



*THE NATIONAL BOARD
OF BOILER AND PRESSURE VESSEL INSPECTORS*

NATIONAL BOARD INSPECTION CODE SUBGROUP REPAIRS & ALTERATIONS

MINUTES

**Meeting of July 11th, 2023
St. Louis, MO**

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 1055 Crupper Avenue
Columbus, Ohio 43229-
1183
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1. Call to Order

Chair Boseo called the meeting to order at 8:00 a.m. Central Time in the Cardinal A and B room at the hotel.

2. Roll call of Members and Introduction of Visitors

Secretary Hellman called roll of the Members and held introductions of visitors ([Attachment 1](#))

3. Check for a Quorum

Secretary Hellman verified a quorum was reached.

4. 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 Terry 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 2 meetings prior to being put on the agenda for membership consideration. The nominee will be on the agenda for voting during their 3rd 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 also is a good way to make sure we have the most up-to-date contact information.

5. Adoption of the Agenda

a. The following revisions were made to the Agenda:

- Added:
 - I23-49
 - I23-51
- The agenda was unanimously approved (UA), as revised.

6. Approval of the Minutes of the January 10, 2023 Meeting

The minutes are available for review on the National Board website, www.nationalboard.org. Approval of the Minutes were motioned, seconded, and UA.

7. U.S. Chemical Safety Board Presentation

Representatives from the U.S. Chemical Safety Board gave a presentation regarding the 2017 Loy Lange Box Company pressure vessel explosion.

8. Review of Rosters

a. Membership Nominations

- i. Jonathan Ferreira (Interest Category of AIA) is interested in becoming a member of Subgroup R&A
 - Mr. Ferreira was voted on for SG R&A membership and was unanimously approved (UA).
- ii. Mr. Andrew Triplett (Interest Category of User) is interested in becoming a member of Subgroup R&A – UA
 - Mr. Triplett was voted on for SG R&A membership and was UA

b. Membership Reappointments

- i. The following Subgroup R&A memberships are set to expire prior to the January 2024 NBIC meetings: Mr. Brian Boseo, Mr. Ben Schaefer, Mr. Scott Chestnut, Mr. Paul Davis, Mr. Trevor Seime, and Mr. Rick Valdez.
- ii. The following members confirmed their willingness to continue to serve on the SG R&A and were UA for reappointment: Mr. Ben Schaefer, Mr. Paul Davis, Mr. Trevor Seime, and Mr. Rick Valdez.

c. Officer Nominations

- i. Mr. Boseo and Mr. Schaefer's terms as Chair and Vice Chair are set to expire after this meeting, and they are not eligible for reappointment due to reaching the term limit. The Subgroup will need to propose a new Chair and Vice Chair to the Subcommittee for appointment.
 - Mr. Robert Underwood (Interest Category of AIA) – Voted as Chair of SG R&A
 - Mr. Tim McBee (Interest Category of AIA) – Voted as Vice Chair of SG R&A

9. Action Items

Item Number: A21-12	NBIC Location: Part 3, 3.3.3, 3.4.4, Section 9	Attachment 2
<p>General Description: Clarify the definitions and examples of “Repair” and “Alteration”</p> <p>Subgroup: Repairs and Alterations</p> <p>Task Group: K. Moore, R. Underwood, M. Chestnut, T. Seime</p> <p>Explanation of Need: Clarify the definitions of “Repair” and “Alteration” in the Glossary and revise the list of examples of each to better define the allowable scope of activities.</p> <p>Jan. SG R&A 2023 Meeting Action: P. Becker presented a PR.</p> <p>July 2023 Meeting Action: P. Becker proposed a Rvw & Comment LB to SG R&A only. The proposal was UA.</p>		

Item Number: A21-31	NBIC Location: NBIC Glossary	No Attachment
<p>General Description: Revise definition of "Field"</p> <p>Subgroup: Repairs and Alterations</p> <p>Task Group: R. Miletti (PM), P. Gilston, M. Toth, J. Walker</p> <p>Explanation of Need: A "Field" site under the current definition could be multiple rented or leased spaces used for repairs/alterations, where there is no single or specific customer or job, but rather the locations(s) are used for conducting repair/alteration activities by personnel employed by the Certificate Holder on a continual basis.</p> <p>Jan. SG R&A 2023 Meeting Action: R. Miletti presented a PR. Revisions to NB-415 will be required first.</p> <p>July 2023 Meeting Action: P. Gilston presented that the NB-415 has been revised to add definitions of “Temporary Locations” so this proposal is being worked on. This was a PR.</p>		

Item Number: A21-43	NBIC Location: Part 3, Glossary	No Attachment
General Description: Defining and revising "Practicable" and "Practical" within the NBIC		
Subgroup: Repairs and Alterations		
Task Group: M. Toth (PM), B. Underwood		
Explanation of Need: Defining and revising Practicable and Practical within the NBIC and revising where applicable		
Jan. SG R&A 2023 Meeting Action: M. Toth presented a PR.		
July 2023 Meeting Action: T. Hellman presented a PR.		

Item Number: A21-44	NBIC Location: Part 3, Glossary	No Attachment
General Description: Defining "De-Rating" within Part 3		
Subgroup: Repairs and Alterations		
Task Group: M. Toth (PM), B. Underwood, J. Walker, M. Wadkinson, L. Dutra		
Explanation of Need: Defining de-rating within Part 3		
Jan. SG R&A 2023 Meeting Action: M. Toth presented a PR.		
July 2023 Meeting Action: T. Hellman presented a PR.		

Item Number: A21-45	NBIC Location: Part 3, Supplements	Attachment 3
General Description: Add a supplement to address oil, gas and chemical repair & alteration scope		
Subgroup: Repairs and Alterations		
Task Group: R. Underwood (PM)		
Explanation of Need: There has been interest from companies operating with the Oil, Gas and Chemical industries to address certain types of repairs that may exist in ASME PCC-2 or API. NBIC does not have many of these repair methods within the book.		
Jan. SG R&A 2023 Meeting Action: B. Underwood presented a PR.		
July 2023 Meeting Action: B. Underwood presented the initial scope statement and plan for moving “engineered repairs” currently in the NBIC to the new supplement. The proposal in moving existing ‘engineered repairs’ to a new supplement was revised and UA .		

Item Number: A21-53	NBIC Location: Part 3, S8.5 a)	No Attachment
General Description: Post Repair Inspection of weld repairs to CSEF steels		
Subgroup: Repairs and Alterations		
Task Group: P. Gilston (PM), E. Cutlip. A. Triplett		
Explanation of Need: The requirement for Inspector involvement in post-repair inspections to CSEF weld repairs is to ensure future safe operation of the boiler. This is a function of the inservice Authorized Inspection Agency, not the Repair Inspector, whose duties end with completion of repair documentation.		
Jan. SG R&A 2023 Meeting Action: P. Gilston presented a PR .		
July 2023 Meeting Action: SG Inspection will be voting on this today. A. Triplett was added to TG. This was a PR.		

Item Number: A21-67	NBIC Location: Part 3, 3.4.9	No Attachment
General Description: Add welding requirements to plugging firetubes		
Subgroup: Repairs and Alterations		
Task Group: P. Gilston (PM), K. Moore, M. Quisenberry, T. Sieme, D, Kinney, S, Frazier,		
Explanation of Need: The current NBIC does not have enough direction or requirements for welding tube plugs in firetubes.		
Jan. SG R&A 2023 Meeting Action: P. Gilston presented a PR .		
July 2023 Meeting Action: P. Gilston presented the revision made to the proposal based on Rvw & Comment LB comments received. This proposal has passed SG LB already and will be in SC R&A tomorrow.		

Item Number: A21-82	NBIC Location: Part 3, 3.3.3(s)	Attachment 4
General Description: Examples of Repairs		
Subgroup: Repairs and Alterations		
Task Group: P. Davis (PM), R. Underwood, P. Gilston, , J. Ferreira, J. Walker, E. Cutlip, . P. Miller, L. Dutra		
Explanation of Need: Adding "repair" to 3.3.3(s) would then address use of different weld material. Currently 3.3.3(s) only addresses replacement of the part, not repair (Repair is addressed in 3.3.3(r)).		
Jan. SG R&A 2023 Meeting Action: P. Davis presented a PR.		
July 2023 Meeting Action: SG LB – Failed (14-0)(2 Abstained, 1 Not Voting). B. Underwood presented a revised proposal based on previous LB comments. The proposal was further revised based on the discussion and was UA .		

Item Number: A22-18	NBIC Location: Part 3, Glossary	No Attachment
General Description: Definition of blowdown and blowoff		
Subgroup: Repairs and Alterations		
Task Group: K. Moore (PM). M. Quisenberry		
Explanation of Need: These terms are not consistently used throughout the industry. This is to provide guidance to use the correct term when addressing the equipment or the action.		
Jan. SG R&A 2023 Meeting Action: K. Moore presented a PR.		
July 2023 Meeting Action: K. Moore presented a PR.		

Item Number: A22-19	NBIC Location: Part 3, 5.2.2	Attachment 5
General Description: R Certificate Holders with Design Only Scope		
Subgroup: Repairs and Alterations		
Task Group: J. Ferreira (PM), R. Valdez, G. Scribner, B. Schaefer, M. Schaser.		
Explanation of Need: To add new paragraphs 5.2.2 d) and 5.2.2 e) which will provide guidance for R Certificate Holders with "Design Only" on which activities they are permitted to perform and how they and the Inspectors shall complete the R-2 Form.		
Jan. SG R&A 2023 Meeting Action: J. Ferreira presented a PR.		
July 2023 Meeting Action: M. Schaser presented. UA as revised		

Item Number: A22-41	NBIC Location: Part 3, 1.5	No Attachment
General Description: Reference NB-415 in Quality System		
Subgroup: Repairs and Alterations		
Task Group: P. Davis selected as PM. Added M. Carlson and J. Walker, L. Ponce, K. Moore		
Explanation of Need: Requirements in the NB-415 should be included in the R Cert. Holder's QC Manual. Examples: a) Notifying the National Board when an organization changes scope, ownership, name, location, address, or Inspection Agreement and b) Return of the stamp.		
Jan. SG R&A 2023 Meeting Action: P. Davis selected as PM. Added M. Carlson, L. Ponce and J. Walker to TG – This was a PR.		
July 2023 Meeting Action: K. Moore presented a PR.		

Item Number: A23-04	NBIC Location: Part 3, 3.3.4.6 a) 2)	No Attachment
<p>General Description: Address Flush Patch Plate Weld NDT</p> <p>Subgroup: Repairs and Alterations</p> <p>Task Group: J. Ferreira (PM), K. Moore, M. Schaser, T. McBee, F. Johnson, M. Schaser</p> <p>Explanation of Need: Requirements in the NB-415 should be included in the R Cert. Holder's QC Manual. Examples: a) Notifying the National Board when an organization changes scope, ownership, name, location, address, or Inspection Agreement and b) Return of the stamp.</p> <p>Jan. SG R&A 2023 Meeting Action: K. Moore presented. Added M. Schaser to TG. This was a PR.</p> <p>July 2023 Meeting Action: T. McBee presented. The proposal was revised and ultimately was given as a PR for further revisions.</p>		

New Action Items:

Item Number: A23-12	NBIC Location: Part 3	No Attachment
<p>General Description: Inspector involvement for repairs of wasted areas</p> <p>Subgroup: Repairs and Alterations</p> <p>Task Group: R. Valdez (PM), J. Ferreira</p> <p>Explanation of Need: Based on recommendations by CSB, should an Inspector be required to physically view equipment that is being repaired in a wasted area prior to any repair/alteration activity?</p> <p>July 2023 Meeting Action: R. Valdez presented that some of the CSB recommendations have been addressed in RCI-1 already and NBIC Part 3 does not need to address. A motion to Close w/No Action was UA.</p>		

Item Number: A23-13	NBIC Location: Part 3, 3.3.3 s)	Attachment 6
General Description: Consistent addressing of the term for weld metal		
Subgroup: Repairs and Alterations		
Task Group: P. Gilston (PM), W. Sperko, J. Siefert, T. Melfi, F. Johnson		
Explanation of Need: Item for addressing consistent addressing of the term for weld metal is being opened based on discussions on A21-82. Weld Metal vs Filler Metal vs Filler Material, etc.		
July 2023 Meeting Action: P. Gilston presented. The proposal was UA		

Item Number: A23-14	NBIC Location: Part 3, Table S9.2	No Attachment
General Description: Extension Instructions for Reports of Repair		
Subgroup: Repairs and Alterations		
Task Group: M. Quisenberry (PM)		
Explanation of Need: Additional text should be added to Instruction (29) of Table S9.2 of Supplement 9 (listing the "R" Cert. of Auth expiration date), to provide instructions on how to document if the "R" Cert. Holder is operating under an extension.		
July 2023 Meeting Action: M. Quisenberry presented a PR.		

Item Number: A23-21	NBIC Location: Part 3, 3.3.4.9	No Attachment
General Description: Boiler tube plug guidelines and inclusion or watertube boilers		
Subgroup: Repairs and Alterations		
Task Group: E. Cutlip (PM), P. Gilston, K. Moore, A. Triplett		
Explanation of Need: Currently both firetube and watertube boilers require a boiler tube be plugged when replacement of a tube is not practicable at the time the defective tube is detected.		
July 2023 Meeting Action: K. Moore presented a PR. A. Triplett was added to the TG.		

Item Number: A23-22	NBIC Location: Part 3, 2.5.3.4	Attachment 7
General Description: Changes to Part 3, 2.5.3.4 to clarify intent		
Subgroup: Repairs and Alterations		
Task Group: T. White (PM), B. Schaefer		
Explanation of Need: As written, this paragraph is ambiguous and confusing. The rewrite clarifies the paragraphs intent.		
July 2023 Meeting Action: T. White presented a proposal. The proposal was UA.		

Item Number: A23-24	NBIC Location: Part 3	No Attachment
General Description: Repairs to quick actuating closures		
Subgroup: Repairs and Alterations		
Task Group: T. McBee (PM), C. Becker, M. Schaser, A. Khssassi, R. Smith		
Explanation of Need: Put safe guidelines for repairs to quick actuating closures.		
July 2023 Meeting Action: T. McBee presented a PR, as this item is being worked in collaboration with Part 2.		

Item Number: A23-25	NBIC Location: Part 3, 5.11	Attachment 8
General Description: Name Plate replacement		
Subgroup: Repairs and Alterations		
Task Group: R. Valdez (PM), J. Ferreira		
Explanation of Need: This does not address missing name plates. NB136 is about the form not the name plate. This needs to address missing name plates as well. There should also be a reference to point the Stamp Holder Part 2 - 5.2		
July 2023 Meeting Action: R. Valdez presented. The proposal was revised and UA.		

Item Number: A23-29	NBIC Location: Part 3, 1.5.1 s)	No Attachment
General Description: Clarification of Intent		
Subgroup: Repairs and Alterations		
Task Group A. Triplett (PM), P. Becker		
Explanation of Need: The sentence is unclear as it currently reads. With the new wording it clarifies the intent.		
July 2023 Meeting Action: New PM selected – Andrew Triplett, as Mr. Chestnut will not be continuing with SG membership. Added Pat Becker as TG member. This was a PR .		

Item Number: A23-33	NBIC Location: Part 3, Table 2.3	No Attachment
General Description: Update Table 2.3 to remove dates		
Subgroup: Repairs and Alterations		
Task Group: J. Sekely (PM)		
Explanation of Need: Since the use of all current and previous versions of the listed SWPS's is permitted, there is no reason to date the listed SWPSs.		
July 2023 Meeting Action: Passed SG LB and will be on the SC Agenda tomorrow.		

Item Number: A23-35	NBIC Location: All Parts, 9.1	No Attachment
General Description: Definition of "non-load bearing attachment" (All Parts)		
Subgroup: Repairs and Alterations		
Task Group: Tom White (PM), A. Khssassi		
Explanation of Need: The term "nonload bearing attachment" is used as a basis for determining a routine repair but is not defined in the NBIC.		
July 2023 Meeting Action: T. White presented a PR.		

Item Number: A23-36	NBIC Location: Part 3, 4.2 a) and 4.4 b)	No Attachment
<p>General Description: Clarifying Rules for Using Alternative NDE Methods</p> <p>Subgroup: Repairs and Alterations</p> <p>Task Group: Tom White (PM), P. Miller</p> <p>Explanation of Need: It has been determined that there may be some confusion regarding allowable NDE methods for repairs and alterations. The existing language of 4.2 a) tells the reader that alternative NDE methods acceptable to the Inspector and, where required, the Jurisdiction, may be used provided the requirements of Section 4 are met. However, it is possible that the reader is not familiarizing themselves with all of the requirements of Section 4 prior to proposing an alternative NDE method. This change should help clarify and reinforce the requirements for alternative NDE methods for repairs and alterations.</p> <p>July 2023 Meeting Action: T. White proposed to CLOSE W/NO ACTION as this is addressed under A23-24. The proposal to Close was UA.</p>		

Item Number: A23-38	NBIC Location: Part 3, 1.1 a)	No Attachment
<p>General Description: Scope Clarification for Part 3</p> <p>Subgroup: Repairs and Alterations</p> <p>Task Group: M. Quisenberry (PM), E. Cutlip, J. Walker</p> <p>Explanation of Need: The owner or user's need to return equipment to service must never compromise the operational safety of the equipment or the process by which the operational safety of the equipment is assured. There is an interpretation that supports this notion by describing subjects permitted to be considered when determining whether a repair or alteration activity is practicable.</p> <p>July 2023 Meeting Action: M. Quisenberry presented a PR.</p>		

Item Number: A23-39	NBIC Location: Part 3, 3.3.1	No Attachment
General Description: Strengthening Prevention of Defect Recurrence		
Subgroup: Repairs and Alterations		
Task Group: M Quisenberry (PM), J. Walker, F. Johnson		
Explanation of Need: The existing text recommends, but does not require an investigation of the cause, extent, and likelihood of recurrence of defects. The existing text also has no requirement for anyone to act to prevent the recurrence of defects. Where root and/or proximate causes of defects are known, or could be determined, someone needs to act to prevent catastrophic failure of equipment.		
July 2023 Meeting Action: M. Quisenberry presented a PR .		

Item Number: A23-40	NBIC Location: Part 3, 3.3.4.1	No Attachment
General Description: Strengthening Requirements to Ensure Defect Removal		
Subgroup: Repairs and Alterations		
Task Group: L. Dutra (PM), E. Cutlip , A. Renaldo		
Explanation of Need: The existing text alludes to the potential need for nondestructive examination (NDE) to ensure complete removal of defects but does not require it. The means to ensure defects have been removed must be understood by all to ensure safety. There is an interpretation of the 2021 NBIC that compounds this issue permitting repair organizations to not follow the requirements of NBIC Part 3, 3.3.4.8 even when the characteristics of the defect cannot be fully established.		
July 2023 Meeting Action: L. Dutra selected as PM. This was a PR .		

Item Number: A23-41	NBIC Location: Part 3, 3.3.4.6 a) 2)	No Attachment
General Description: Strengthening Requirements for Defect Removal When Patching		
Subgroup: Repairs and Alterations		
Task Group: A. Khssassi (PM), L. Dutra, A. Renaldo		
Explanation of Need: The existing text requires the removal of defective material until sound material is reached but provides no requirements or guidance on means to employ to ensure complete removal of defective material. The means to ensure defects have been removed must be understood by all to ensure safety. There is an interpretation of the 2021 NBIC that compounds this issue permitting repair organizations to not follow the requirements of NBIC Part 3, 3.3.4.8 even when the characteristics of the defect cannot be fully established.		
July 2023 Meeting Action: New PM selected - A. Khssassi (PM), This was a PR .		

Item Number: A23-49	NBIC Location: Part 3, 3.2.1 a)	No Attachment
<p>General Description: Hardness testing of existing materials</p> <p>Subgroup: Repairs and Alterations</p> <p>Task Group: P. Becker (PM), W. Sperko</p> <p>Explanation of Need: Field hardness testing of existing materials may be difficult and produce erroneous results. It is usually unnecessary for determining properties required for selection of welding procedures. Unless needed, it should not be required to be performed. The purpose of verifying existing materials in Paragraph 3.2.1 a) is not to confirm acceptability of existing design, but to determine nominal composition for welding.</p> <p>July 2023 Meeting Action: P. Becker presented that the TG determined the current text does not need to be revised. The proposal to Close w/No Action was UA.</p>		

Item Number: A23-51	NBIC Location: Part 3, 1.5.1	Attachment 9
<p>General Description: Replace "legal" with "company" in 1.5.1 a) Title Page</p> <p>Subgroup: Repairs and Alterations</p> <p>Task Group: T. Hellman (PM)</p> <p>Explanation of Need: The National Board has not adopted the ASME policy regarding company and legal names. Per the ASME policy it is permissible to have two names on a Certificate of Authorization and the quality manual. The 2023 NBIC 1.5.1 a) "legal" term may cause confusion for certificate holders, their AIAs, and review teams. Proposal for 1.5.1 a): "The title page shall contain the Certificate Holder's legal<u>company</u> name, physical address, and scope of work."</p> <p>July 2023 Meeting Action: T. Hellman presented. The proposal was UA.</p>		

10. Future Meetings

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

11. Adjournment

Chair Boseo adjourned the meeting at 2:52 PM.

Respectfully submitted,

Terrence Hellman

Terrence Hellman

SG R&A Secretary

SG R&A -July 2023 ATTENDANCE

Person or Remote	First_name	Last_name	Company_name	Job_title	Email_address	Phone_number	Member or Visitor
1	Brian	Boseo	Burns & McDonnell Construction	QA Dept. Manager	bmboseo@burnsmcd.com	7089413016	M
1	Eric	Cutlip					M
	Paul	Davis					M
1	Louis	Dutra	Bay City Boiler		ldutra@baycityboiler.com	9253482881	M
1	Steve	Frazier	City of Seattle	Chief Boiler Inspector	steve.frazier@seattle.gov	206-684-8459	M
1	CRAIG	HOPKINS	Seattle Boiler Works, Inc.		chopkins@seattleboiler.com	2066790885	M
1	Frank	Johnson	Johnson Welding	owner	fjkeck22@aol.com	4193868450	M
1	Aziz	Khssassi	RA@gie du bActiment du QuA@bec	AIA program Coordinator	aziz.khssassi@rbq.gouv.qc.ca	5142615741	M
1	Don	Kinney					M
1	Tim	McBee	ARISE	Manager of Codes and Standards	timothy.mcbec@tuvsud.com	12174129300	M
1	Ben	Schaefer	AEP	Quality Control Manager	bschaefer@aep.com	614-949-3715	M
1	Trevor	Seime	State of North Dakota	Chief Boiler Inspector	tsseime@nd.gov	701-220-4723	M
1	James	Sekely					M
	John	Siefert					M
	Walter	Sperko	Sperko Engineering	Prez	wsperko@bellsouth.net	3366740600	M
1	Raymond	Spuhl					M
1	Marty	Toth					M
	Robert	Underwood					M
1	Rick	Valdez	ARB, INC	Quality Director	rvaldez@prim.com	661-331-6025	M
1	Jamie	Walker	Hayes Services	Quality Control Consultant	jdwalkman@yahoo.com	5634249877	M
1	Thomas	White	NRG Energy	Specialist IV	thomas.white@nrg.com	2817824972	M
	Richard	Anderson	International Code Council, Inc.	Director PMG Technical Resources	randerson@iccsafe.org	9706607320	
	Joseph	Arvizu III	HSI Group Inc	Operations Manager	jarvizu@hsigroupinc.com	916-549-1342	
1	Larry	Barr	Quality Steel Corp	Director of Engineering	lbarr@propanetank.com	4194103656	
	Pat	Becker					
1	Jeremy	Bowers	Hartford Steam Boiler	Manager	jeremy_bowers@hsb.com	3312011625	
1	Michael	Carlson	State of Washington	Chief Boiler/Pressure Vessel Inspector	camx235@lni.wa.gov	360-902-5270	
1	Riley	Collins	Eastman Chemical Company	Mechanical Engineer	rileycollins@eastman.com	4232295576	
	Julius	Dacanay	State of Hawaii	Chief Boiler Inspector	julius.j.dacanay@hawaii.gov	8085869141	
1	Caslav	Dinic	Technical Standards and Safety Authority - Ontario	Manager Technical Services	cdinic@tssa.org	16472820518	
1	Jon	Ferreira	The Harford Steam Boiler Inspection and Insurance Company	Technical Manager	jonathan_ferreira@hsb.com	12077456889	
1	George	Galanes	DTS Inc.	Consultant	ggalanes@diamondtechnicalservices.com	16306825782	
1	Philip	Gilston	The Hartford Steam Boiler and Inspection Co.	Principal Engineer, Codes & Standards	philip_gilston@hsb.com	2253240108	
1	Greg	Goossens	The National Board	Director of Jurisdictional Affairs	ggoossens@nbbi.org	16513417212	
1	Terrence	Hellman	National Board	Staff	thellman@nationalboard.org	16148888320	
1	Adam	Hinton	CSB				
1	Bernard	Hrubala	TUV Rheinland	Consultant	bhrubala@us.tuv.com	203-645-0746	
	Paul	Hunter	Lenzer				
	Stephen	Klejst	U.S. Chemical Safety Board	Executive Director	stephen.klejst@csb.gov	2025156965	
1	TIM	LEBEAU	Southern Company Services	Principal Engineer	tlebeau@southernco.com	12052884349	
1	Stacy	Marks	BVI&I				
1	Robert	McGuire	GE Nova				
1	Timothy	Memmer	Quality Steel Corp				
1	Bran	Moorelock					
	Tusharkumar	Patel	TUV INDIA PVT LTD	Inspection engineer	tusharpatel0914@gmail.com		
1	Tusharkumar	Patel	TUV NORD GROUP	Inspection engineer	ptushar@tuv-nord.com	919998907903	
	Luis	Ponce	National Board of Boiler and Pressure Vessel Inspectors	Manager of Technical Services	lponce@nbbi.org	6148888320	
1	Michael	Quisenberry					
	Drew	Sahi	CSB				
1	Matt	Schaser	The Equity Engineering Group, Inc.	Senior Engineer	mschaser@e2g.com	2165336143	
1	M. A.	SHAH	ABM Industrial Services Inc.		abmindustrialervices@gmail.com	3063515490	
1	paul	shanks	BVI&I	Technical Consultant	paul.shanks@onecis.com	8323164249	
	Timothy	Simmons	International Brotherhood of Boilermakers	International Vice President - Southeast	tsimmons@unionwelders.org	2053160518	
	Robert	Smith	Naval Facilities Engineering Command, Headquarters	Hyperbaric Certification Authority	robert.c.smith@navy.mil	7032236877	
	Andrew	Triplett	UT-Battelle, LLC	Boiler and Pressure Vessel Program Lead	triplett@ornl.gov	18652415969	
	Ronny	Truxell	RiddleBerger Brothers Inc	Boiler Division Manager/ QC Manager	truxellr@rbva.com	5405745964	
	Mark	Vogt	Luminant	Principal Engineer	mark.vogt@vistracorp.com	6182103161	
	Harold	Weisinger	Federal Railroad Administration	Mechanical Engineer / Steam Specialist	harold.weisinger@dot.gov	202-713-8702	
1	Harrington	Henry					
1	Edward	Wiggins					
39							

TEAMS MEETING SUMMARY:

1. Summary							
Meeting title	SG R&A - Part 3						
Attended participants	30						
Start time	7/11/23, 8:03:05 AM						
End time	7/11/23, 4:00:16 PM						

Meeting duration	7h 57m 10s					
Average attendance time	3h 19m 39s					
NOTE: CSB PRESENTATION @ 9:15 AM						
2. Participants						
Name	First Join	Last Leave	In-Meeting Duration	Email	Participant ID (UPN)	Role
Terrence Hellman	7/11/23, 8:03:21 AM	7/11/23, 3:53:35 PM	7h 50m 14s	THellman@nationalboard.org	thellman@nationalboard.org	Organizer
Mark Clemens	7/11/23, 8:04:35 AM	7/11/23, 4:00:16 PM	7h 47m 9s	mclemens@nationalboard.org	mclemens@nationalboard.org	Presenter
Henry, Harrington	7/11/23, 8:31:05 AM	7/11/23, 10:29:03 AM	1h 45m 58s	Harrington.Henry@tuvsud.com	henry-ha@us001.itgr.net	Presenter
Ferreira Jonathan - Hartford-Remot	7/11/23, 8:38:48 AM	7/11/23, 1:27:57 PM	4h 49m 6s	Jonathan_Ferreira@hsb.com	Jonathan_Ferreira@hsb.com	Presenter
Craig Hopkins (M) (Guest)	7/11/23, 8:50:46 AM	7/11/23, 8:55:19 AM	4m 32s			Presenter
Craig Hopkins (M) (Guest)	7/11/23, 8:55:58 AM	7/11/23, 3:53:57 PM	5h 39m 7s			Presenter
Jim Sekely (Guest)	7/11/23, 8:55:59 AM	7/11/23, 11:02:40 AM	2h 6m 41s			Presenter
Frazier, Steve	7/11/23, 8:55:59 AM	7/11/23, 3:53:43 PM	6h 57m 43s	Steve.Frazier@seattle.gov	steve.frazier@seattle.gov	Presenter
McGuire, Robert (GE Vernova)	7/11/23, 8:56:01 AM	7/11/23, 3:53:05 PM	6h 57m 4s	robert.b.mcguire@ge.com	212484782@ge.com	Presenter
Stacey MARKS	7/11/23, 8:57:13 AM	7/11/23, 3:52:52 PM	3h 30m 19s	stacey.marks@bureauveritas.com	stacey.marks@bureauveritas.com	Presenter
Collins, Riley M	7/11/23, 8:58:11 AM	7/11/23, 3:52:51 PM	6h 54m 39s	rileycollins@eastman.com	u775782@emn.com	Presenter
Morelock, Brian R	7/11/23, 8:58:48 AM	7/11/23, 2:56:37 PM	5h 57m 48s	morelock@eastman.com	u898713@emn.com	Presenter
Paul SHANKS	7/11/23, 9:00:10 AM	7/11/23, 3:52:49 PM	6h 52m 38s	Paul.Shanks@bureauveritas.com	Paul.Shanks@bureauveritas.com	Presenter
Timothy Memmer	7/11/23, 9:00:11 AM	7/11/23, 3:52:55 PM	6h 52m 43s	tmemmer@propanetank.com	tmemmer@propanetank.com	Presenter
Marty Toth	7/11/23, 9:03:36 AM	7/11/23, 11:57:52 AM	2h 14m 59s	mtoth@boiscotraininggroup.onmicrosoft.com	mtoth@boiscotraininggroup.onmicrosoft.com	Presenter
Wiggins, Edward F 'Eddie'	7/11/23, 9:15:40 AM	7/11/23, 10:07:47 AM	52m 7s	edward.wiggins@labor.alabama.gov	edward.wiggins@labor.alabama.gov	Presenter
Michelle Vance	7/11/23, 9:15:59 AM	7/11/23, 10:07:11 AM	51m 12s	mvance@nationalboard.org	mvance@nationalboard.org	Presenter
Dexter, David (DE)	7/11/23, 9:16:49 AM	7/11/23, 10:07:19 AM	50m 30s	dexterde@dow.com	U649306@dow.com	Presenter
Hartford, Christopher	7/11/23, 9:16:58 AM	7/11/23, 10:07:15 AM	50m 17s	Christopher_Hartford@cinfin.com	Christopher_Hartford@CINFIN.COM	Presenter
Kennedy, Randy	7/11/23, 9:17:01 AM	7/11/23, 10:07:24 AM	50m 23s	rkennedy@babcock.com	rkennedy@bwes.net	Presenter
Jason Safarz	7/11/23, 9:17:01 AM	7/11/23, 10:07:23 AM	50m 22s	JSafarz@karldungsusa.com	JSafarz@karldungsusa.com	Presenter
Jodi Metzmaier	7/11/23, 9:17:03 AM	7/11/23, 10:07:11 AM	50m 8s	JMetzmai@nationalboard.org	jmetzmai@nationalboard.org	Presenter
Clark, James J	7/11/23, 9:17:11 AM	7/11/23, 10:08:53 AM	51m 42s	James.Clark@worthingtonindustries.com	James.Clark@worthingtonindustries.com	Presenter
Jim Hadley (Guest)	7/11/23, 9:17:36 AM	7/11/23, 10:07:17 AM	49m 41s			Presenter
Joseph Arvizu III (Guest)	7/11/23, 9:17:51 AM	7/11/23, 10:07:17 AM	49m 26s			Presenter
Hackworth, William	7/11/23, 9:19:26 AM	7/11/23, 10:07:15 AM	47m 49s	William.Hackworth@tuvsud.com	Hackw-Wi@us001.itgr.net	Presenter
M. A. Shah	7/11/23, 9:19:42 AM	7/11/23, 3:59:28 PM	6h 13m 58s			Presenter
Jonathan Ellis	7/11/23, 9:23:10 AM	7/11/23, 3:53:39 PM	44m 21s	JEllis@nationalboard.org	jellis@nationalboard.org	Presenter
James Kerr	7/11/23, 11:03:22 AM	7/11/23, 3:52:04 PM	4h 48m 41s	jkerr@proparinc.com	jkerr@proparinc.com	Presenter
Jim Sekely - Member (Guest)	7/11/23, 11:09:52 AM	7/11/23, 1:38:22 PM	2h 28m 29s			Presenter
3. In-Meeting Activities						
Name	Room Type	Room Name	Join Time	Leave Time	Duration	Role
Terrence Hellman	Main meeting		7/11/23, 8:03:21 AM	7/11/23, 3:53:35 PM	7h 50m 14s	THellman@nationalboard.org
Mark Clemens	Main meeting		7/11/23, 8:04:35 AM	7/11/23, 8:14:52 AM	10m 17s	mclemens@nationalboard.org
Mark Clemens	Main meeting		7/11/23, 8:15:58 AM	7/11/23, 8:18:38 AM	2m 39s	mclemens@nationalboard.org
Mark Clemens	Main meeting		7/11/23, 8:26:02 AM	7/11/23, 4:00:16 PM	7h 34m 13s	mclemens@nationalboard.org
Henry, Harrington	Main meeting		7/11/23, 8:31:05 AM	7/11/23, 9:07:55 AM	36m 50s	Harrington.Henry@tuvsud.com
Henry, Harrington	Main meeting		7/11/23, 9:19:54 AM	7/11/23, 10:29:03 AM	1h 9m 8s	Harrington.Henry@tuvsud.com
Ferreira Jonathan - Hartford-Remot	Main meeting		7/11/23, 8:38:48 AM	7/11/23, 10:11:12 AM	1h 32m 23s	Jonathan_Ferreira@hsb.com
Ferreira Jonathan - Hartford-Remot	Breakout room	Room 1	7/11/23, 10:11:12 AM	7/11/23, 10:12:18 AM	1m 5s	Jonathan_Ferreira@hsb.com
Ferreira Jonathan - Hartford-Remot	Main meeting		7/11/23, 10:12:19 AM	7/11/23, 1:27:57 PM	3h 15m 38s	Jonathan_Ferreira@hsb.com
Craig Hopkins (M) (Guest)	Main meeting		7/11/23, 8:50:46 AM	7/11/23, 8:55:19 AM	4m 32s	
Craig Hopkins (M) (Guest)	Main meeting		7/11/23, 8:55:58 AM	7/11/23, 11:05:58 AM	2h 9m 59s	
Craig Hopkins (M) (Guest)	Main meeting		7/11/23, 12:24:48 PM	7/11/23, 3:53:57 PM	3h 29m 8s	
Jim Sekely (Guest)	Main meeting		7/11/23, 8:55:59 AM	7/11/23, 11:02:40 AM	2h 6m 41s	
Frazier, Steve	Main meeting		7/11/23, 8:55:59 AM	7/11/23, 3:53:43 PM	6h 57m 43s	Steve.Frazier@seattle.gov
McGuire, Robert (GE Vernova)	Main meeting		7/11/23, 8:56:01 AM	7/11/23, 3:53:05 PM	6h 57m 4s	robert.b.mcguire@ge.com
Stacey MARKS	Main meeting		7/11/23, 8:57:13 AM	7/11/23, 10:51:57 AM	1h 54m 44s	stacey.marks@bureauveritas.com
Stacey MARKS	Main meeting		7/11/23, 12:07:38 PM	7/11/23, 12:49:55 PM	42m 16s	stacey.marks@bureauveritas.com
Stacey MARKS	Main meeting		7/11/23, 2:59:32 PM	7/11/23, 3:52:52 PM	53m 19s	stacey.marks@bureauveritas.com
Collins, Riley M	Main meeting		7/11/23, 8:58:11 AM	7/11/23, 3:52:51 PM	6h 54m 39s	rileycollins@eastman.com
Morelock, Brian R	Main meeting		7/11/23, 8:58:48 AM	7/11/23, 2:56:37 PM	5h 57m 48s	morelock@eastman.com
Paul SHANKS	Main meeting		7/11/23, 9:00:10 AM	7/11/23, 3:52:49 PM	6h 52m 38s	Paul.Shanks@bureauveritas.com
Timothy Memmer	Main meeting		7/11/23, 9:00:11 AM	7/11/23, 3:52:55 PM	6h 52m 43s	tmemmer@propanetank.com
Marty Toth	Main meeting		7/11/23, 9:03:36 AM	7/11/23, 11:13:25 AM	2h 9m 48s	mtoth@boiscotraininggroup.onmicro
Marty Toth	Main meeting		7/11/23, 11:52:40 AM	7/11/23, 11:57:52 AM	5m 11s	mtoth@boiscotraininggroup.onmicro
Wiggins, Edward F 'Eddie'	Main meeting		7/11/23, 9:15:40 AM	7/11/23, 10:07:47 AM	52m 7s	edward.wiggins@labor.alabama.gov
Michelle Vance	Main meeting		7/11/23, 9:15:59 AM	7/11/23, 10:07:11 AM	51m 12s	mvance@nationalboard.org
Dexter, David (DE)	Main meeting		7/11/23, 9:16:49 AM	7/11/23, 10:07:19 AM	50m 30s	dexterde@dow.com
Hartford, Christopher	Main meeting		7/11/23, 9:16:58 AM	7/11/23, 10:07:15 AM	50m 17s	Christopher_Hartford@cinfin.com
Kennedy, Randy	Main meeting		7/11/23, 9:17:01 AM	7/11/23, 10:07:24 AM	50m 23s	rkennedy@babcock.com
Jason Safarz	Main meeting		7/11/23, 9:17:01 AM	7/11/23, 10:07:23 AM	50m 22s	JSafarz@karldungsusa.com
Jodi Metzmaier	Main meeting		7/11/23, 9:17:03 AM	7/11/23, 10:07:11 AM	50m 8s	JMetzmai@nationalboard.org
Clark, James J	Main meeting		7/11/23, 9:17:11 AM	7/11/23, 10:08:53 AM	51m 42s	James.Clark@worthingtonindustries.com
Jim Hadley (Guest)	Main meeting		7/11/23, 9:17:36 AM	7/11/23, 10:07:17 AM	49m 41s	

Joseph Arvizu III (Guest)	Main meeting		7/11/23, 9:17:51 AM	7/11/23, 10:07:17 AM	49m 26s		Presenter
Hackworth, William	Main meeting		7/11/23, 9:19:26 AM	7/11/23, 10:07:15 AM	47m 49s	William.Hackworth@tuvsud.com	Presenter
M. A. Shah	Main meeting		7/11/23, 9:19:42 AM	7/11/23, 10:51:07 AM	1h 31m 24s		Presenter
M. A. Shah	Main meeting		7/11/23, 10:54:17 AM	7/11/23, 1:18:26 PM	2h 24m 8s		Presenter
M. A. Shah	Main meeting		7/11/23, 1:41:02 PM	7/11/23, 3:59:28 PM	2h 18m 26s		Presenter
Jonathan Ellis	Main meeting		7/11/23, 9:23:10 AM	7/11/23, 10:07:17 AM	44m 6s	JEllis@nationalboard.org	Presenter
Jonathan Ellis	Main meeting		7/11/23, 3:53:23 PM	7/11/23, 3:53:39 PM	15s	JEllis@nationalboard.org	Presenter
James Kerr	Main meeting		7/11/23, 11:03:22 AM	7/11/23, 3:52:04 PM	4h 48m 41s	jkerr@proparinc.com	Presenter
Jim Sekely - Member (Guest)	Main meeting		7/11/23, 11:09:52 AM	7/11/23, 1:38:22 PM	2h 28m 29s		Presenter



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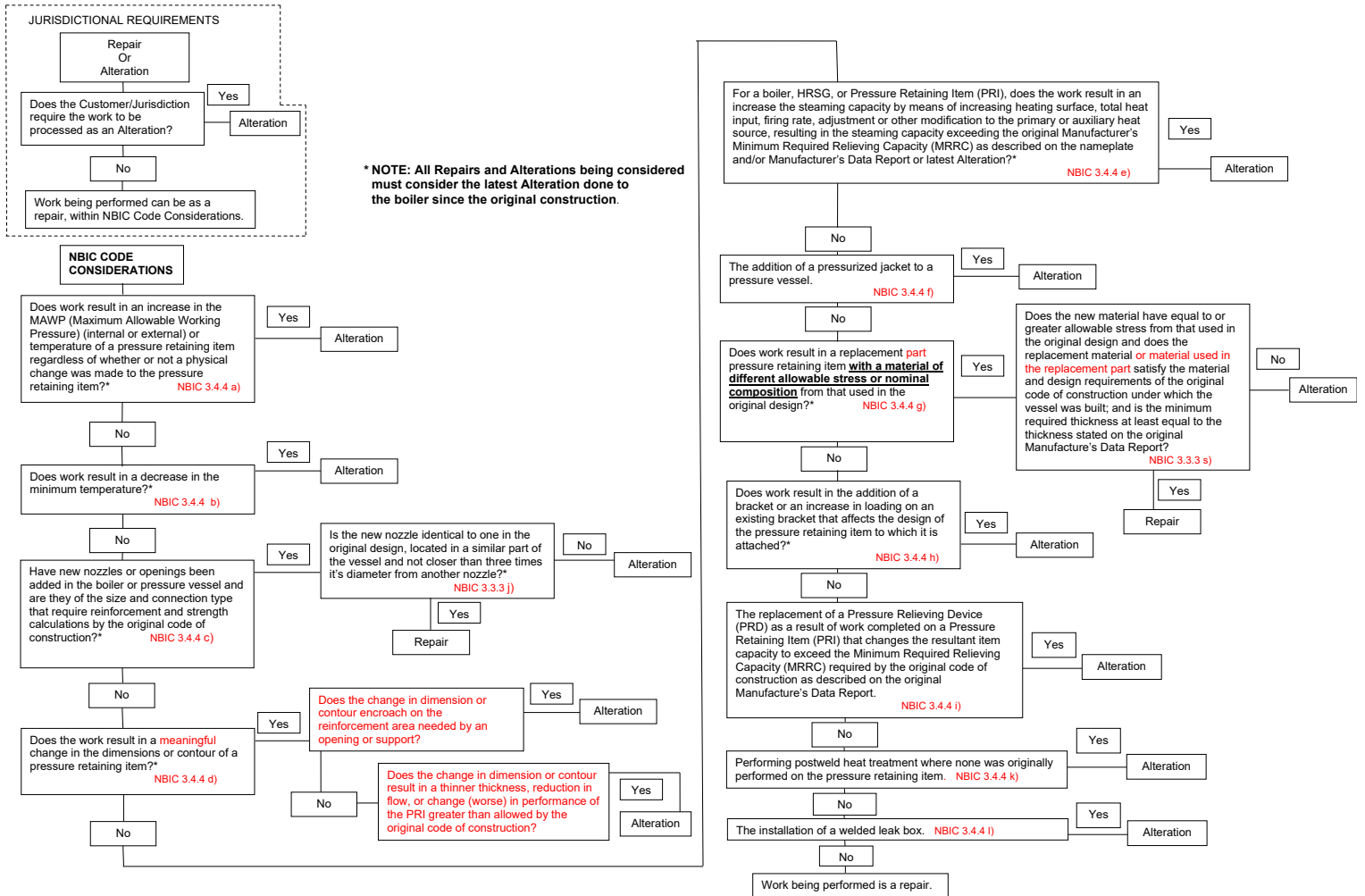
PROPOSED REVISION OR ADDITION

Item No. A 21-12	
Subject/Title Revision to modify Term 'Alteration' and to add Guidance on classifying a Repair vs Alteration	
NBIC Location Part: Repairs and Alterations; Section: Section 3	
Project Manager and Task Group P. Becker (PM), K. Moore, B. Underwood, P. Shanks, S. Chestnut, T. Seime	
Source (Name/Email) Pat Becker, pabecker@babcock.com	
Statement of Need <p>Interpretations continue to be received based on confusion in current guidance given in Section 3, Part 3 of Repairs and Alterations. Of particular issue is the heavily relied upon 'List of Examples' of Repairs and Alterations. The lists are considered a 'shortcut' to understanding which activities should be classified as repairs and which should be alterations. However, the examples are not intended to be used without the understanding of the rest of the subject matter in Part 3, Section 3...nor are they all-inclusive or exclusive.</p> <p>Experience levels can vary widely among all 'stakeholder' categories, i.e. Owner/User, Authorized Inspector, Certificate Holder, In-Service inspector, Jurisdictional Authority etc.</p> <p><i>From the Forward: The general philosophy underlying the NBIC is to parallel those provisions of the original code of construction, as they can be applied to post-construction activities. The NBIC does not contain rules to cover all details of post-construction activities. Where complete details are not given, it is intended that individuals or organizations, subject to the acceptance of the Inspector and Jurisdiction when applicable, provide details for post-construction activities that will be as safe as otherwise provided by the rules in the original code of construction.</i></p> <p>The Intent of any effort is to improve the user experience while being cognizant not to overly restrict. The task group is paying attention to industry concerns and suggestions including the potential impact of any changes to existing equipment and installations. Existing Interpretations are being 'walked thru' the decision tree and otherwise reviewed against the addition of any content. The goal is to provide clearer guidance with less conflicting or overlapping examples or information.</p>	
Background Information Update of Part 3 Section 3 to improve User experience and clarify definition of 'Alteration'. Updated 'problematic' example lists to eliminate 'conflicting examples'.	
Existing Text	Proposed Text
<p style="text-align: center;">PART 3, SECTION 3 REPAIRS AND ALTERATIONS — REQUIREMENTS FOR REPAIRS AND ALTERATIONS</p> <p>3.1 SCOPE</p> <p>This section provides requirements and guidelines for materials, replacement parts, and methods used when performing repairs and alterations to pressure-retaining items. Specific repair or alteration methods for other types of pressure equipment are in NBIC Part 3, Section 6.</p> <p>3.2 GENERAL REQUIREMENTS FOR REPAIRS AND ALTERATIONS</p> <p>(21) 3.2.1 MATERIAL REQUIREMENTS FOR REPAIRS AND ALTERATIONS</p>	<p style="text-align: center;">PART 3, SECTION 3 REPAIRS AND ALTERATIONS — REQUIREMENTS FOR REPAIRS AND ALTERATIONS</p> <p><u>3.0 INTRODUCTION</u></p> <p><u>This Section provides information on the requirements for repairs and alterations to pressure retaining items. Information on how to classify, perform, verify, and document acceptable repair and alteration activities may be found throughout Part 3 Sections and Supplements (Refer to the Table of Contents for detail on the location of relevant information). It is the intent that this Section be used in cooperation with local jurisdictional authorities and with an understanding of the applicable pressure vessel code regulations relevant to the scope of repair or alteration activity. Note that the guidance herein and the examples given are not all inclusive and are intended to be representative of cases and activities commonly considered either a repair or alteration.</u></p> <p>3.1 SCOPE</p> <p>This section provides requirements and guidelines for materials and methods used when performing repairs and alterations to pressure-retaining items. Specific repair or alteration methods for other types of pressure equipment are in NBIC Part 3, Section 6.</p>

**SUPPLEMENT X
CLASSIFYING REPAIRS AND ALTERATIONS**

SX.1 SCOPE

**FIGURE SX.1
DECISION TREE (LOGIC DIAGRAM) FOR DETERMINING REPAIR OR ALTERATION ACTIVITY CLASSIFICATION**



SUPPLEMENT XX – ENGINEERED REPAIRS AND ALTERATIONS

SXX.1 SCOPE

- a) This supplement provides general and specific requirements for engineered repairs and alterations to pressure retaining items. These requirements shall be considered as supplemental requirements to those set forth in the main Parts of the NBIC.
- b) Engineered repairs and alterations contained in this supplement shall require acceptance by the Inspector and, when required, by the Jurisdiction. Procedures and methodologies established and proven in the industry are leveraged through references to published documents. Supplemental requirements are provided as necessary.
- c) Engineered repairs and alterations should include items such as inspection procedures, material identification and/or testing, a complete characterization of the damage assessment, and knowledge of process conditions.
- d) The remaining life and inservice monitoring requirements of any engineered repair or alteration should be established prior to implementation.
- e) Careful consideration shall be given to repair or alteration of pressure-retaining items that have been fabricated of either creep strength enhanced ferritic steel materials or ferritic steel materials enhanced by heat treatment. The tensile and creep strength properties of these materials can be degraded by not following specific welding procedure specifications and heat treatment requirements. The user is cautioned to seek technical guidance for welding and heat treating requirements for these materials in accordance with the original code of construction.
- f) A risk assessment may be necessary for certain engineered repair and alteration activities to ensure safe operation of equipment and minimal risk to personnel.

Revision to 2.2.1

- *add letters “a” and “b” to existing paragraphs and add new “c” paragraph which is wording from ASME Section I*

2.2.1 PROCEDURE SPECIFICATIONS

- a) A procedure specification is a written document providing direction to the person applying the material joining process. Welding, brazing and fusing shall be performed in accordance with procedure specifications for welding (WPS), brazing (BPS), and fusing (FPS) qualified in accordance with the original code of construction or the construction standard or code selected. When this is not possible or practicable, the procedure specification may be qualified in accordance with ASME Section IX.
- b) Welding procedures may be simultaneously qualified by more than one organization under the rules of ASME Section IX QG-106.4. The “R” Certificate Holder’s written quality control program shall include requirements for addressing the rules of Section IX QG-106.4.
- c) The “R” Certificate Holder is responsible for the selection of welding consumables and the welding process. Welding electrodes and filler metal shall be selected to provide deposited weld metal of chemical composition and mechanical properties suitable with the materials to be joined and the service conditions anticipated.

5.2.2 PREPARATION OF FORM R-2 (REPORT OF ALTERATION)

- a) Using the instructions found in Table S9.3 of Supplement 9, initial preparation of Form R-2, including gathering and attaching supporting documentation, shall be the responsibility of the “R” Certificate Holder responsible for the design portion of the alteration. The design organization shall complete and sign the “Design Certification” section of the Form R-2. An Inspector shall indicate acceptance of the design by signing the “Certificate of Design Change Review” section of the Form R-2.
- a)b) “R” Certificate Holders whose scope is “Design Only” can perform code calculations for re-rating and alterations as defined in this Part but are prohibited from performing physical work (construction work) to the pressure retaining item except for the “R” Stamping, NDE, and/or final pressure testing; as applicable, provided the controls are included in the Quality Management System.
- c) The information describing an alteration to a pressure-retaining item shall be identified on Form R-2 with a complete description of the scope of work for physical or non-physical changes.
1. ~~When the scope of work represents a change that will increase the Minimum Required Relieving Capacity (MRRRC) of a pressure-retaining item, such as a change in heating surface, Maximum Designed Steaming Capacity (MDSC), or BTU/hr (W) heating capacity, the new MRRRC shall be documented on Form R-2 and indicated on the appropriate nameplate of NBIC Part 3, Figure 5.7.5-b or NBIC Part 3, Figure 5.7.5-c.~~
- d) Final preparation of Form R-2, including gathering and attaching supporting reports, shall be the responsibility of the “R” Certificate Holder that performed the construction portion of the alteration. The construction organization shall complete the Form R-2 provided by the design organization, including the “Construction Certification” section of the form. An Inspector shall indicate that the work complies with the applicable requirements of this code by completing and signing the “Certificate of Inspection” section of the form. ~~When no construction work is performed (e.g., a re-rating with no physical changes), the “R” Certificate Holder responsible for the design shall prepare the Form R-2, including gathering and attaching of supporting documentation.~~
- b)e) The Construction Certificate section of the form shall only be completed when construction work has been performed.
- e)f) The following shall be attached to and become a part of completed Form R-2:
1. For ASME boilers and pressure vessels, a copy of the original Manufacturer’s Data Report, when available.
 2. Form R-3, Report of Parts Fabricated by Welding, Manufacturer’s Partial Data Reports, or Certificates of Compliance, if applicable; and
 3. For other than ASME, the manufacturer’s reports (i.e., reports required by the original code of construction, etc.), when available.



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PROPOSED REVISION OR ADDITION

Item No. A 23-13 Rev 02	
Subject/Title Referencing for Weld Metal, Filler Metal etc.	
NBIC Location	
Project Manager and Task Group P Gilston (PM), J. Siefert, W. Sperko, M. Vance, T Melfi, F Johnson	
Source (Name/email) January 2023, Sub-Committee Discussion	
Statement of Need Within Part 3, welding consumables are referred to in several different ways e.g., filler metal(s) (52 times), weld metal (11 times), consumable (14 times), welding electrode (once) etc. This item is to review these references, create definitions and bring consistency for reference descriptions.	
Background Information When discussing weld metal, references can be made to the weld consumable itself, or the deposited weld metal. Often we describe the 'nominal composition' for the weld, this is normally based on the actual weld metal deposited in a weld joint. Various factors can influence the chemistry of a deposited weld metal, including, but not limited to dilution with the base metal, protective fluxes, shielding gas etc.	
Existing Text None	Proposed Text 9.1 DEFINITIONS <u>Weld - A weld consists of weld metal and heat affected zones (HAZ)</u> <u>Weld Metal - Metal in a fusion weld consisting of that portion of the base metal and filler metal melted during welding. When no filler metal is added this is known as an autogenous weld.</u> <u>Filler Metal - The metal that is added during a welding, brazing or soldering operation.</u> <u>Weld Consumable - Electrodes, wires and fluxes that are melted during a welding operation.</u>

VOTE							
Committee	Approved	Disapproved	Abstained	Not Voting	Passed	Failed	Date



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PROPOSED REVISION OR ADDITION

Item No.	
23-	
Subject/Title	
Welding Method 4	
NBIC Location	
Part: Repairs and Alterations; Section: 3; Paragraphs: 2.5.3.4 a)	
Project Manager and Task Group	
PM – Tom White	
Source (Name/email)	
Tom White/thomas.white@nrg.com	
Statement of Need	
Reading up on Welding Method 4 in Part 3 I found the wording ambiguous and confusing. I have proposed the following rewrite for 2.5.3.4 – a)	
Background Information	
The second sentence states repair welds shall not penetrate the full thickness. The next sentence contradicts that statement and permits under the certain conditions. I propose the following rewrite for clarity.	
Existing Text – 2.5.3.4	Proposed Text – 2.5.3.4
<p>When using this method, the following is required:</p> <p>a) This method is limited to repair welds in pressure retaining items for which the applicable rules of the original code of construction did not require notch toughness testing. The repair depth for temper bead repairs to pressure retaining items is limited to welds not penetrating though the full thickness.</p> <p>Full thickness temper bead weld repairs are permitted under the following conditions:</p> <ol style="list-style-type: none"> 1) ASME Section VIII, Division 2 pressure vessels, where application of PWHT on in-service vessels has been demonstrated to cause harm to vessel material. 2) For tube-to-header welds in steam service. <p>Full thickness weld repairs shall be completed per NBIC Part 3, 3.3.5 with the following requirements:</p> <ol style="list-style-type: none"> 1) The full thickness repair shall be verified as being full penetration. 2) Volumetric examination of the full thickness weld shall be performed. 	<p>When using this method, the following is required:</p> <p>a) This method is limited to repair welds in pressure retaining items for which the applicable rules of the original code of construction did not require notch toughness testing. The repair depth for temper bead repairs to pressure retaining items shall not penetrate the full thickness except as permitted below. is limited to welds not penetrating though the full thickness.</p> <p>Full thickness temper bead weld repairs are permitted under the following conditions:</p> <ol style="list-style-type: none"> 1) ASME Section VIII, Division 2 pressure vessels, where application of PWHT on in-service vessels has been demonstrated to be detrimental cause harm to the vessels material, or 2) For tTube-to-header welds in steam service. <p>Full thickness weld repairs, as permitted above, shall be completed per in accordance with NBIC Part 3, 3.3.5 and with the following additional requirements:</p> <ol style="list-style-type: none"> 1) The full thickness repair shall be verified as being full penetration. 2) Volumetric examination of the full thickness weld shall be performed.

VOTE							
Committee	Approved	Disapproved	Abstained	Not Voting	Passed	Failed	Date



PROPOSED REVISION OR ADDITION

Item No. A 23-25	
Subject/Title Name Plate Replacement	
NBIC Location Part: Repairs and Alterations; Section: 5; Paragraph: 11	
Project Manager and Task Group Rick Valdez	
Source (Name/Email) Kathy Moore / kathymoore@joemoorecompany.com	
Statement of Need This does not address missing name plates. NB136 is about the form, not the name plate. This needs to address missing name plates as well. There should be a reference to the Stamp holder Part 2 Par. 5.2	
Background Information Many Stamp holders complete NB136, fabricate the replacement name plate as well as hang the plate. I feel there should be clarification in Part 3.	
Existing Text	Proposed Text See attached proposed text:

VOTE:							
COMMITTEE	Approved	Disapproved	Abstained	Not Voting	Passed	Failed	Date

Proposed change NBIC Part 3, 5.11 & S6.15

New changes:

5.11 REMOVAL, LOSS, OR DUPLICATION OF ORIGINAL STAMPING OR NAMEPLATE

If it becomes necessary to remove original stamping, the Inspector shall, subject to the approval of the Jurisdiction, witness making of a facsimile of stamping, the obliteration of old stamping, and transfer of stamping to the new item. When stamping is on a nameplate, the Inspector shall witness transfer of nameplate to the new location. Any relocation shall be described on the applicable NBIC “R” Form. The re-stamping or replacement of a code symbol stamp shall be performed only as permitted by the governing code of construction.

If a nameplate or stamping is lost, indistinct, or missing entirely, a new nameplate or re-stamping shall be obtained in accordance with the governing code of construction and the guidance and requirements found in NBIC Part 2, 5.2.1 - Indistinct Stamping or Nameplate is Lost, Illegible, or Detached, 5.2.2 - Reporting, and 5.2.3 - Replacement of Duplicate Nameplates.

S6.18 GENERAL STAMPING REQUIREMENTS

The stamping ~~of~~ or attaching of a nameplate to a pressure-retaining item, shall indicate that the work was performed in accordance with the requirements of this code and any requirements of the Competent governing Authority. Such stamping or attaching of a nameplate shall be done only with the knowledge and authorization of the Inspector. The “R” Certificate Holder responsible for the repair or the construction portion of the modification/alteration shall apply the stamping. For a re-rating where no physical changes are made to the pressure-retaining item, the “R” Certificate Holder responsible for the design shall apply the stamping. Requirements for stamping and nameplate information are shown in NBIC Part 3, Section 5. *For application of new replacement stamping or the attachment of a new or duplicate nameplate when the original is lost, illegible, or a duplicated is desired, see NBIC Part 2, 5.2 requirements.*

(Table of Contents associated change)

Current:

5.11 Removal of Original Stamping or Nameplate91

New:

5.11 Removal, **Loss, or Duplication** of Original Stamping or Nameplate.....91

Proposal 23-25 Background:

Existing relevant wording/Sections/Paragraphs:

PART 2, SECTION 5 REPAIRS AND ALTERATIONS — CERTIFICATION/DOCUMENTATION AND STAMPING

5.2.1 INDISTINCT STAMPING OR NAMEPLATE IS LOST, ILLEGIBLE, OR DETACHED.

- a) When the stamping on a pressure –retaining item becomes indistinct or the nameplate is lost, illegible or detached, but traceability to the original pressure-retaining item is still possible the Inspector shall instruct the owner or user to have the nameplate or stamped data replaced. All re-stamping shall be done in accordance with the original code of construction, except as modified herein. Request for permission to re-stamp data or replace nameplates shall be made to the Jurisdiction in which the nameplate or stamping is reapplied for approval. Application shall be made on the *Replacement of Stamped Data Form*, NB-136 (see 5.3.2) which is available on the National Board website (www.nationalboard.org). Proof of traceability to the original nameplate or stamping and other such data, as is available, shall be furnished with the request. The manufacturer of the pressure-retaining item, if available, shall be contacted prior to replacing a nameplate or stamped data in order to verify applicable code requirements.
- b) When there is no Jurisdiction, documentation used to verify traceability, and the *Replacement of Stamped Data Form*, NB-136 shall be submitted to a National Board Commissioned Inspector for approval.
- c) All re-stamping or replacement of nameplates shall be witnessed by a National Board Commissioned Inspector.
- d) When the nameplate is welded to the pressure retaining boundary, the welding must be done by a National Board “R” Stamp Holder.
- e) Permission from the Jurisdiction or National Board Commissioned Inspector is not required for the reattachment of nameplates that are partially attached.
- f) The re-stamping or replacement of a code symbol stamp shall be performed only as permitted by the governing code of construction.
- g) Replacement nameplates or stamped data shall be clearly marked “Replacement”.
- h) When traceability cannot be established, the Jurisdiction where the pressure retaining item is installed shall be contacted for approval prior to replacing a nameplate or re-applying stamping.

5.2.2 REPORTING

- a) The completed Form NB-136 with a facsimile of the replacement stamping or nameplate applied and appropriate signatures shall be filed with the Jurisdiction, if applicable and the National Board by the owner, user or “R” Stamp Holder.
- b) The owner or user shall retain all documentation provided for traceability with the completed form NB-136 for as long as the pressure-retaining item is in their ownership or use. If the pressure-retaining item is sold, Form NB-136 along with the supporting documentation shall be provided to the new owner. If it becomes necessary to remove original stamping, the Inspector shall, subject to the approval of the Jurisdiction, witness making of a facsimile of stamping, the obliteration of old stamping, and transfer of stamping to the new item. When stamping is on a nameplate, the Inspector shall witness transfer of nameplate to the new location. Any relocation shall be described on the applicable NBIC “R” Form. The re-stamping or replacement of a code symbol stamp shall be performed only as permitted by the governing code of construction.

5.7 STAMPING REQUIREMENTS FOR REPAIRS AND ALTERATIONS

5.7.1 GENERAL

The stamping of or attachment of a nameplate to a pressure-retaining item shall indicate that the work was performed in accordance with the requirements of this code. Such stamping or attaching of a nameplate shall be done only with the knowledge and authorization of the Inspector. The “R” Certificate Holder responsible for repair or the construction portion of the alteration shall apply stamping. For a re-rating where no physical changes are made to the pressure-retaining item, the “R” Certificate Holder responsible for design shall apply stamping.

5.11 REMOVAL OF ORIGINAL STAMPING OR NAMEPLATE

If it becomes necessary to remove original stamping, the Inspector shall, subject to the approval of the Jurisdiction, witness making of a facsimile of stamping, the obliteration of old stamping, and transfer of stamping to the new item. When stamping is on a nameplate, the Inspector shall witness transfer of nameplate to the new location. Any relocation shall be described on the applicable NBIC "R" Form. The re-stamping or replacement of a code symbol stamp shall be performed only as permitted by the governing code of construction.

S6.15 GENERAL STAMPING REQUIREMENTS

The stamping of or attaching of a nameplate to a pressure-retaining item shall indicate that the work was performed in accordance with the requirements of this code and any requirements of the Competent Authority. Such stamping or attaching of a nameplate shall be done only with the knowledge and authorization of the Inspector and Competent Authority. The "R" Certificate Holder responsible for the repair or the construction portion of the modification/alteration shall apply the stamping. For a re-rating where no physical changes are made to the pressure-retaining item, the "R" Certificate Holder responsible for the design shall apply the stamping. Requirements for stamping and nameplate information are shown in NBIC Part 3, Section 5.

a) Title Page

The title page shall contain the Certificate Holder's legal company name, physical address, and scope of work.

The scope of work shall clearly indicate the type of repairs and/or alterations the Certificate Holder is capable of and intends to carry out. The scope of work indicated shall include the following, as applicable.

- 1) Repairs Only at either Shop or Field or Both
- 2) Alterations Only at either Shop or Field or Both
- 3) Repairs and Alterations at either Shop or Field or Both
- 4) Metallic Repairs
- 5) Non-Metallic Repairs
- 6) Design Only

b) Contents Page

The Quality System shall contain a page listing the contents of the manual by section, number (if applicable), revision level, and date of each section, as required for manual control.

c) Statement of Authority and Responsibility

A dated *Statement of Authority and Responsibility* shall clearly identify that the Quality System has the full support of management and endorsed by signature of a senior management official. The *Statement* shall also include:

- 1) A statement that all repairs or alterations carried out by the Certificate Holder shall meet the requirements of the NBIC and the Jurisdiction, as applicable;
- 2) The title of individual who has the authority and responsibility charged with the development and implementation of the Quality System and the freedom to identify quality problems, and to initiate, recommend and provide solutions and where required, stop or prohibit work from continuing; and
- 3) A statement that conflicts or disagrees with in the implementation of the Quality System shall be brought to the attention of the Certificate Holder's senior management official for a resolution that will not conflict with code, jurisdiction/regulatory authority, or Quality System requirements.

d) Quality System Control

The Quality System shall define how revisions of individual sections, exhibits or documents will be identified, and how distribution and retrieval will be achieved to ensure only the latest accepted revisions are available for use. In addition, the following shall be documented:

- 1) The title of the individual responsible for the preparation and approval of the Quality System including review of code editions, standards, and jurisdictional requirements.
- 2) Acceptance from the Authorized Inspection Agency prior to issuance and implementation of the Quality System.

e) Certification

When electronic certification of documents is used, the Quality System shall include provisions describing the controls and safeguards that are employed to ensure the integrity of the certification.