



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

NATIONAL BOARD TASK GROUP INTERPRETATIONS

MINUTES

Meeting of July 12th, 2021
Cincinnati, OH

These minutes are subject to approval and are for the committee use only. They are not to be duplicated or quoted for other than committee use.

The National Board of Boiler & Pressure Vessel Inspectors
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1. Call to Order

Mr. Sieme called the meeting to order at 1:00 PM Eastern Time.

2. Introduction of Members and Visitors

Trevor Sieme has been appointed as the new Chair for the Interpretation TG by the Chair of SC R&A (R. Troutt) with R. Sturm’s stepping down due to his appointment to the BOT.

Introductions took place amongst all members and visitors, and an attendance sheet was completed by the Secretary. (**Attachment 1**).

3. Announcements

- The National Board will host a reception for all committee members and visitors on Wednesday evening from 5:30pm – 7:30 pm in the Continental Room on the Mezzanine Level.
- The National Board will host a breakfast for all committee members and visitors on Thursday morning at 7:00 am and a lunch at 11:30 am in the Rosewood room on the 4th floor of the Hotel.
- A coffee station with snacks will be provided in the morning and afternoon outside of the meeting rooms on the 3rd and 4th floors.
- The 2021 NBIC is available as of July 1st, 2021.

4. Adoption of the Agenda

- a. A motion was made and seconded to adopt the Agenda and was unanimously approved.

5. Approval of the Minutes of the January 11, 2021 Meeting

There was a motion to approve the Minutes of January 11, 2021 as published. The motion was seconded and approved.

6. Interpretations

Item Number: 20-78	NBIC Location: Part 3, 3.3.3 s) & 3.4.4 d)	No Attachment
<p>General Description: Repairs and Alterations of Tube Bundles</p> <p>Subgroup: Repairs and Alterations</p> <p>Task Group: Paul Shanks</p> <p>Explanation of Need: Submission is for R Certificate Holders we provide Repair Inspection services for. NBIC Part 3, 3.3.3 s) seems to allow to be a repair, but under 3.4.4 d) where the dimensions change it might be classified as an alteration.)</p> <p>INT TG Action: Progress Report – Discussion of this Item (20-78) and Item 20-54 dealing with 3.4 .4 d) resulted in P. Becker opening a new Item (21-12) to better clarify the definition and examples of “Repairs” and “Alterations”</p> <p>SC ACTION: Mr. Shanks presented a Progress Report.</p> <p>Meeting Action: P. Shanks presented that this is still being held back. Progress Report till 21-12 is resolved.</p>		

Item Number: 20-91	NBIC Location: Part 3, 1.5.1 h)	No Attachment
General Description: Mechanical Repair Procedures		
Subgroup: Repairs and Alterations		
Task Group: R. Underwood (PM)		
Explanation of Need: Part 3, paragraph 1.5.1(h) requires that control of mechanical assembly/repair procedures be addressed in the R Certificate Holder's Quality Manual. Over the last year or so, there have been National Board Team Leaders requesting these procedures (during joint reviews) for work such as rolling tubes in a boiler and replacing a bolted fitting on a pressure retaining item. This has resulted in questions from certificate holders and Inspectors about why an "R" certificate holder is required to have procedures for mechanical work that doesn't even require an "R" Stamp.		
INT TG Action: Proposal was Unanimously Approved		
SC ACTION: Mr. Underwood presented a proposal that was revised after discussion. The proposal was motioned, seconded and was Approved w/ 1 Abstention (P. Shanks)		
Meeting Action: R. Underwood withdrew the inquiry and a motion to Closed w/No Action was unanimously approved		

New Interpretation Requests:

Item Number: 21-17	NBIC Location: Part 3, 3.3.3 & 3.3.4	No Attachment
General Description: Using any ASME PCC-2 methods in an R-stamped activity		
Subgroup: Repairs and Alterations		
Task Group: George Galanes		
Explanation of Need: Some certificate holders are confused by the reference to PCC-2 in NBIC part 3 and believe they have carte blanche to use any and all PCC-2 methods in an R-stamped activity.		
Meeting Action: G. Galanes presented – P. Shanks withdrew his inquiry. A motion to Closed w/No Action was unanimously approved.		

Item Number: 21-21	NBIC Location: Part 3, 3.4	Attachment 2
General Description: Minimum required thickness determination; Use of Mandatory Appendix 46		
Subgroup: Repairs and Alterations		
Task Group: Tim McBee		
Explanation of Need: Pressure vessels are often designed with a single specified corrosion allowance for the entire vessel. Calculating minimum required thicknesses per the original construction code (and not relying only on the specified corrosion allowance listed on the manufacturer's data report) often results in identifying surplus material for use as corrosion allowance that was not utilized at the time of construction nor reflected on manufacturer's data report. Unfortunately, most vessel designs were not optimized on a per-component basis to maximize corrosion allowance and as a result, significant amounts of time and effort have been spent with unnecessary shutdowns, repairs, and / or fitness for service (FFS) evaluations all of which might have been avoided or deferred for years had the vessel originally been optimized for corrosion allowance.		
Meeting Action: T. McBee proposed to respond by a letter to inquirer that this is consulting . The proposal was motioned and unanimously approved.		

Item Number: 21-22	NBIC Location: Part 3.3.3 & 3.4.4	Attachment 3
General Description: Examples of Repairs and Alterations		
Subgroup: Repairs and Alterations		
Task Group: Trevor Seime		
Explanation of Need: Disclaimer statement would help clarify that the listed examples are not a set list, and only represent some case examples.		
Meeting Action: T. Seime presented. The proposal was editorially revised and unanimously approved .		

Item Number: 21-28	NBIC Location: Part 3, 1.5.1 & 3.3.3 c)	No Attachment
General Description: Subcontracted Weld-Overlay Repair		
Subgroup: Repairs and Alterations		
Task Group: Walter Sperko		
Explanation of Need: (1) To clarify whether it is permitted for an "R" Certificate of Authorization Holder to subcontract weld-overlay repair to another company who does not possess an "R" Certificate. (2) To clarify whether a subcontractor's shop used on a regular basis may be considered as a field location to allow welding by and under the control of the "R" Certificate Holder at that shop.		
Meeting Action: Trevor Seime presented a Progress Report .		

General Description: NDE requirements when repairing defects in original weld metal

Subgroup: Repairs and Alterations

Task Group: None assigned.

Explanation of Need:

This provision will help clarify to "R" Stamp Certificate holders and owners of pressure vessels that are in need of minor repairs to existing welds. Due to the ambiguous wording of this clause any welding on a head to shell joint may be interpreted to require volumetric inspection when the name plate is stamped RT4.

Meeting Action: R. Troutt presented – R. Underwood’s submitted comment and P. Shanks discussion was considered. The proposal revised and **unanimously approved.**

7. Future Meetings

- January 17th-20st, 2022 – San Diego, CA
- July 2022 – TBD

8. Adjournment @ 2:05 PM

There being no further business before the Task Group, the meeting was adjourned at 2:05 PM without objection.

Respectfully submitted,

Terrence Hellman

Terrence Hellman

Interp. TG Secretary (R&A)

PROPOSED INTERPRETATION

<p>Item No.</p> <p>21-21</p>
<p>Subject/Title</p> <p>Minimum required thickness determination; Use of Mandatory Appendix 46</p>
<p>Project Manager and Task Group</p> <p>Timothy McBee, Subcommittee Repairs/Alterations</p>
<p>Source (Name/Email)</p> <p>Christopher Oliver / chrisoliver@chevron.com</p>
<p>Statement of Need</p> <p>Pressure vessels are often designed with a single specified corrosion allowance for the entire vessel. Calculating minimum required thicknesses per the original construction code (and not relying only on the specified corrosion allowance listed on the manufacturer’s data report) often results in identifying surplus material for use as corrosion allowance that was not utilized at the time of construction nor reflected on manufacturer’s data report. Unfortunately, most vessel designs were not optimized on a per-component basis to maximize corrosion allowance and as a result, significant amounts of time and effort have been spent with unnecessary shutdowns, repairs, and / or fitness for service (FFS) evaluations all of which might have been avoided or deferred for years had the vessel originally been optimized for corrosion allowance.</p>
<p>Background Information</p> <p>The 2019 Sec VIII Div 1 edition introduced Mandatory Appendix 46, which allows Div 1 pressure vessel components to be designed using Div 2 rules while still using original material allowable stress values. NBIC considers “minimum required thickness” to be what the original code of construction requires – as listed in Part 2 Section 4.4.7.2. NBIC Interpretation 07-13 clarifies that “original code of construction” does not necessarily mean the original edition/addenda must be used. NBIC Part 3 Section 3.4.1 spells out re-rating as “increasing the maximum allowable working pressure (internal or external) or temperature or decreasing the minimum design metal temperature below which notch toughness testing is required by the original code of construction” and does not mention corrosion allowance or minimum required thickness. NBIC Part 3 Section 3.4.2 states that calculating new minimum wall thickness values by using different allowable stress values provided by different code editions is considered an alteration. However, Mandatory Appendix 46 requires Div 1 allowable stress values be used when calculating required component thicknesses under the Div 2 rules, so the question being proposed is not specifically addressed in NBIC Part 3. NBIC Part 3 Section 9 defines Alteration as “A change in the item described on the original Manufacturer’s Data Report which affects the pressure containing capability of the pressure-retaining item. (See NBIC Part 3, 3.4.3, Examples of Alteration) Nonphysical changes such as an increase in the maximum allowable working pressure (internal or external), increase in design temperature, or a reduction in minimum temperature of a pressure-retaining item shall be considered an alteration. Calculating minimum required thicknesses per the original construction code (and not relying only on the specified corrosion allowance listed on the manufacturer’s data report), while maintaining the vessel allowable stresses, MAWP, MAEWP, MAWT, and MDMT does not affect the pressure containing capability of the vessel.</p>
<p>Proposed Question</p> <p>1. Is it permissible for the Owner/User to calculate a new minimum required thickness for a vessel component per the original code of construction where there is no change to allowable stresses, and the vessel MAWP, MAEWP, MAWT, and MDMT do not deviate from what is stated on the Manufacturer’s Data Report without performing an Alteration? 2. If yes, is it permissible to invoke Mandatory Appendix 46 of the 2019 edition of ASME Section VIII Division 1 when performing the activities described above when the original code of construction was an earlier edition of ASME Section VIII Division 1?</p>
<p>Proposed Reply</p> <p>1. NBIC defines “minimum required thickness” to be what the original code of construction requires – as listed in Part 2 Section 4.4.7.2. Therefore, it is permissible for the Owner/User to calculate a new minimum required thickness for a vessel component per the original code of construction where there is no change to the allowable stresses, and the vessel MAWP, MAEWP, MAWT, and MDMT do not deviate from what is stated on the Manufacturer’s Data Report, without performing an alteration. 2. NBIC Interpretation 07-13 clarifies that “original code of construction” does not necessarily mean the original edition/addenda must be used, therefore it is permissible to use the 2019 edition of ASME Section VIII Division 1, including Mandatory Appendix 46, when performing the activities described above when the original code of construction is an earlier edition of ASME Section VIII Division 1.</p>



PROPOSED INTERPRETATION

Item No. 21-22
Subject/Title Examples of Repairs and Alterations
Project Manager and Task Group Trevor Seime, Subcommittee Repairs/Alterations
Source (Name/Email) Terrence Hellman / thellman@nationalboard.org
Statement of Need Disclaimer statement would help clarify that the listed examples are not a set list, and only represent some case examples.
Background Information This verbiage may be included in a current Action Item (21-12), however, this interpretation may provide clarity until the proposed verbiage is added to the NBIC.
Proposed Question Q1 - Are the listed examples of Repairs in 3.3.3 and Alterations in 3.4.4 intended to represent only some case examples and are not meant to limit or dictate whether a particular situation, is or is not, a repair or alteration? Q2 - Is classifying an activity related to existing equipment as a 'Repair' or 'Alteration' a decision that should be based on input between the Owner/User, 'R' Certificate Holder, Authorized Inspection Agency and Jurisdictional Authority if applicable?
Proposed Reply A1 - Yes A2 - Yes
Committee's Question 1
Committee's Reply 1
Rationale
Committee's Question 2
Committee's Reply 2
Rationale

VOTE:							
COMMITTEE	Approved	Disapproved	Abstained	Not Voting	Passed	Failed	Date
TG INTERP	UA				X		7/12/21

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 will 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:

- 1) A review of calculations, design drawings, welding qualifications, or descriptions of equipment or Parts to determine compliance with code requirements;
- 2) 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
- 3) A request seeking the rationale for code requirements.