and signing the Form R-1.</p>	<p>S11.2.3 REPAIR OF ASME SECTION VIII, DIVISION 2 OR DIVISION 3 PRESSURE VESSELS</p> <p>a) Scope</p> <p>The following requirements shall apply for the repair of pressure vessels constructed to the requirements of Section VIII, Division 2 or Division 3 of the ASME Code.</p> <p>b) Repair Plan</p> <p><u>Prior to the commencement of work,</u> The user shall prepare, or cause to have prepared, a detailed plan covering the scope of the repair.</p> <p>1) Engineer-Review and Certification</p> <p>The repair plan shall be reviewed and certified by <u>a person or persons an engineer</u> meeting the <u>requirements criteria of the original code of construction ASME Section VIII, Division 2 or Division 3, as applicable, for a designer, engineer, or Certifying Engineer an engineer</u> signing and certifying a Manufacturer's Design Report. The review and certification shall ensure the work involved in the repair is compatible with the User's Design Specification (UDS) and the Manufacturer's Design Report. The certifying requirement may be waived for ASME Section VIII, Division 2, Class 1 vessels that did not require the Manufacturer's Design Report to be certified during initial construction.</p> <p>If the UDS is lost or destroyed, the ASME nameplate and the applicable ASME Section VIII, Division 2 or Division 3 Manufacturer's Data Report, Partial Data Reports, and/or Manufacturer's Design Report shall be used to reconstruct the UDS. The reconstructed UDS shall meet the requirements of and be certified in accordance with the latest edition of ASME Section VIII, Division 2 or Division 3.</p> <p><u>Note: Additional design personnel requirements or qualifications specified by the user or jurisdiction are outside of the scope of this Supplement.</u></p> <p>2) Authorized Inspection Agency Acceptance</p> <p>After the repair plan is reviewed and certified, it shall be submitted for acceptance to the Authorized Inspection Agency/Owner-User Inspection Organization employing the Inspector performing the acceptance inspection and signing the Form R-1.</p>
<p>S11.3.2 ALTERATION OF ASME SECTION VIII, DIVISION 2 OR DIVISION 3, PRESSURE VESSELS</p> <p>a) Alteration Plan</p> <p>1) Engineer Review and Certification</p> <p>a. The alteration plan shall be reviewed and certified by an engineer meeting the criteria of ASME Section VIII, Division 2 or Division 3, as applicable, for an engineer signing and certifying a Manufacturer's Design Report. The review and certification shall ensure the work involved in the alteration is compatible with the UDS and the Manufacturer's Design Report.</p> <p>b. Provided the alteration does not introduce a condition that would require an engineer to sign the Manufacturer's Design Report for ASME Section VIII, Division 2, Class 1 vessels, the certifying requirement may be waived for vessels that did not require the Manufacturer's Design Report to be certified during initial construction.</p> <p>c. If the UDS is lost or destroyed, the ASME nameplate and the applicable ASME Section VIII, Division 2 or Division 3 Manufacturer's Data Report, Partial Data Reports, and/or Manufacturer's Design Report shall be used to reconstruct the UDS. The reconstructed UDS shall meet the requirements of and be certified in accordance with the latest edition of ASME Section VIII, Division 2 or Division 3.</p>	<p>S11.3.2 ALTERATION OF ASME SECTION VIII, DIVISION 2 OR DIVISION 3, PRESSURE VESSELS</p> <p>a) Alteration Plan</p> <p>1) Engineer-Review and Certification</p> <p>a. Prior to the commencement of work, <u>The</u> alteration plan shall be reviewed and certified by <u>a person or persons an engineer</u> meeting the <u>requirements criteria of the original code of construction ASME Section VIII, Division 2 or Division 3, as applicable, for a designer, engineer, or Certifying Engineer an engineer</u> signing and certifying a Manufacturer's Design Report. The review and certification shall ensure the work involved in the alteration is compatible with the <u>User's Design Specification (UDS)</u> and the Manufacturer's Design Report.</p> <p>b. Provided the alteration does not introduce a condition that would require an engineer to sign the Manufacturer's Design Report for ASME Section VIII, Division 2, Class 1 vessels, the certifying requirement may be waived for</p>

Formatted: Font: Bold

Formatted: Font: Not Bold

Formatted: Font: (Default) Arial, 8.5 pt

Formatted: Normal, Indent: Left: 0.3", Hanging: 0.19", No bullets or numbering

<p>2) UDS</p> <p>If the alteration is such that the work is not compatible with, or changes one or more requirements of the original UDS, the UDS shall be revised by the user with the new parameters or changes. The revisions shall be certified by an engineer meeting the criteria of ASME Section VIII, Division 2 or Division 3, as applicable, for an engineer signing and certifying a Manufacturer's Design Report.</p> <p>Note: The engineer qualification criteria of the jurisdiction where the pressure vessel is installed should be verified before selecting the certifying engineer.</p> <p>3) Manufacturer's Design Report</p> <p>a. The "R" Certificate Holder shall prepare, or cause to have prepared, a supplement to the Manufacturer's Design Report to reconcile the new parameters or changes with the UDS.</p> <p>b. The supplement to the Manufacturer's Design Report shall be certified by an engineer meeting the criteria of ASME Section VIII, Division 2 or Division 3, as applicable, for an engineer signing and certifying a Manufacturer's Design Report.</p> <p>Note: The engineer qualification criteria of the jurisdiction where the pressure vessel is installed should be verified before selecting the certifying engineer.</p> <p>4) Authorized Inspection Agency Acceptance</p> <p>Following review and certification, the alteration plan shall be submitted for acceptance to the Authorized Inspection Agency/Owner-User Inspection Organization whose inspector will perform the acceptance inspection and sign the Form R-2.</p>	<p>vessels that did not require the Manufacturer's Design Report to be certified during initial construction.</p> <p>2) UDS</p> <p>If the alteration is such that the work is not compatible with, or changes one or more requirements of the original UDS, the UDS shall be revised by the user with the new parameters or changes. If the code of construction requires certification of the UDS, the revisions shall be certified by a person or persons an engineer meeting the requirements criteria of the original code of construction ASME Section VIII, Division 2 or Division 3, as applicable, for a designer, engineer, or Certifying Engineer an engineer signing and certifying a UDS Manufacturer's Design Report.</p> <p>Note: Additional design personnel requirements or qualifications specified by the user or jurisdiction are outside the scope of this Supplement.</p> <p>3) Manufacturer's Design Report</p> <p>a. The "R" Certificate Holder shall prepare, or cause to have prepared, a supplement to the Manufacturer's Design Report to reconcile the new parameters or changes with the UDS.</p> <p>b. The supplement to the Manufacturer's Design Report shall be certified by a person or persons an engineer meeting the requirements criteria of the original code of construction ASME Section VIII, Division 2 or Division 3, as applicable, for a designer, engineer, or Certifying Engineer an engineer signing and certifying a Manufacturer's Design Report.</p> <p>Note: Additional design personnel requirements or qualifications specified by the user or jurisdiction are outside the scope of this Supplement. The engineer qualification criteria of the jurisdiction where the pressure vessel is installed should be verified before selecting the certifying engineer.</p> <p>4) Authorized Inspection Agency Acceptance</p> <p>Following review and certification, the alteration plan shall be submitted for acceptance to the Authorized Inspection Agency/Owner-User Inspection Organization whose inspector will perform the acceptance inspection and sign the Form R-2.</p>
---	--

Formatted: Don't add space between paragraphs of the same style

Formatted: Font: (Default) Arial, 8.5 pt

Formatted: Normal, Indent: Left: 0.49"

Formatted: Font: (Default) Arial, 8.5 pt, Bold

Formatted: Don't add space between paragraphs of the same style



Subject:	Registration of NR Forms within 30 Days
NBIC Location:	2023 NBIC, Part 3, 5.5 a)
Statement of Need:	5.5 a) states repairs and alterations requiring registration must be submitted within 30 days of certification. It is unclear if this requirement applies to repair/replacement activities under the “NR” or “NVR” programs.
Background Information:	Removing the words, "performing a repair or alteration" from 5.5 a) would then include registration requirements for repair/replacement activities under the “NR” or “NVR” programs referenced in 5.5.4. 5.5.4 states, "Organizations performing repair/replacement activities under the “NR” or “NVR” stamp program shall register forms with the National Board."

Proposed Text:

5.5 REGISTRATION OF FORMS — GENERAL

- a) When registration of the forms is required, the Certificate Holder ~~performing a repair or alteration~~ shall submit the completed form, meeting the requirements of the NBIC, to the National Board no more than 30 days following certification.
- b) When registration of the forms is not required, the Certificate Holder may register the completed form, meeting the requirements of the NBIC, with the National Board.
- c) The “R” or “NR” Certificate Holder should be aware that some Jurisdictions may require registration of repairs and alterations with the National Board.