**Date Distributed:** 



THE NATIONAL BOARD

OF BOILER AND
PRESSURE VESSEL
INSPECTORS

# NATIONAL BOARD SUBCOMMITTEE INSPECTION

**AGENDA** 

Meeting of July 14th, 2021 Cincinnati, OH

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

8:00 AM Eastern Time. For those attending in person, the meeting room will be Rookwood on the 4<sup>th</sup> floor.

#### 2. Introduction of Members and Visitors

#### 3. Check for a Quorum

#### 4. Awards/Special Recognition

Mr. David Buechel – 5 Years

#### 5. 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 4<sup>th</sup> floor of the Hotel.
- A coffee station with snacks will be provided in the morning and afternoon outside of the meeting rooms on the 3<sup>rd</sup> and 4<sup>th</sup> floors.
- The 2021 NBIC is available as of July 1st, 2021.

#### 6. Adoption of the Agenda

#### 7. Approval of the Minutes of the January 13, 2021 Meeting

The minutes are available for review on the National Board website, www.nationalboard.org.

## 8. Review of Rosters (Attachment Page 1)

#### a. Membership Nominations

Mr. William Hackworth (Authorized Inspection Agencies) is interested in becoming a member of Subgroup and Subcommittee Inspection.

#### b. Membership Reappointments

The following Subgroup Inspection members are up for reappointment: Mr. Darrell Graf, Mr. Jim Getter, Mr. James Calvert, Mr. Mark Horbaczewski, and Mr. John Mangas. Their memberships are set to expire on August 30, 2021.

The following Subcommittee Inspection members are up for reappointment: Mr. Jim Getter, Mr. James Calvert, Mr. Mark Horbaczewski, and Mr. John Mangas. Their memberships are set to expire on August 30, 2021.

### c. Officer Appointments

Mr. Jim Getter's and Mr. Mark Horbaczewski's terms as Chair and Vice Chair are set to end on August 30, 2021. They are both eligible for reappointment to these positions.

- 9. Open PRD Items Related to Inspection There are currently no open PRD items related to Inspection.
- **10. Interpretations** There are no interpretations for Subcommittee Inspection.

#### 11. Action Items

Item Number: NB16-1402 NBIC Location: Part 2, New Supplement No Attachments

General Description: Life extension for high pressure FRP vessels above 20 years

Subgroup: FRP

Task Group: M. Gorman (PM)

#### **January 2021 Meeting:**

**Progress Report:** Secretary, Ms. Metzmaier reported on this item stating **Nothing needs to be done at this meeting**. The recent letter ballot had several negative votes that FRP will need to address before sending the proposal to Subcommittee.

**Update:** From the April 2021 FRP meeting – Mr. Gorman provided an update to the FRP Task Group on the item, discussing responses to Subcommittee Inspection questions/comments. He also discussed a new Life Extension Test form that would be used to track testing. A new proposal will be put together to address subcommittee comments and will be presented at the next FRP meeting on October.

Item Number: 18-6 NBIC Location: Part 2, S1.4.2.9 Attachment Page 2

General Description: Riveted stay bolt dimensions

Subgroup: Locomotive

Task Group: M. Janssen (PM)

#### **January 2021 Action:**

**Progress Report:** Secretary, Ms. Metzmaier stated at the last Locomotive meeting, the group reached out to the task group PM for information on a proposal, and they did not hear from him. They are going to address the item again at their next meeting.

**Update:** This item was letter balloted to and received approval from SC Inspection.

Item Number: 18-43 NBIC Location: Part 2, Section 5 Attachment Page 3

General Description: Permanent nameplate removal from pressure vessel being removed from service

Subgroup: Inspection

Task Group: J. Roberts (PM), J. Burgess, J. Calvert, J. Clark, M. Sansone

#### **January 2021 Action:**

Mr. Roberts stated that the task group has worked on the proposal and responded to the negative comments from the MC letter ballot. Mr. Roberts and Mr. Sansone presented the revised proposal to the Subcommittee and they went over the responses they composed to the disapproval ballot votes. The Subcommittee discussed the responses and the revised proposal. They made a few changed to the revised proposal. In order to allow the Main Committee to review the responses to the negative comments, a motion was made to send the revised proposal to **Main Committee letter ballot for review and comment**. The motion was seconded and **unanimously approved**.

**Update:** This item was balloted for review and comment to the Main Committee and received several comments.

Item Number: 18-63 NBIC Location: Part 2 Attachment Page 6

General Description: Review inspection requirements for pressure vessels designed for high pressures

Subgroup: Inspection

Task Group: V. Scarcella (PM), J. Mangas, J. Peterson, B. Ray and J. Castle

#### **January 2021 Action:**

Mr. Bolden presented a proposal to the Subcommittee. The proposal that was approved in the Subgroup Inspection meeting, with 3 disapproval votes, and one "Not Voting" vote, was revised by the task group to address the comments from the disapproval votes. The Subcommittee reviewed the changes, and there were still many questions and concerns with the wording. After a lot of discussion, a motion was made to send the revised proposal out for **Subcommittee letter ballot for review and comment**. The motion was seconded and **unanimously approved**.

**Update:** A Review and Comment ballot was submitted to SC Inspection in May 2021.

Item Number: 19-46 NBIC Location: Part 2, S5 No Attachment

**General Description:** Revisions to Yankee dryer supplement in Part 2 (Scope)

**Subgroup:** Inspection

Task Group: T. Barker (PM), V. Newton, D. Lesage

**Explanation of Need:** Ensure that wording in Part 2, S5.1, is identical to that found in Part 1, S1.1.

#### January 2021 Action:

**Progress Report:** Mr. Newton stated that Mr. Jessick is no longer in the position to be a part of the task group. Mr. Newton asked Mr. Barker to give a report on the item. Mr. Barker has stated there is a document that was revised, and not yet published, from TAPPI (Technical Association of the Pulp and Paper Industry) which is related to this subject. He would like to hold off on making any further changes until they review the revised document from TAPPI.

Item Number: 19-63 NBIC Location: Part 2, S5.2 No Attachment

**General Description:** Changes to the Yankee Dryer Supplement (ASSESSMENT OF INSTALLATION)

**Subgroup:** Inspection

Task Group: T. Barker (PM), V. Newton, D. Lesage

**Explanation of Need:** Ensure that wording in Part 2, S5.2, is identical to that found in Part 1, S1.2. Note that wording will be the same, but paragraph numberings will be different.

#### **January 2021 Action:**

**Progress Report:** Mr. Newton stated that Mr. Jessick is no longer in the position to be a part of the task group. Mr. Newton asked Mr. Barker to give a report on the item. Mr. Barker has stated there is a document that was revised, and not yet published, from TAPPI (Technical Association of the Pulp and Paper Industry) which is related to this subject. He would like to hold off on making any further changes until they review the revised document from TAPPI.

Item Number: 19-64 NBIC Location: Part 2, S5.2.1 No Attachment

**General Description:** Changes to the Yankee Dryer Supplement (DETERMINATION OF ALLOWABLE OPERATING PARAMETERS)

Subgroup: Inspection

Task Group: T. Barker (PM), V. Newton, D. LeSage

**Explanation of Need:** Ensure that wording in Part 2, S5.2.1, is identical to that found in Part 1, S1.3. Note that wording will be the same, but paragraph numberings will be different.

#### January 2021 Action:

**Progress Report:** Mr. Newton stated that Mr. Jessick is no longer in the position to be a part of the task group. Mr. Newton asked Mr. Barker to give a report on the item. Mr. Barker has stated there is a document that was revised, and not yet published, from TAPPI (Technical Association of the Pulp and Paper Industry) which is related to this subject. He would like to hold off on making any further changes until they review the revised document from TAPPI.

Item Number: 19-84 NBIC Location: Part 2, S2.10.7 No Attachment

General Description: Inspecting riveted joints for failure

**Subgroup:** SG Historical **Task Group:** F. Johnson (PM)

**Explanation of Need:** 

Mr. Rose reported that a progress report was given at the Historical Task Group Meeting.

#### January 2021 Action:

**Progress Report**: Mr. Rose stated this was a progress report at the TG Historical meeting. The task group is still working on the proposal.

Item Number: 20-5 NBIC Location: Part 2, 4.1 – 4.4 No Attachment

General Description: Add language in NBIC Pt2/Pt3 to minimize CSEs by allowing remote NDE.

**Subgroup:** Inspection

Task Group: V. Newton (PM), J. Morgan, M. Horbaczewski, D. Graf, D. LeSage, D. Rose, B. Ray

**Explanation of Need:** In order to minimize higher-risk work, specifically Confined Space Entries, remote NDE methodologies should be specifically allowed by the NBIC, at the discretion of the people performing the inspections.

#### January 2021 Action:

**Progress Report:** Mr. Newton stated this is a progress report. They are waiting to see if they get any comments from the new remote inspection section in the 2021 NBIC.

Item Number: 20-26 NBIC Location: Part 2, S2 No Attachment

General Description: Concern for Historical Boiler Inspections Nationwide

Subgroup: Historical

Task Group: T. Dillon (PM), R. Underwood, L. Moedinger, M. Wahl, D. Rupert, K. Anderson, M. Sansone &

J. Wolf

**Explanation of Need:** Currently Jurisdictions are not uniform in adoption of how and when inspections are

performed.

### January 2021 Action:

**Progress Report:** Mr. Getter stated this was a progress report at the TG Historical meeting. Mr. Rose and Mr. Sansone explained to the Subcommittee that they are keeping this item as an action/discussion item so it does not get lost. There will be a discussion of this topic at the next Chiefs meeting.

Item Number: 20-46 NBIC Location: Part 2, 5.3.2 No Attachment

**General Description:** Updates to Forms NB-5, NB-6, & NB-7

Subgroup: Inspection

Task Group: D. Buechel (PM), M. Sansone, V. Scarcella, D. LeSage

**Explanation of Need:** On the current forms NB-5, NB-6, & NB-7 there are fields that are already on the ASME Manufactures Data Report making them repetitive. Other fields that ask for in- depth technical information would be hard if not impossible for an inspector to determine and are irrelevant to the inspection process.

#### January 2021 Action:

**Progress Report:** Mr. Buechel stated this item is still being worked on by the task group. They are looking at the forms further to see what needs to be revised. Mr. Sansone will bring this topic up at the next JRS meeting.

Item Number: 20-57 NBIC Location: Part 2, 4.4.1 a) No Attachment

**General Description:** Evaluate revision to Part 2, 4.4 FFS scope roles and responsibilities (submitted by Mr. George Galanes).

**Subgroup:** Inspection

Task Group: M. Horbaczewski (PM) and B. Ray.

**Explanation of Need:** Currently, there is confusion surrounding implementation of FFS for Part 2 inspection activities, where the FFS form is located and Part 3 activities regarding Part 3, 3.3.4.8 because it references Part 2 for FFS. In addition, we need to have a Part 2 Inspection member to be assigned to assist in the development of roles and responsibilities.

#### **January 2021 Action:**

**Progress Report:** Mr. Getter stated a Task Group created at the SG Inspection meeting.

Item Number: 20-59 NBIC Location: Part 2, 5.2.1 a) No Attachment

General Description: Temporary nameplate removal for external inspection (submitted by Mr. Doug

Biggar).

Subgroup: Inspection

Task Group: T. Vandini (PM), B. Ray, J. Roberts, V. Newton, M. Sansone

**Explanation of Need:** What is being added to NBIC part 2 (item 19-30) for NBIC 2021 edition: [(e) removal and re-attachment of the original manufacturer's nameplate shall only be done in accordance with NBIC Part 3, 5.11]. To have an inspector present onsite each time we need to have a nameplate temporarily removed has a cost that a commercial refurbisher such as ourselves would need to pass onto the customer as well as dramatically affect the efficiency of our assembly line.

### January 2021 Action:

Chairman, Mr. Graf has presented this item to the group. The group reviewed the proposal. They discussed whether this item should be moved to Part 3 as opposed to Part 2. Mr. Wielgoszinski stated he does not believe the item should be moved to Part 3 because it is generally an inspection issue where this occurs. The group has decided to create a task group to see if the current wording in a) needs to be broken out, and they will also investigate adding information into this section to address "Detached Nameplates".

Item Number: 20-70 NBIC Location: Part 2, S1.4.2.29 No Attachment

General Description: Inspection of Furnace Slides (submitted by Mr. Mark Ray)

**Subgroup:** Locomotive **Task Group:** M. Ray (PM)

**Explanation of Need:** Furnace slide supports which are locked in-place by corrosion will adversely impact the thermal expansion of the boiler and lead to staybolt breakage.

#### **January 2021 Action:**

**Progress Report:** The Subcommittee read through the pending changes; however; the proposal needs to be voted through TG Locomotive before action can be taken at the Subcommittee Inspection meeting.

**Update:** TG Locomotive is still working on the proposal for this item.

Item Number: 20-71 NBIC Location: Part 2, S1.6 No Attachment

General Description: Safety Valve Sizing (Correct Use of Capacity Charts) (submitted by Mr. Mark Ray)

**Subgroup:** Locomotive **Task Group:** M. Ray (PM)

Explanation of Need: This is to ensure safety valves provide the adequate relieving capacity for steam

locomotive boilers.

#### January 2021 Action:

**Progress Report:** The subcommittee read through the pending changes; however; the proposal needs to be voted through TG Locomotive before action can be taken at Subcommittee Inspection meeting.

**Update:** This item was approved by TG Locomotive during their March meeting and was approved by SC Inspection via letter ballot.

Item Number: 20-79 NBIC Location: Part 2, S10.10.4 c) No Attachment

General Description: Add nomenclature to formula in S10.10.4 c) (originated from Public Review Comment

PR20-0201)

Subgroup: FRP

Task Group: M. Gorman

**Explanation of Need:** The current formula has no nomenclature to define the variables. The change request came about from Public Review Comment PR20-0201. The Main Committee voted in October of 2020 to open a new action item to add nomenclature for this formula.

Variable definitions from Mr. Gorman: "U is the measured signal energy in joules. The signal is the captured waveform from, say, a fiber break source. V is the signal amplitude in volts point by point in the signal. Voltage must be corrected for gain (G). Z is in ohms. The (differential) time is dt in seconds."

#### January 2021 Action:

**Progress Report:** Mr. Getter reviewed the proposed changes from the FRP task group. The subcommittee made a change to the proposal, and would like to send the proposal back to FRP task group for approval.

**Update:** This item is currently being balloted to the FRP Task Group.

#### **New Items:**

Item Number: 21-03 NBIC Location: Part 2, S2 Attachment Page 7

General Description: Inspection of through stays and diagonal stays (submitted by David Rose)

Subgroup: Historical

Task Group: None assigned

Explanation of Need: The code is silent on the inspection of through stays and diagonal stays. Additionally,

new repair methods are available from ASME that can be incorporated.

July 2021 Action:

Item Number: 21-25 NBIC Location: Part 2 Attachment Page 8

General Description: Autoclave/Quick opening device PP (submitted by Kevin Hawes)

Subgroup: Inspection

Task Group: None assigned

**Explanation of Need:** Upon our AIA (Intact) QRR I produced a Power point presentation on Autoclave inspections. Your NB team leader Gary Scribner suggested I forward this inspection presentation to the NB for review of content as mention of good reference material for next NBIC edition. I have attached a copy of this PP for your considerations.

July 2021 Action:

#### 12. Future Meetings

- January 18<sup>th</sup>-21<sup>st</sup>, 2022 San Diego, CA
- July 2022 TBD

#### 13. Adjournment

Respectfully submitted,

Jodi Metzmaier

Subcommittee Inspection Secretary

# ■ Subcommittee Inspection

Last Name	First Name	Interest Category	Role	Exp. Date	More
Getter	Jim	Manufacturers	Chair	08/30/2021	Details
Horbaczewski	Mark	Users	Vice Chair	08/30/2021	Details
Metzmaier	Jodi		Secretary	01/30/2099	Details
Barker	Timothy	Authorized Inspection Agencies	Member		Details
Brantley	Ernest	Authorized Inspection Agencies	Member	01/30/2022	Details
Buechel	David	Authorized Inspection Agencies	Member	07/30/2022	Details
Calvert	James	National Board Certificate Holders	Member	08/30/2021	Details
Clark	James	Manufacturers	Member	10/30/2022	Details
Graf	Darrell	National Board Certificate Holders	Member	01/30/2023	Details
LeSage	Donnie	Jurisdictional Authorities Member		07/30/2023	Details
Mangas	John	General Interest	neral Interest Member		Details
Newton	Venus	Authorized Inspection Agencies	Member	07/30/2022	Details
Petersen	Jeffrey	Users	Member	01/30/2023	Details
Ray	Brent	Users	Member	07/30/2023	Details
Roberts	James	Manufacturers	Member	08/30/2023	Details
Rose	David	Users	Member	10/30/2022	Details
Safarz	Jason	General Interest	Member	07/30/2023	Details
Sansone	Matthew	Jurisdictional Authorities	Member	01/30/2024	Details
Scarcella	Vincent	Authorized Inspection Agencies	Member	01/30/2023	Details
Vandini	Thomas	National Board Certificate Holders	Member	01/30/2023	Details
Welch	Paul	Authorized Inspection Agencies	Member	01/30/2022	Details

# Item 18-6

# S1.4.2.9 STAYBOLTS

- c) Staybolt head flush with or below the surface of the sheet (see Figure S1.4.9.2-a);
- e) Waterside corrosion (see Figure S1.4.9.2-b);

Figure \$1.4.9.2-a

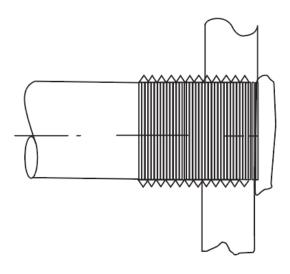
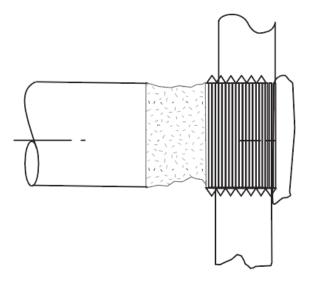


Figure S1.4.9.2-b



#### 1.6 CHANGE OF SERVICE

Supplement 9 of this part provides requirements and guidelines to be followed when a change of service or service type is made to a pressure-retaining item.

Whenever there is a change of service, the Jurisdiction where the pressure-retaining item is to be operated, shall be notified for acceptance, when applicable. Any specific jurisdictional requirements shall be met.

### 1.7 SCRAPPING PRESSURE RETAINING ITEMS

The owner or user shall deface, beyond recognition and remove the code nameplate(s) or stamping of any pressure retaining item that is scrapped. The removal or defacement of the Code nameplate(s) should be verified by the Inspector, and the National Board form NB-XXX shall be completed and submitted to the National Board and Jurisdiction, if required.

#### **ADD DEFINITION:**

<u>SCRAPPED – Permanent removal from service by owner's or user's procedures.</u>

Scrapping of Pressure Retaining Items
In accordance with provisions of the National Board Inspection Code

1.Submitted to:	2. Submitted by:
Name of Jurisdiction	(Name of Owner/User)
Address	Address
Phone Number	Phone Number
3. Manufactured by: (name and address)	
5. Manufacturer's Data Report:	ES NO
6. Item Registered with National Board: YE	ES NO NB Number:
7. Item Identification:	
Year Built:	Mfr. Serial No.:
Type:	Jurisdiction no.:
Dimensions:	MAWP:
8. Date of removal or defacement of the Code name	plate(s)
9. I certify that to the best of my knowledge correct, and with provisions of the National I	
Name of Owner or User:	
Signature:	Date:

#### Instructions for Completing the Form NB-XXX, Scrapping of Pressure Retaining Items Form

Items 1-9 shall be completed by the owner, user, or "R" Stamp Holder making the request.

- 1) The name, address, and phone number of the Jurisdiction, Authorized Inspection Agency (when there is no Jurisdiction) the form is being submitted to for approval.
- 2) Enter the name and address of your company or organization.
- 3) Enter the name and address of the manufacturer shown on the name plate.
- 4) Enter the name and address of the location where the pressure-retaining item is installed. If this is the same as number 2, check the box "same as #4."
- 5) Manufacturer's Data Report Attached-check the appropriate box.
- 6) Is the pressure-retaining item registered with the National Board? Check the appropriate box. If yes, provide the National Board Registration Number.
- 7) Provide as much information as known to help identify the pressure-retaining item.
- 8) Enter date the removal or defacement of the Code nameplate.
- 9) Enter the name and signature of the owner, user, or "R" Stamp Holder (and "R" Stamp number if applicable).

Note: Once completed the requester shall file a copy with the Jurisdiction where the pressure retaining item is installed, the National Board (if registered with the National Board), and the owner or user of the vessel if the request was made by an "R" Stamp Holder, and upon request to the Authorized Inspection Agency who witnessed the removal or defacement of the nameplate.

#### 2.3.6.11 INSPECTION OF VESSELS FOR PRESSURES AT AND ABOVE 10,000 PSI

- <u>a) This section provides guidelines for the inspection of pressure vessels designed for pressures at or above 10,000 PSI.</u>
- b) Inspector shall verify the vessel is constructed to a standard acceptable to the jurisdiction.
- c) The inspector shall verify the following requirements as part of the inspection:
  - 1) Records are being kept of cycles:
  - 2) Complete documentation of installation of safety interlocks required by the manufacturer and the jurisdiction for the vessel with listed set points, readily available to the operator and inspector. All devices must be listed;
  - 3) Documentation safety device alarms and interlock checks are being completed on each protective device and controls are calibrated in accordance with manufacturers specifications;
  - <u>4) Operators and maintenance personnel are trained for the inspection, maintenance and operation of the vessel and systems; and</u>
  - 5) Documentation of pressure relief device inspection and testing.
- d) Vessels constructed for a set number of cycles, as defined by the code of construction, which have reached the end of those cycles, must be removed from service or requalified for continued use. Any requalification for continued service must be completed in accordance with the requirements of the jurisdiction, where applicable. The inspector shall verify that documentation of any requalification is retained.
- e) Requalification of any vessel shall either be completed by the original manufacturer or a manufacturer familiar with the construction of pressure vessels at and above 10,000 PSI. Guidance for completing requalification can be found in ASME PCC-3, Inspection Planning and Using Risk-Based Methods.

# PROPOSED REVISION OR ADDITION

Item No.
21-03
Subject/Title
In spection of through stays and diagonal stays
NBIC Location
Part: Inspection & Repairs and Alterations; Section: Supplement 2 & Supplement 2; Paragraph: - & -
Project Manager and Task Group
Source (Name/Email)
David Rose / dr3747@telus.net
Statement of Need
The code is silent on the inspection of through stays and diagonal stays. Additionally new repair methods are available from ASME that can be incorporated.
Background Information
Damaged through and diagonal stays are being found during inspections.
Existing Text
Proposed Text
ТВА

	VOTE:						
COMMITTEE	Approved	Disapproved	Abstained	Not Voting	Passed	Failed	Date

# PROPOSED REVISION OR ADDITION

Item No.
21-25
Subject/Title
Auto clave/Quick opening device PP
NBIC Location
Part: Inspection; Section: Autoclaves; Paragraph: TBD
Project Manager and Task Group
Source (Name/Email)
Kevin Hawes / kevin.hawes@intact.net
Statement of Need
See comments in Background
Background Information
Upon our AIA (Intact) QRRI produced a Power point presentation on Autoclave inspections. Your NB team leader Gary Scribner suggested I forward this inspection presentation to the NB for review of content as mention of good référence material for next NBIC edition. I have attached a copy of this PP for your considérations
Existing Text
Proposed Text
SEE comments in Background

	VOTE:						
COMMITTEE	Approved	Disapproved	Abstained	Not Voting	Passed	Failed	Date