

Date Distributed: 8/27/2019



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

NATIONAL BOARD TASK GROUP GRAPHITE

MINUTES

Meeting of July 10th, 2019
Columbus, OH

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

Task Group Graphite Chair Mr. Aaron Viet called the meeting to order at 9:07AM local time.

2. Introduction of Members and Visitors

All those present at the meeting were asked to introduce themselves and sign their name on the attendance sheet.

3. Announcements

Mr. Jonathan Ellis made a few announcements before the group began discussing NBIC business:

- A catered lunch will be provided around noon.
- There is a new Letter Balloting system on the Business Center. Mr. Ellis shared a brief presentation on the new system.
- The 2019 NBIC is available. Mr. Ellis will provide physical copies to the members who want them.

4. Adoption of the Agenda

A motion was made, seconded, and approved unanimously to adopt the agenda as presented.

5. Approval of the Minutes of March 26th, 2019 Meeting

The minutes from the March 2019 meeting can be found on the National Board website -

<https://www.nationalboard.org/Index.aspx?pageID=13&ID=18>

A motion was made, seconded, and approved unanimously to adopt the minutes from the March meeting.

6. Review of Rosters

a. Membership Nominations

- i. The approved nominations from the March meeting (Mr. Richard Bulgin and Mr. Nolan Lee) will be on the SC R&A agenda for approval at the July NBIC meeting. Once approved by the subcommittee, they will go to the Board of Trustees for final approval.

b. Membership Reappointments

- i. Mr. Francis Brown's and Mr. Justin Clements' reappointments will be on SC R&A's agenda for approval at the July NBIC meeting.

c. Officer nominations

- i. No new nominations.

7. NBIC Business

Item Number: NB15-2208	NBIC Location: Part 3, S3	No Attachment
<p>General Description: Investigate repair options for graphite block heat exchangers</p> <p>Subgroup: Graphite</p> <p>Task Group: G. Becherer (PM), Aaron Viet</p> <p>July Meeting Action: Discussion was held on developing sketches as part of the proposal. Mr. Viet stated that he would work on them and present them at the next meeting. Further discussion was held on how this new section would be written. It was determined that it would look similar to the section written for tube plugging. It would also be necessary to consider special repair cases for blocks. Limits on the number of holes that could be plugged holes plugged were discussed as there are no current limits for tube plugging. During discussion, it was decided that requirements for hole-plugging should be written first, then address requirements for who can do the repair. A separate item will be opened after the meeting to write new language for who can make the hole plugging repairs on blocks (task group of Chris Cary (PM), Aaron Viet, and Andrew Stupica).</p>		

Item Number: 17-166	NBIC Location: Part 3, S3	Page 6
<p>General Description: Remove nozzle replacement and tube replacement from graphite routine repair list</p> <p>Subgroup: Graphite</p> <p>Task Group: F. Brown (PM)</p> <p>July Meeting Action: Mr. Ellis announced that this item is on the Subcommittee Repairs & Alterations and Main Committee agenda for the July NBIC meeting. The group also discussed opening a separate item to address nozzle repair (task group of Andrew Stupica (PM) and Monte Bost).</p>		

Item Number: 17-167	NBIC Location: Part 3, S3.2 d)	No Attachment
<p>General Description: Clarify repair inspection requirements for machined only graphite parts</p> <p>Subgroup: Graphite</p> <p>Task Group: M. Bost, A. Viet</p> <p>July Meeting Action: Discussion was held on the type of information provided on MTRs and data reports, and how requiring one or the other affects who can supply parts. Mr. Brown mentioned that requiring only an MTR limits control over the quality of the parts and materials. Requiring Partial Data Reports allows for protection of proprietary materials. It was mentioned that a CMTR doesn't require an AI, while a Partial Data Report does. Mr. Stupica mentioned that internal materials should not need a data report if it is being used in-house. After discussion, Mr. Bost shared his initial proposal. After reviewing the initial proposal, the group suggested changes to make the requirements clear. Mr. Bost will send the proposal to Mr. Ellis to be letter balloted to the group once reappointments have received final approval.</p>		

Item Number: 18-93	NBIC Location: Part 3, S3.2, S3.4 4.4.2 6)	No Attachment
General Description: Test Duration		
Subgroup: Graphite		
Task Group: J. Clements (PM)		
July Meeting Action: Discussion was held on if a 30 minute test period is necessary. There was agreement that pressure tests would pass a 10 minute test but not a 30 minute test, so there is no real need to change it. A motion to close the item with no further action was made, seconded, and approved unanimously.		

Item Number: 18-94	NBIC Location: Part 3, S3.2 f), h); S3.4 a), b), c) etc.	No Attachment
General Description: G-mark Requirements for Various Repairs/Alteration to Graphite		
Subgroup: Graphite		
Task Group: C. Cary (PM)		
July Meeting Action: Mr. Chris Cary presented his initial proposal and gave some background on the changes being proposed. Discussion was held on changes that should be made to the proposal. Mr. Cary will make the suggested changes and resubmit for review at the next meeting.		

8. New Business

Some discussion was held on increasing the limit of surface routine repairs from one cubic inch. Mr. Justin Clements will investigate to see what would be appropriate and discuss his findings at the next meeting.

9. Future Meetings

- October 7th-8th, 2019 – Clearwater, Florida
- March 2020 – Columbus, OH

10. Adjournment

Mr. Viet adjourned the meeting at 1:36 PM local time.

Respectfully submitted,

Jonathan Ellis

Jonathan Ellis
NBIC Secretary

Record 17-166

S3.3 REPAIRS OF A ROUTINE NATURE

- a) The following repairs shall be considered routine, and shall comply with NBIC Part 3, 3.3.2.
- 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 — replacement of nozzles by removing the old nozzle and cementing a new nozzle in place. This is applicable for nozzles with inside diameters not exceeding ~~18 in. (460 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.
- b) Complete records of these routine repairs shall be kept for review by the Inspector. The records shall include the number of tubes replaced or plugged and their location within the tube bundle.