Date Distributed: June 27, 2023

THE NATIONAL BOARD
OF BOILER AND PRESSURE VESSEL INSPECTORS

NATIONAL BOARD INSPECTION CODE TASK GROUP INTERPRETATIONS

AGENDA

Meeting of July 10, 2023
St. Louis, MO

The National Board of Boiler & Pressure
Vessel Inspectors 1055 Crupper Avenue
Columbus, Ohio 43229-
1183
Phone: (614)888-8320
FAX: (614)847-1828

1. **Call to Order**
   The Chair will call the meeting to order at 1:00 p.m. Central Time. For those attending in person, the meeting will be held in Home Plate at the hotel.

2. **Roll call of Members and introduction of Visitors**

3. **Check for a Quorum**

4. **Awards/Special Recognition**

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

6. **Adoption of the Agenda**

7. **Approval of the Minutes of the January 8th, 2023 Meeting**
The minutes are available for review on the National Board website, www.nationalboard.org.

8. **Review of Rosters**
   a. **Membership Nominations**
   None

   b. **Membership Reappointments**
      i. The following Interpretations Task Group memberships are about to expire prior to the January 2024 NBIC meeting: Mr. George Galanes.

   c. **Officer Nominations**

9. **Interpretations**

New Interpretation Requests:

Item Number: I23-10	**NBIC Location: Part 3, 3.3.4.6 and 3.4.3**	**Attachment Page 2**

General Description: Seamless Head Flush Patch - Repair vs Alteration

Subgroup: Repairs and Alterations

Task Group: B. Boseo (PM), L. Dutra, B. Schaefer

Explanation of Need: Is the use of a flush patch on the center portion of a seamless head of an ASME Sect. VIII Div. 1 vessel considered a repair or alteration per the 2011 NBIC?

July 2023 Meeting Action:

Item Number: I23-11	**NBIC Location: Part 3, 5.1 and 5.11**	**Attachment Page 3**

General Description: Correcting duplicate nameplate that is not affixed to directly the vessel

Subgroup: Repairs and Alterations

Task Group: M. Quisenberry (PM), R. Derby

Explanation of Need: Part 3 seems to contain no method for correcting errors on a name plate. Section 5 is not clear on what requirements apply to a duplicate name plate when the actual name plate is still affixed to the vessel and hidden under insulation. Since the duplicate name plate is not the actual name plate and is not affixed directly to the ASME pressure vessel, an R stamp holder should not be required to correct or replace a duplicate name plate. If a duplicate name plate were welded directly to the vessel, one could argue that Part 3 applies since interaction with the vessel could be required.

July 2023 Meeting Action:

Item Number: I23-15 **NBIC Location: Part 3, 3.3.2** **Attachment Page 4**

General Description: Routine Repairs Using Parts With Different Nominal Composition

Subgroup: Repairs and Alterations

Task Group: T. McBee (PM), M. Schaser

Explanation of Need: As written, Paragraph 3.3.2 implies that routine repairs require repair or replacement with "like material"...as in 3.3.3 r). This is supported by Interpretation 01-19. Allowing "material upgrades"...as in 3.3.3 s)...will reduce costs and labor associated with the growing number of repairs requiring in-process inspection and stamping due solely to material availability.

July 2023 Meeting Action:

Item Number: I23-20 **NBIC Location: Part 3, 3.3.4.8** **Attachment Page 5**

General Description: Boiler tube plug installation time consideration

Subgroup: Repairs and Alterations

Task Group: M. Quisenberry (PM), L. Dutra

Explanation of Need: 3.3.4.8 does imply that the defect should be known in regards to characteristics such as orientation, nature, depth, configuration but does not fully state this.

January 2023 Meeting Action:

Item Number: I23-47 **NBIC Location: Part 3, 3.4.4 d)** **Attachment Page 6**

General Description: Interpretation of Alteration for dimensional change.

Subgroup: Repairs and Alterations

Task Group: None assigned.

Explanation of Need: The inquirer is looking to change a vessel nozzle flange from 150# to 300# to allow them to increase the torque value to reduce flange leaks that have been occurring.

January 2023 Meeting Action:

Item Number: I23-48	NBIC Location: Part 3, 3.3.2	Attachment Page 7

General Description: Plugging of tube hole without welding.

Subgroup: Repairs and Alterations

Task Group: None assigned.

Explanation of Need: An Air-Cooled Heat Exchanger where the tube was expanded to the tube sheet needs to be repaired due to a tube leak. The repair will be done by plugging without removing the tube from the tube sheet. Is this considered a Routine Repair?

January 2023 Meeting Action:

10. Future Meetings

- January 8-11, 2024 – Charlotte, NC
- July 2024 – TBD

11. Adjournment

Respectfully submitted,

Terrence Hellman

Terrence Hellman, TG Interpretations Secretary

Task Group Interpretations (Repairs/Alterations)

Last Name	First Name	Interest Category	Role	Exp. Date	More
Seime	Trevor	Jurisdictional Authorities	Chair	07/30/2024	Details
Kinney	Donald	Jurisdictional Authorities	Vice Chair	01/30/2025	Details
Hellman	Terrence		Secretary	12/30/2099	Details
Boseo	Brian	General Interest	Member	07/30/2024	Details
Carlson	Michael	Jurisdictional Authorities	Member	01/30/2025	Details
Derby	Robert	Labor	Member	07/30/2025	Details
Ferreira	Jonathan	Authorized Inspection Agencies	Member	01/30/2026	Details
Galanes	George	Users	Member	07/30/2023	Details
Gilston	Philip	Authorized Inspection Agencies	Member	01/30/2025	Details
McBee	Timothy	Authorized Inspection Agencies	Member	07/30/2024	Details
Moore	Kathy	National Board Certificate Holders	Member	07/30/2024	Details
Quisenberry	Michael	National Board Certificate Holders	Member	07/30/2024	Details
Schaser	Matt	National Board Certificate Holders	Member	01/30/2026	Details
Toth	Marty	General Interest	Member	01/30/2025	Details

PROPOSED INTERPRETATION

Item No.

23-10

Subject/Title

Seamless Head Flush Patch - Repair vs Alteration

Project Manager and Task Group

Source (Name/Email)

Terrence Hellman / thellman@nationalboard.org

Statement of Need

Is the use of a flush patch on the center portion of a seamless head of an ASME Sect. VIII Div. 1 vessel considered a repair or alteration per the 2011 NBIC?

Background Information

A seamless bottom head of a vertical ASME Sect. VIII Div. 1 vessel is corroded and needs to be repaired per the 2011 NBIC. The “R” Certificate Holder will use a full penetration flush patch to replace the center corroded area of the head (in lieu of replacing the entire head). As a result of the flush patch, there is now a weld seam in a previously “seamless” head. Since welding will be performed on the head, the required thickness may be affected because the possible reduction in joint efficiency due to the new seam on the patch, and the strength and composition of the weld metal. Consequently, the repair organization has the responsibility to consider all design aspects. Per the 2011 NBIC, 3.4.3, Examples of Alterations: h) Replacement of a pressure-retaining part in a pressure-retaining item with a material of different allowable stress or nominal composition from that used in the original design;

Proposed Question

Question 1 When replacing any part of a seamless head with a full penetration flush patch, is the repair organization responsible for any changes in design? Question 2 Is the use of a flush patch on a seamless head an Alteration?

Proposed Reply

Reply 1 Yes. Reply 2 Yes.

Committee's Question 1
When replacing any part of a pressure retaining item, in an ASME Section VIII Div. 1 pressure vessel with a full penetration flush patch, is the repair organization responsible for any changes in design?

Committee's Reply 1

Yes

Rationale

Committee's Question 2

Is the installation of a full penetration flush patch in an ASME Section VIII Div. 1 pressure vessel considered an Alteration?

Committee's Reply 2

No, provided the original design requirements are satisfied.

Rationale

PROPOSED INTERPRETATION

Item No.

23-11

Subject/Title

Correcting duplicate nameplate that is not affixed to directly the vessel

Project Manager and Task Group

Source (Name/Email)

Adam Renaldo / adam_renaldo@praxair.com

Statement of Need

Part 3 seems to contain no method for correcting errors on a name plate. Section 5 is not clear on what requirements apply to a duplicate name plate when the actual name plate is still affixed to the vessel and hidden under insulation. Since the duplicate name plate is not the actual name plate, and is not affixed directly to the ASME pressure vessel, an R stamp holder should not be required to correct or replace a duplicate name plate. If a duplicate name plate were welded directly to the vessel, one could argue that Part 3 applies since interaction with the vessel could be required.

Background Information

During inspection, a vessel was found with a duplicate ASME name plate that incorrectly indicated the MDMT. A check of the U-1A form, and communication with the manufacturer, confirmed that the duplicate name plate had a typo that requires correction. The actual ASME name plate is welded directly to the vessel and hidden under insulation. The duplicate is welded to a support leg.

Proposed Question

(1) Does the correction or replacement of a duplicate ASME name plate with a typographical error fall under the scope per Section 5.1 when the duplicate name plate is not affixed directly to the pressure vessel? (2) Does the NBIC contain any procedures for correcting a typographical error on a duplicate ASME nameplate that is affixed to a structural support or non-pressure-retaining part of the ASME pressure vessel? (3) Do the requirements of Section 5.11 apply to the correction or replacement of an inaccurate duplicate ASME nameplate that is affixed to a structural support or non-pressure-retaining part of the ASME pressure vessel? (4) Do the requirements of Section 5.11 apply to the correction or replacement of an inaccurate ASME name plate or duplicate name plate that is affixed directly to the pressure vessel?

Proposed Reply

(1) No (2) No. If a duplicate name plate is not affixed directly to the pressure vessel, corrections of typographical errors on the duplicate name plate fall outside the scope of Part 3 and are left to the discretion of the owner working in conjunction with the manufacturer. (3) No (4) Yes

Committee's Question 1

Committee's Reply 1

Rationale

Committee's Question 2

Committee's Reply 2

PROPOSED INTERPRETATION

Item No.

23-15

Subject/Title

Routine Repairs

Project Manager and Task Group

Source (Name/Email)

Mark Kincs / mark.r.kincs@xcelenergy.com

Statement of Need

As written, Paragraph 3.3.2 implies that routine repairs require repair or replacement with "like material"...as in 3.3.3 r). This is supported by Interpretation 01-19. Allowing "material upgrades"...as in 3.3.3 s)...will reduce costs and labor associated with the growing number of repairs requiring in-process inspection and stamping due solely to material availability.

Background Information

Oftentimes, original materials of construction are no longer available or cost-prohibitive to obtain. Replacement of pressure-retaining components with those of different nominal composition is commonplace. The required in-process Inspector involvement and stamping of these common repairs is believed unnecessary.

Proposed Question

May repair or replacement of tubes, pipes, butt-welded fittings, or nonload bearing attachments with a code-acceptable material having a nominal composition and strength equivalent to or greater than the original material with equal-or-greater material thickness, that is suitable for the intended service, be considered a routine repair if the requirements of NBIC Part 3, 3.3.2 and the categories of 3.3.2 e) are met?

Proposed Reply

Yes, with concurrence of the Inspector and Jurisdiction, as applicable.

Committee's Question 1

1: May the replacement or repair of a pressure-retaining item using code-acceptable material suitable for the intended service, that has a different nominal composition, strength and thickness equivalent to or greater than the original material, be considered a routine repair if it meets the requirements of NBIC Part 3, 3.3.2 and one or more of the categories listed in 3.3.2 e)?

Committee's Reply 1

1: Yes

Rationale

2021 NBIC Part 3, 3.3.3, r) and 3.3.3, s), Interpretation 21-08.

Committee's Question 2

Committee's Reply 2

Rationale

PROPOSED INTERPRETATION

Item No.

23-20

THE NATIONAL BOARD OF BOILER AND PRESSURE VESSEL INSPECTORS

Subject/Title

Boiler tube plug installation time consideration

Project Manager and Task Group

Source (Name/Email)

David Starr / dave.starr@starrcompanies.com

Statement of Need

No specific guidance is provided within the code in regard to the length of time a boiler tube plug can be left in place. Agreement by owner, inspector, and when required, Jurisdiction is ambiguous.

Background Information

Currently owners, inspectors, repair companies and Jurisdictions are applying this rule inconsistently. Often boiler tube (s) remain plugged for the life of the boiler and in some Jurisdictions this is an acceptable practice. In other cases plugged boiler tubes are required to be removed as soon as possible. Currently inconsistency in the industry is causing confusion.

Proposed Question

May a boiler be returned to service permanently with plugged tubes if agreed upon by the owner, the inspector, and when required, the Jurisdiction?

Proposed Reply

No, a plugged tube or tubes is not considered a permanent repair.

Committee's Question 1

Does the NBIC specify the time period a boiler may be placed back in service after firetubes are plugged per NBIC Part 3, 3.3.4.9?

Committee's Reply 1

No.

Rationale

Committee's Question 2

Committee's Reply 2

Rationale

PROPOSED INTERPRETATION

Item No.

23-47

Subject/Title

Interpretation of Alteration for dimensional change.

Project Manager and Task Group

Source (Name/Email)

Corey Mccon / cmccon@cfindustries.com

Statement of Need

Just need some clarification as we have gotten conflicting responses from different parties.

Background Information

We are looking to change a vessel nozzle flange from 150# to 300# to allow us to increase the torque value to reduce flange leaks that have been occurring.

Proposed Question

Section 3.4.4 d) states an example of an alteration is a change in the dimensions or contour of a pressure retaining item. Would this include a change a flange OD? For example if you are changing a nozzle flange from a 150# flange to a 300# flange would that fall under this section due to the added flange thickness and OD, even though the ID is remaining the same.

Proposed Reply

Yes.

Committee's Question 1

Committee's Reply 1

Rationale

Committee's Question 2

Committee's Reply 2

Rationale

PROPOSED INTERPRETATION

Item No.

23-48

Subject/Title

Plugging of tube hole without welding.

Project Manager and Task Group

Source (Name/Email)

Djoni Pratomo / djoni_pratomo@yahoo.com

Statement of Need

Paragraph 3.3.3.f of NBIC Part 3 describes only when welding is involved.

Background Information

This question is different from Interpretation No 21-17, Question No 2, where the tube was removed and can not be considered as Routine Repair.

Proposed Question

An Air Cooled Heat Exchanger where the tube was expanded to the tube sheet needs to be repaired due to a tube leak. The repair will be done by plugging without removing the tube from the tube sheet. Is this considered as Routine Repair?

Proposed Reply

Yes.

Committee's Question 1

Committee's Reply 1

Rationale

Committee's Question 2

Committee's Reply 2

Rationale