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THE NATIONAL BOARD OF BOILER AND PRESSURE VESSEL INSPECTORS

## NATIONAL BOARD INSPECTION CODE TASK GROUP INTERPRETATIONS

# AGENDA

Meeting of July 11<sup>th</sup>, 2022 Indianapolis, IN

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 1:00pm Eastern Time. For those attending in person, the meeting will be held in Fletcher Place on the second floor of 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 6:30pm to 8:30pm in City Way Gallery.
- The National Board will be hosting breakfast and lunch on Thursday. Breakfast will be served from 7:00am to 8:00am, and lunch will be served from 11:30am to 12:30pm. Both meals will be served at the hotel in Market Table.
- This meeting is the last at which items can be approved for inclusion in the 2023 NBIC edition.

### 6. Adoption of the Agenda

7. Approval of the Minutes of the January 17<sup>th</sup>, 2022 Meeting The minutes are available for review on the National Board website, <u>www.nationalboard.org</u>. The

#### 8. Review of Rosters

- a. Membership Nominations None
- **b.** Membership Reappointments None
- c. Officer Nominations

#### 9. Interpretations

Item Number: I20-78	NBIC Location: Part 3, 3.3.3 s) & 3.4.4 d)	No Attachment
General Description: Repa	irs and Alterations of Tube Bundles	
Subgroup: Repairs and Alte	erations	
Task Group: Paul Shanks		
<b>Explanation of Need:</b> Submission is for R Certific seems to allow to be a repair an alteration.)	eate Holders we provide Repair Inspection services for r, but under 3.4.4 d) where the dimensions change it n	NBIC Part 3, 3.3.3 s) night be classified as
July INT TG Action: P. Sh is resolved.	nanks presented that this is still being held back. Prog	ress Report till 21-12
July Meeting Action: P. Shi is resolved.	nanks presented that this is still being held back. Prog	gress Report till 21-12
January INT TG 2022 Me Progress Report till 21-12	eting Action: P. Shanks presented that this is still bein is resolved.	ng held back.
Itom Number: 121_39	NRIC Location: Part 3 3 3 2 a)	Attachment Page 1

General Description: Routine repair scope

**Subgroup:** Repairs and Alterations

Task Group: P. Shanks (PM), P. Gilston

#### **Explanation of Need:**

Some R-certificate holders and AIAs are making huge (100 square feet) weld metal buildup type routine repairs on the basis that the components being built up are only 5" tubes and 3.3.2 e) 1) says welded repairs to 5" tubes are routine. As 3.3.2 e) includes "shall be limited to" shouldn't exceeding any one of the listed limitations preclude the routine repair approach.

**INT TG January 2022 Meeting Action:** P. Shanks presented and issues with weld buildup vs corrosion resistance weld overlay and what is a routine repair to pipe < 5" per 3.3.2 e). The proposal was revised, and a Committee's question and answer were drafted. The proposal was Approved. M. Toth abstained.

Item Number: I21-60NBIC Location: Part 3, 3.4.5.1 b)Attachment Page 2

General Description: UDS requirements for repairs and alterations for Divisions 2 & 3

**Subgroup:** Repairs and Alterations

Task Group: G. Galanes (PM), B. Morelock

#### **Explanation of Need:**

Is it the intent of interpretation 19-14 to prohibit the R-Certificate holder from recreating a UDS while still allowing the user to create the UDS? If yes, could the R-Certificate holder serve as the user's designated agent to recreate the UDS? Although this interpretation applies specifically to alterations, would this interpretation also be applicable to performing repairs (see 3.3.5.2(a))?

**INT TG January 2022 Meeting Action:** G. Galanes presented. B. Morelock indicated that Division 3 requirements may have an impact on this item and will hold it back to make changes. **This was a PR**.

Item Number: I21-75	NBIC Location: Part 3, 3.3.2 e) 1)	Attachment Page 3
General Description: Routi	ne Repairs	
	_	

Subgroup: Repairs and Alterations

Task Group: C. Hopkins (PM), S. Frazier

#### **Explanation of Need:**

The wording "but does not include nozzles to pressure-retaining items" could lead into interpreting the nozzle as a whole including the joint attaching the nozzle to the PRI.

**INT TG January 2022 Meeting Action:** Neither Mr. Hopkins or Mr. Frazier were present to report on the item. **This was a PR** 

Item Number: I21-79	NBIC Location: Part 3, 3.3.3(h)(2)	Attachment Page 4
<b>General Description:</b> M	echanical Replacement of Shell or Head	
Subgroup: Repairs and A	Alterations	
Task Group: B. Schaefe	r (PM), M. Quisenberry	
<b>Explanation of Need:</b> This interpretation and corresponding Code revision (A21-80) would provide clarity to NBIC users and address whether mechanical replacement of these components is considered a repair.		
INT TG January 2022 N	Meeting Action: M. Quisenberry presented a PR	

**New Interpretation Requests:** 

Item Number: I22-14	NBIC Location: Part 3, 3.2.2 b) and c)	Attachment Page 5
General Description: Ov	erlaid Replacement Parts	
Subgroup: Repairs and A	lterations	
Task Group: T. McBee (	PM), M. Carlson	
<b>Explanation of Need:</b> Re report that have been insp part under paragraph 3.2.2 Panels made from Overlai overlay, where the overlay considered part of the stre replacement parts under p boiler tubes in the waste to <b>July 2022 Meeting Actio</b>	placement parts that are documented using a Man ected by an Authorized Inspector may still be sup (b) and therefore not require a Hydro test per Par- d tubes and for single overlaid tube Dutchman the v is not considered to be pressure retaining when the ngth of the boiler tube per ASME Section I PW-4 aragraph 3.2.2 b). The purpose of the overlay is to be energy corrosive environment from external we <b>n:</b>	aufacturer's Partial Data plied as a replacement agraph 3.2.2 e). at contain only weld the overlay is not 14. May be supplied as be extend the life of ar.

## 10. Future Meetings

- January 2023 Charleston, SC
- July 2023 TBD

## 11. Adjournment

Respectfully submitted,

Terrence Hellman

Terrence Hellman TG Interpretations Secretary





## THE NATIONAL BOARD SINCE 1919 OF BOILER AND PRESSURE VESSEL INSPECTORS

Item No.
21-60
Subject/Title
UDS requirements for repairs and alterations for Divisions 2 & 3
Project Manager and Task Group
Source (Name/Email)
Mark Lower / lowermd@ornl.gov
Statement of Need
Is it the intent of interpretation 19-14 to prohibit the R-Certificate holder from recreating a UDS while still allowing the user to create the UDS? If yes, could the R-Certificate holder serve as the user's designated agent to recreate the UDS? Although this interpretation applies specifically to alterations, would this interpretation also be applicable to performing repairs (see 3.3.5.2(a))?
Background Information
Interpretation 19-14 states a UDS cannot be recreated when lost/destroyed. It is not clear how repair organizations will comply with the requirements of 3.4.5.1(a). However, it appears the user would be allowed to alter an existing UDS based on current parameters as noted in
3.4.5.1(b).
Proposed Question
Q: May a User's Design Specification be generated for the purpose of ASME Section VIII Div 2 or Div 3 vessel repairs or alterations by the user or their designated agent in the event the original UDS was lost/destroyed?
Proposed Reply
A: Yes
Committee's Question 1
Committee's Reply 1
Rationale
Committee's Question 2
Committee's Reply 2
Rationale



Item No.
21-75
Subject/Title
Routine Repairs
Project Manager and Task Group
Source (Name/Email)
Logan Somers / Isomers@harder.com
Statement of Need
The wording "but does not include nozzles to pressure-retaining items" could lead onto interpreting the nozzle as a whole including the joint attaching the nozzle to the PRI.
Background Information
When discussing scheduling of repairs this information is used by the owner to determine when the unit may be brought down for repair based on the availability of the Inspector.
Proposed Question
May the identical replacement of a waisted flange at the end of a nozzle off a PRI be considered a routine repair in accordance with the requirements of 3.3.2 when only the flange is replaced and not the joint attaching the nozzle to the PRI?
Proposed Reply
Νο
Committee's Question 1 May the identical replacement in kind of a waisted flange at the end of a nozzle, NPS 5 (DN 125) in diameter or smaller, off attached to a PRI be considered a routine repair in accordance with the requirements of Part 3 Section 3.3.2 (e) (1) when neither postweld heat treatment nor NDE other than visual is required and only the flange is replaced and not the joint attaching the nozzle to the PRI?
Committee's Reply 1
Yes
Rationale
The replaced flange would be considered a fitting in the category of Part 3 Section 3.3.2 (e) (1).
Committee's Question 2
Committee's Reply 2
Rationale



## THE NATIONAL BOARD SINCE 1919 OF BOILER AND PRESSURE VESSEL INSPECTORS

Item No.
21-79
Subject/Title
Pechanical Replacement of Shell or Head
Project Manager and Task Group
Source (Name/Email)
Robert Underwood / robert_underwood@hsb.com
Statement of Need
This interpretation and corresponding Code revision would provide clarity to NBIC users and address whether mechanical replacement of these components is considered a repair.
Background Information
There are two conflicting NBIC interpretations relating to mechanical replacement of parts. Interpretation 01-29 states that NBIC neither requires
replacement of pressure retaining components in ASME Section VIII, Division a repair activity, 19-11 cites paragraph 3.3.3
design. It does not specify whether head was replaced by welding or mechanical attachment.
Proposed Question
Is mechanical replacement of a shell or head of a pressure retaining item considered a repair activity?
Proposed Reply
Yes, see Part 3, 3,3,3(h).
Committee's Question 1
Committee's Reply 1
Rationale
Committee's Question 2
Committee's Reply 2
Rationale



#### **PROPOSED INTERPRETATION**

Item No.

22-14

#### Subject/Title

**Overlaid Replacement Parts** 

Project Manager and Task Group

#### Source (Name/Email)

Harold Greer / Harold.greer32@yahoo.com

#### Statement of Need

Replacement parts that are documented using a Manufacturer's Partial Data report that have been inspected by an Authorized Inspector may still be supplied as a replacement part under paragraph 3.2.2 b) and therefore not require a Hydro test per Paragraph 3.2.2 e). Panels made from Overlaid tubes and for single overlaid tube Dutchman that contain only weld overlay, where the overlay is not considered to be pressure retaining when the overlay is not considered part of the strength of the boiler tube per ASME Section I PW-44. May be supplied as replacement parts under paragraph 3.2.2 b). The purpose of the overlay is to extend the life of boiler tubes in the waste to energy corrosive environment from external wear.

#### **Background Information**

ASME Section I PG-112.6 states that a P-4 is neither required nor prohibited for pressure parts that do not contain pressure-retaining welds. NBIC Part 3 section 3 paragraph 3.2.2 c) .....replacement parts subject to internal or external pressure fabricated by welding, "which require inspection by an Authorized Inspector".... An inspector could interpret this as, any replacement part that is certified with a form P-4 would therefore require inspection by an Authorized Inspector and would then require a Hydro test by paragraph 3.2.2 e) prior to installation in the boiler. It is the opinion of this manufacturer that Overlaid boiler tubes where the overlay is not considered as part of the strength of the boiler tube per PW-44 of ASME Section I, is not pressure retaining. Hydro testing of Weld Overlay would not provide meaningful data and would requires excessive costs for no benefit. Such as performance of 200 hydro tests at 1.5 x MAWP for section I, for 200 Overlaid tube Dutchmen, where each tube must be witnessed by the Inspector prior to installation in a boiler. Whereas, after installation there are 400 actual pressure retaining welds in a single test at a pressure that need only verify leak tightness and the acceptance of the inspector.

#### Proposed Question

Q1) May a boiler furnace wall panel that contains no pressure retaining welds and has been documented on a P-4 Manufacturer's Partial Data Report in accordance with PG-112.6 of ASME Section I, be provided as a replacement part in accordance with NBIC Part 3, 3.2.2 b)? Q2) The same panel referred to in Q1 is manufactured with a weld overlay that is not part of the strength of the boiler tube (corrosion resistance, hard facing, etc...) and documented on a P4 Manufacturer's Partial Data Report in accordance with PG-112.6 of ASME Section I. May this wall panel be provided as a replacement part in accordance with NBIC Part 3, 3.2.2 b)? Q3) May overlaid boiler tubes, where the overlay is not pressure retaining and is not considered part of the strength of the boiler tube per ASME Section I, PW-44, supplied individually, may these overlaid tubes be provided as a replacement part in accordance with Paragraph 3.2.2 b)?

#### Proposed Reply

Q1) YES Q2) YES Q3) YES

Committee's Question 1

Committee's Reply 1

Rationale