

Date Distributed: June 11, 2010



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

**SUBGROUP
ON REPAIRS and ALTERATIONS
GENERAL**

AGENDA

*Meeting of July 20, 2010
Columbus, Ohio*

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 a.m.**
2. **Announcements**
3. **Adoption of the Agenda**
4. **Approval of Minutes of January 2010 meeting**
5. **Review of the Roster (Attachment 1)**
6. **Action Items (Attachment 2)**

NB08-0322 Part 3 3.2 SG on Repairs and Alterations General Add a new paragraph to 3.2 General Requirements for Repairs and Alterations to address change of service for a pressure vessel. These requirements should caution inspectors, owners, repair organizations and jurisdictional authorities of the inherent dangers involved when changing service. A new supplement should be added to address the specific requirements for repairs and alterations of pressure vessels that have been converted from one service to another. A task group representing all three parts of the NBIC has been formed under the leadership of Bob Wielgoszinski. Task group members from R & A are P. Edwards and B. Schulte. (See Attachment 2, pgs. 1-3)

July 2008

A task group was assigned.

January 2009

A progress report was given.

July 2009

There was no report provided at this meeting.

January 2010

A progress report was given.

July 2010

Mr. Edwards is expected to report.

NB10-0401 Part 3 1.3 a) SG on Repairs and Alterations General Alter the definition of Authorized Inspection Agency. (See Attachment 2, pgs. 4-5)

July 2010

Mr. Terry Parks is expected to report.

NB10-0701 Part 3 SG on R/A General Assure the ultimate objective of quality of work with sufficient documentation to show what was accomplished under the R stamp program. (See Attachment 2, pgs. 6-10)

January 2010

A task group of M. Webb and J. Larson was assigned.

July 2010

Mr. Webb is expected to report.

NB10-1601 Part 3 5.13.4.1 SG on Repairs and Alterations General Revise the current "R" Form at 5.13.4.1 and the referenced instruction guide to allow for abbreviation. (See Attachment 2, pgs. 11-15)

July 2010

Mr. Webb is expected to report.

NB10-1701 Part 3 3.2.1 b) SG on Repairs and Alterations General Address the welding of corrugated rolls. (See Attachment 2, pg. 16)

July 2010

Mr. Wielgoszinski is expected to report.

7. New Business

8. Future Meetings

January 2011, Austin, Texas

July 2011, Columbus, Ohio

9. Adjournment

Respectfully Submitted,

Jeanne Bock

Secretary

SG on R/A-General

Member	Title	ExpirDate	Interest Category
Bock, Jeanne	Secretary		
Boseo, Brian		1/31/2012	Manufacturer
Bramucci, Angelo		1/31/2013	Manufacturer
Edwards, Paul D.	Chairman	8/31/2012	NB Certificate Holders
Larson, James P.		8/31/2012	Auth Inspection Agencies
Morelock, Brian		1/31/2012	Users
Pulliam, Ron		10/31/2011	Manufacturer
Schulte, Bryan	Vice Chair	8/31/2012	Users
Webb, Michael		8/31/2012	Users

Total Members:8

ATTACHMENT 2

NB08-0322

Secretary, NBIC Committee
The National Board of Boiler and
Pressure Vessel Inspectors
1055 Crupper Avenue
Columbus, OH 43229

The following addition to the NBIC is proposed;

Add requirements to change the service of pressure vessels in Part 1, Installation, Part 2, Inspection, and Part 3 Repairs and Alterations.

Statement of Need

The Federal Railroad Administration has a proposal out on railcars carrying Poison Inhalation Hazard (PIH) that will require a number of existing tank cars to be retired early. There is a potential that some of these tanks will be recycled into stationary tanks for service other than what they were design for.

Additionally, this practice already occurs in some industries without any consideration for any damage mechanisms that made have been present in the initial service. The NBIC does not currently address these types of events.

Background Information

Part 3 - Add a new paragraph to 3.2 General Requirements for Repairs and Alterations to address change of service for a pressure vessel. These requirements should caution inspectors, owners, repair organizations and jurisdictional authorities of the inherent dangers involved when changing service. A new supplement should be added to address the specific requirements for repairs and alterations of pressure vessels that have been converted from one service to another.

NB08-0322 Part 3 3.2 General Requirements for Repairs and Alterations to address change of service for a pressure retaining item (PRI)

Proposal: Add a new paragraph 3.2.6 to address change of service for a PRI.

Scope:

This section provides requirements for PRIs that will be converted from one service to another. Changes in service can be successfully accomplished provided there is an understanding of the effect on the PRI.

Definition:

Change in Service: A change in the contents or the environment of a PRI that is different from the original design or previous service conditions.

Requirements:

1. Determine if the change in service is a repair or alteration per NBIC.
2. Evaluate the PRI for the new service requirements of pressure, temperature, flow rates, etc.
3. Review existing documentation for this PRI (i.e. vessel drawings, manufacturer's data reports, material test reports, pressure test, NDE, repairs, alterations, etc.).
4. Evaluate the PRI using NDE methods for establishing current thickness, corrosion rate, weld quality, etc.
5. A review shall be completed and documented by a competent individual with experience in pressure vessel design, alteration, repair, etc. This review shall be approved by the Owner/User or designated agent.
6. Verify the maximum allowable working pressure (MAWP), maximum allowable working external pressure (MAWEP), maximum allowable temperature (MAT), minimum design metal temperature (MDMT) for the new service.
7. Verify the PRI supports are adequate for the new service conditions. Verify all new PRI loads for the new service.
8. Compare specific gravity of new service medium with existing PRI design.
9. The PRI materials of construction shall be evaluated for compatibility of the new service.
10. Determine the corrosion effects of the new service conditions and establish remaining life of the PRI per NBIC.
11. Evaluate the PRI for fatigue service and thermal gradients.

12. Evaluate the new pressure and temperature relieving requirements for the new service conditions.
13. Verify that the proper nameplate(s) are attached per NBIC. Change in service could require additional information on the NBIC "R" nameplate.
14. Determine if jurisdictional rules have any effect on this change of service. Notify the jurisdiction as required.

Examples:

Put in example of repairs and alterations.

- If the PRI support is changed (i.e. from horizontal to vertical), the PRI should be evaluated for the new supports for new loadings such as hydrostatic loads, wind loads, seismic loading, nozzle loadings, etc.
- If the PRI was in hydrogen service, it shall be checked for hydrogen embrittlement prior to use in the new service.
- Addition of mechanical equipment such as agitators, instrumentation, spargers, etc shall be evaluated.

References:

B31.3 App F – Precautionary Considerations

API-510 8.2(c) Rerating

NFPA-58 para 5.2.8

OSHA Technical Manual, Sec 4, Ch 3. Pressure Vessel Guidelines

API RB 750 Process Safety Management

PCC-3 Risk Based Methods

API-579

I propose the following change to NBIC, Part 3, 1.3 a) and Parts 1, 2, & 3, Section 9, Glossary of Terms – Authorized Inspection Agency:

Part 3, 1.2 – INSPECTOR

a) Inspection and certification shall be made by an Inspector holding a valid commission issued by the National Board and employed by an ~~accredited Inservice~~ Authorized Inspection Agency (see 9.0, Glossary of Terms, for definition of AIA).

Authorized Inspection Agency

New Construction: An Authorized Inspection Agency ~~is one that is accredited by the National Board~~ meeting the qualification and ~~duties~~ definition of N B-360, Criteria for Acceptance of Authorized Inspection Agencies for New Construction.

Justification for Change

Currently most NB-360 AIAs perform the acceptance inspection and sign the R Form for repairs/alterations that have been made in accordance with the NBIC. I do not believe it was the intent to limit this activity to only Inservice Authorized Inspection Agencies. With the change to NB-263, *Rules for National Board Inservice and New Construction Commissioned Inspectors*, this revision to the NBIC will align the two.

The NBIC Glossary definition for New Construction, Authorized Inspection Agency is incorrect. The National Board does not accredit NB-360 Authorized Inspection Agencies. NB-360 AIAs are **accepted** by the National Board as entities that employ National Board Commissioned Inspectors to conduct third party inspections on pressure-retaining items registered with the National Board.

Background Information

Definition from NB-263 – Rules for National Board Inservice and New Construction Commissioned Inspectors:

Authorized Inspection Agency

New Construction: An Authorized Inspection Agency meeting the qualification and definition of NB-360, Criteria for Acceptance of Authorized Inspection Agencies for New Construction.

Inservice: An Authorized Inspection Agency is either:

(a) A jurisdictional authority as defined in the National Board Constitution; or

(b) An entity accredited in accordance with NB-369, Qualifications and Duties for Authorized Inspection Agencies (AIAs) Performing Inservice Inspection Activities and Qualifications for Inspectors of Boilers and Pressure Vessels.

Introduction from NB-360 – Criteria for Authorized Inspection Agencies (AIAs) Providing Inspection Services for ASME Code Items:

1.0 – Requirements for Authorized Inspection Agencies (AIAs) providing Inspection Services for ASME Code Items

1.1 Introduction

Authorized Inspection Agencies (AIAs) provide third party inspection services in which boilers, pressure vessels and other pressure retaining items are inspected during construction to verify their conformity with the code of construction. The requirements for the acceptance of Authorized Inspection Agencies are described in this document.

It is required that boilers, pressure vessels and other pressure retaining items registered with the National Board be subject to third party inspection by National Board commissioned inspectors who are employed by Authorized Inspection Agencies that are accepted by the National Board.

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Subject: Record Retention

NB-Item number: NB10-0701

Explanation of assignment needed:	Currently the NBIC has no requirements for record retention but is implied in several areas (FFSA, welder continuity, and the retention of R-forms not registered @ the N-BD.) Without some scheme of record retention by Code, the prudent retention plan is subject only to the "interpretation" of the National Board review-team, and the AIA accepting the stamp holder's quality system. Without directives or a scheme of record retention within the body of the Code, the necessity of records and their retention will be ambiguous and not necessarily mandatory.
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Assigned to: M. Webb, J. Larson

Background:	NB-item NB10-0701 was introduced to R/A Subgroup-General and was initially recognized as mirroring some of the work progressing on NB-item NB08-0304; more specifically the instruction guide for completing R-Forms and the need for required detail when summarizing a description of work. After hearing the progress report on item NB08-0304 during the January 2010 R/A Subgroup-Specific meeting, the scope of the item NB10-0701 as submitted by Mr. Gary Scribner was more specifically targeted to address only record retention.
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Proposal:	Proposed -- This 5.14 is all new text	Rational
<p>Introduce Part 3, Section 5.14 : Records and Record Retention</p> <p>12. State exact scope of work, and attach additional data, sketch, Form R-4, etc. as necessary. If additional data is attached, so state.</p>	<p>5.14 Records - General</p> <p>a) Records can represent any information used to further substantiate the statements attesting to the scope of work completed to a pressure-retaining item (PRI), and documented on a Form "R" report.</p> <p>b) Records are not limited to depicting or calculating an acceptable design, NDE, PWHT-charts, a WPS used, welder process continuity, drawings, sketches, or photographs.</p> <p>c) The organization performing repairs or alterations may register Form "R" Reports with the National Board and any associated records substantiating the statements used to describe the scope of work on a Form "R" Report.</p> <p>5.14.1 Record Retention</p> <p>a) The organization performing repairs and alterations shall retain a copy of the completed Form "R" Report on file, and all records substantiating the summary of work described @ 5.13.4.1, item 12.</p>	<p>New Section 5.14 Records & Record Retention is a natural fit as it follows the continuity of Section 5 (preparation, registration and certifying of forms, stamping).</p> <p>Record Retention</p> <p>a) '09-addendum of ASME Section VIII, Div. 1 @ UG-120, indicates the Manufacturer is to keep the Manufacturer's Data Report for a minimum of 3 years; a <u>Certificate of Compliance</u> too. Earlier editions were 5-years. The retention of "other records" is not described.</p> <p>b) The record retention period as described by API-579 is applicable to API-510 and API-570 which describes, "permanent records shall be maintained throughout the service life of each equipment item:..."</p> <p>• ASME Section V: "... manufacturer, fabricator, or installer shall be responsible for all required records / documentation.</p>

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	<p>for a minimum of five years. When the method of repair described at 3.3.4.8 is used, the record retention period shall be as described in b).</p> <p>b) When the method of repair described at 3.3.4.8 is used, the record retention period shall be for the duration described on the Fitness For Service Assessment (FFSA) Form required by the repair method and as described in NBIC Part 2, 4.4.</p> <ol style="list-style-type: none"> The "R" Certificate Holder should be aware that when used, some of the referenced codes and standards identified in the NBIC Part 2, Section 1.3, describe requirements for permanent record retention throughout the service life of each equipment item. When the "R" Certificate Holder is not the owner or user of the equipment, the record retention period can be limited to the FFSA results described on line 8 of the Report of Fitness For Service Assessment Form (NB-403). <p>c) Document and record retention as identified in a) and b) shall apply to the organizations on the applicable distribution described in NBIC Part 3, Section 5.3 and 5.4.</p> <p>d) The minimum retention period of welder continuity records within the Certificate Holder's control system shall be established at the time of the applicants initial certificate review and demonstrated at each triennial review required thereafter to maintain the "R" Certificate Holder's Certificate of Authorization.</p>	<p>As described in 3.3.4.8 a): "... The specified period of time the defect can remain in service after a weld repair shall be based on no measurable defect growth..." (This implies comparison records are available). Without record retention, risk based inspection frequencies may be undetermined.</p> <p>Also, 3.3.4.8 c) 2) references NBIC Part 2, @4.4. In this section, FFSA per API-579 is introduced which can be used in conjunction with other API-codes (API-510 & API-570) requiring, "... permanent and progressive records to be maintained throughout the service life of each equipment item..."</p> <p>By adding the Section 5.14, the NBIC would have a similar continuity as other referenced industry codes and standards.</p> <p>QUESTION: Should a distinction be made between a document (certified-Form "R" Report) and the records substantiating the stated scope of repair or alteration on the document? If a distinction can not be made between a FORM "R" report representing a document or a record, then should all "R" forms and corroborating records be retained for the 5-years proposed? Should there be a difference in the retention period for a document Vs. a record?</p>
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If new Section 5.14 is brought into the code, the following Sections might also be considered for change:

- Section 5.2
- Section 5.5 and 5.5.2 b)
- Section 2.2.6
- Adding section 2.2.6.1

Existing Text:	Proposed Text	Rational
<p>5.2 DOCUMENTATION</p> <p>a) Repairs that have been performed in accordance with the NBIC shall be documented on Form R-1, <i>Report of Repair</i>, as shown in this section. Form R-4, <i>Report</i></p>	<p>5.2 DOCUMENTATION</p> <p>a) Repairs that have been performed in accordance with the NBIC shall be documented on a Form R-1, <i>Report of Repair</i>, as shown in this section. A Form R-4, <i>Report Supplementary Sheet</i>, shall</p>	

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<p><i>Supplementary Sheet</i>, shall be used to record additional data when space is insufficient on Form R-1.</p> <p>b) Alterations performed in accordance with the NBIC shall be documented on Form R-2, Report of Alteration, as shown in this section. Form R-4, Supplementary Sheet, shall be used to record additional data when space is insufficient on form R-2.</p> <p style="text-align: center;">Add here @ 5.2 (c) →</p> <p style="text-align: center;">5.2 (c) was relocated from 5.5 (c)</p>	<p>b) Alterations performed in accordance with the NBIC shall be documented on <u>a</u> Form R-2, Report of Alteration, as shown in this section. <u>A</u> Form R-4, Supplementary Sheet, shall be used to document additional data when the space <u>provided</u> on Form R-2 is <u>not sufficient</u>.</p> <p><u>c)</u> For those "R" Forms not registered with the National Board, The organization performing repairs and alterations shall retain a copy of the completed Form "R" Report Form on file and all records substantiating the summary of work as described @ 5.2.1 (b) for a minimum of five years, or as otherwise described when the repair method at 3.3.4.8 is used.</p>	<p>This paragraph "c" if accepted, would make no distinction of record retention. All "R" Certificate Holders would be required to retain the Form "R" Reports and corroborating records for 5-years</p> <p>By requiring supporting records to be kept along with the "R" Form, any questions arising from the owner / user, Inservice Inspector or jurisdiction due to a lack of detail on the "R" Form within that described time line, might be answered.</p>
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Existing Text:	Proposed Text	Rational
<p>5.5 REGISTRATION OF "R" FORMS -GENERAL</p> <p>a) Organizations performing repairs or alterations under the "R" stamp program may register such repairs or alterations with the National Board.</p> <p>b) It should be noted that some Jurisdictions may require registration or repairs and alterations with the National Board.</p> <p>c) For those "R" Forms not registered with the National Board, the organization performing repair or alterations shall retain a copy of the "R" Form on file for a minimum period of five years.</p>	<p>5.5 REGISTRATION OF "R" FORMS -GENERAL</p> <p>a) "R" Certificate Holders, Organizations performing repairs or alterations under the stamp program may register such repairs or alterations with the National Board.</p> <p>b) The "R" Certificate Holder should be aware that some Jurisdictions may require registration of repairs and alterations with the National Board.</p> <p>c) For those "R" Forms not registered with the National Board, the org <u>delete (c) and re-locate to 5.2 (c)</u> it retain a copy of the "R" Form on file for a minimum period of five years.</p>	<p>By requiring supporting records to be kept along with the "R" Form, any questions arising from the owner / user due to a lack of detail on the "R" Form within that described 5-yr time line, might be answered.</p> <p>The need for record retention is recognized in the '07 edition of ASME B31.1. New Section VII now describes record retention for the life of the pipe system.</p> <p>As described in 3.3.4.8 a) "... The specified period of time the defect can remain in service after a weld repair shall be based on no measurable defect growth..." (This implies comparison records are available). Without record retention, risk based inspection frequencies may be undermined.</p> <p>Also, 3.3.4.8 c) 2) references NBIC Part 2, @4.4. In this section, FFSAs per API-579 is introduced which can be used in conjunction with other API-codes (API-510 & API-570) requiring, "... permanent and progressive records to be maintained throughout the service life of each equipment item..."</p>

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Existing Text:	Proposed Text	Rational
<p>5.5.2 REGISTRATION FOR ALTERATIONS</p> <p>b) If the item was not registered with the National Board, one original Form R-2, together with attachments, may be registered with the National Board or retained as required by 5.5.</p>	<p>5.5.2 REGISTRATION FOR ALTERATIONS</p> <p>b) If the item was not registered with the National Board, one original Form R-2, together with attachments, may be registered with the National Board or retained as required by <u>5.14.1 a).</u></p>	<p>By requiring supporting records to be kept along with the "R" Form, any questions arising from the owner / user due to a lack of detail on the "R" Form within that described 5-yr time line, might be answered.</p>

Existing Text:	Proposed Text	Rational
<p>2.2.6 WELDER'S CONTINUITY</p> <p>The performance qualification of a welder or welding operator shall be affected when one of the following conditions occur:</p> <p>a) When the welder or welding operator has not welded using a specific process during a period of six months or more, their qualifications for that process shall expire. The "R" Certificate Holder shall maintain a welding continuity record and shall make the record available to the Inspector. The method of recording welding continuity and the record retention period shall be described in the "R" Certificate Holder's Quality System Manual.</p> <p>b) NO CHANGE</p>	<p>2.2.6 WELDER'S CONTINUITY</p> <p>The performance qualification of a welder or welding operator shall be affected when one of the following conditions occur:</p> <p>a) When the welder or welding operator has not welded using a specific process during a period of six months or more, their qualifications for that process shall expire. The "R" Certificate Holder shall maintain a welding continuity record and shall make the record available to the Inspector. The method of recording welding continuity and the record retention period shall be described in the "R" Certificate Holder's Quality System Manual.</p> <p>b) NO CHANGE</p> <p><u>2.2.6.1 WELDER CONTINUITY RECORDS</u></p> <p>a) The "R" Certificate Holder shall maintain a welding continuity record-system and shall make the records available to the Inspector <u>upon request.</u></p> <p>b) The method of recording welding continuity and the record retention period, <u>meeting the minimum requirements of 5.14</u>, shall be described in the "R" Certificate Holder's Quality System Manual.</p>	<p>The portion of the text relative to "record" was merely relocated from 2.2.6 to the <u>new</u> proposed 2.2.6.1</p>

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Definitions developed to support the proposed revisions:

Existing Text:

Proposed Text

Rational

Existing Text:	Proposed Text	Rational
<p>Definition: "Record"</p>	<p>Any preserved information used to further substantiate, illustrate, depict, or qualify the summary of work described by a representative of the repair organization completing the work summary on a Form "R" report. Records as described are not limited to photographs, drawings, reports, calculations, or charts, supporting or limiting the area of the work completed.</p>	
<p>Definition: "Documentation"</p>	<p>A gathering or general assembly of reported information qualifying or supporting the statements attesting to the steps, evaluations, and methods used in completing a repair or alteration meeting the requirements of the NBIC.</p>	<p>The Code already recognizes "documentation" at 5.2, but does not identify what it is or what should be considered when describing documentation. The acceptance of NB08-0304 will get us closer.</p>
<p>Definition: "Document"</p>	<p>A signature-culminating summary of completed activities used to repair or alter a pressure retaining item (PRI), reported on a Form "R" Report, to the requirements of the National Board Inspection Code.</p>	<p>Alternative definition: The combined testimony and signature of an authorized representative of the repair or altering organization, and the Inspector accepting the work and accuracy of the work described on a Form "R" Report meeting the requirements of the NBIC.</p>
<p>Definition: "Report"</p>	<p>A formal written account, unlimited in detail of fact based information supporting a conclusion.</p>	

Other committee considerations:

- **Distinguish a record from a document-**
By making a subtle distinction between a document and a record, the retention schedule could be different to mitigate storage space issues, and registration / retrieval costs. Example: some Jurisdictions may require the Form "R" Report to be registered with the National Board but not the corroborating records.
- **What is motivating the need for records or a record retention schedule?** Records being reviewed during triennial reviews, Fitness for Service evaluations and establishing inspection frequencies, long-term maintenance planning such as Flow-assisted erosion-corrosion inspection / evaluations.
- **Should there be a distinction between how some records are used-** Welder-process continuity records may be limited to a 3-yr retention period. Equipment associated records representing repairs, alterations, and fitness for service evaluations used to determine future inspection frequencies shall minimally retained for 5-yrs. Is it too cumbersome to have different rules for different records?

NR10-1601



Revision to Code Rules

May 12, 2010

Secretary, NBIC Committee
The National Board of Boiler and
Pressure Vessel Inspectors
1055 Crupper Avenue
Columbus, Ohio

Subject: The use of an abbreviated company name when completing a Form "R" Report

Statement of need:

With the understanding that the named repair organization shown on line-1 of a Form "R" Report is to mirror the named company on the "Certificate of Authorization", the exact name appearing on the "Certificate of Authorization" may not fit in the limited space characterized by the "R" forms shown at 5.13.1 through 5.13.4, at the line referenced in the instruction guide at 5.13.4.1, as instruction item-20.

Recognizing the National Board's rightful conviction to retain the information format (See interpretation 95-40) and relative location of the information profiled on the Form "R"-Report forms shown in Part 3, Section 5.13, the use of a recognized abbreviation may aid in retaining the information profile and legible completion of the form without compromising the integrity of the information being provided. Currently the Code has no rules to "permit or prohibit" the use of an abbreviated company name when completing a Form "R" Report. Recognize too, that the item in focus does not represent the extended description of work on a Form "R"-4, but only the limited space provided within the "Certificate of Compliance"-portion of the form, or another area where the National Board-forms may have a space-limited format.

With this in mind, a proposal is made to revise the current instruction guide at instruction item-20 as shown:

<u>Existing Text</u> in '09-addenda 5.13.4.1 GUIDE FOR COMPLETING NATIONAL BOARD "R" REPORTS	<u>Proposed Change</u>
20. Name of the "R" Certificate organization that performed the identified work.	20. <u>Document</u> the name of the "R" Certificate Holder that performed the <u>described</u> work, <u>using the full name as shown on the Certificate of Authorization or an abbreviation acceptable to the National Board.</u>

Additionally,

If the proposed item is accepted, an administrative suggestion is offered to the National Board to revise:

- The form NB-12, page 1, line 5 to reflect, "Abbreviation to be used for stamping or as allowed for completing a Form "R" Report".
- Revise the corresponding instruction guide on form NB-12, page-3, item 5 to reflect this action.
- Revise NB-form NB-397 titled, "National Board "R" or "NR" Certificate of Authorization Revision Request" to reflect the applicant's use of an abbreviated name if needed.

Submitted by:

Mike Webb
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Background information:

This proposed revision to the Code Rules is a parallel item to National Board item NB08-0304. The distinction between the two items proposing a revision at instruction item-20 is, "the accepted use of an abbreviated company name when completing a Form "R" Report".

The National Board-staff has indicated that they do not currently have rules for the *permitted or prohibited* use of an "R"-Certificate Holder's abbreviated name in the limited space provided for the circled item-20, depicted at 5.13.1 through 5.13.4, or as described per the instruction guide at 5.13.4.1, when completing any of the Form "R" reports.

Within the NBIC, the use of an acceptable abbreviation is clearly allowed for nameplate stamping described at Part 3, Section 5.7.5 d):

"The certificate holder shall use its full name as shown on the Certificate of Authorization or an abbreviation acceptable to the National Board".

Using the form NB-12, and completing line 5 on page 1, The National Board has a vehicle in place for accepting an abbreviated company name at the time of certificate application or renewal. With an acceptable abbreviation on record as currently indicated @ 5.7.5 d), the consistent use of the accepted abbreviation would be secured and limited to stamping or for use in completing a Form "R" Report if needed per the instruction item-20.

Seeing that the profiled nameplate figures shown at 5.7.5 a-c do not require any other identifying mark or company logo other than the registered "R" Certificate of Authorization-number, in conjunction with the registered identity of the Certificate Holder (which may be minimally abbreviated as "ABC"), the Code-community recognizes and accepts the limited nameplate stamping by precedence, as an unmistakable system of establishing repair organization certainty.

This certainty is presumed to be recognized by:

- The original application (NB-12, pg 1, line 5) on file at the National Board that includes the requested abbreviation accepted by the National Board and,
- The unique and registered "Certificate of Authorization"-number displayed when stamping is required.

As a comparison, referencing the instructions at 5.13.4.1 for completing a Form "R" Report, three individual sources of information affirms the repair organization's identity:

- Instruction item-1: The organization completing the Form "R" Report is required to identify the exact name and address of the "R" Certificate Holder performing the work as it appears on the "Certificate of Authorization".
- Instruction item-17: The Certificate Holder's "Certificate of Authorization"-number is to be documented.
- Instruction item-20: The name of the "R" Certificate Holder is again to be documented enlisting an identity on record with the National Board.

A list of reviewed sections indicating no rules or guidance prohibiting or permitting the use of an abbreviated company name on a Form "R" report:

1. Part 3, Section 1.6- Accreditation of "R" repair Organizations
2. Part 3, Section 5.2- Documentation
3. Part 3, Section 5.2.1 and 5.2.2- Preparation of Form R-1 and R-2, respectively
4. Part 3, Section 5.13.4.1- guide for completing National Board Form "R" Reports
5. Part 3, Section 5.7.5. d) Requirements **for stamping**
 - "...an abbreviation acceptable to the National Board", is identified.
6. National Board document NB-12 – Application for the National Board "R" Certificate of Authorization.
 - NB-12, page 1- Permits the use of an abbreviation for stamping...but does not prohibit an abbreviation to be used in the certificate area of the Form "R" report.
 - NB-12, page 3- The instruction guide for completing the application profile on NB-12, pg 1 only identifies the use of an abbreviation for stamping, item 5.

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(12)

GUIDE FOR COMPLETING THE APPLICATION FOR THE NATIONAL BOARD "R" CERTIFICATE OF AUTHORIZATION

[1]	Check this box if this is an application for a renewal of an existing Certificate of Authorization.
[2]	Check this box if this is an application for a new Certificate of Authorization.
[3]	Check this box if this is an application for a renewal of an existing Certificate of Authorization.
[4]	Print the name of the applicant exactly as it will appear on the Certificate of Authorization. This name shall be on the cover of the Quality Control manual. Punctuation, spacing and capitalization of the name are important.
[5]	Supply the appropriate information required for marking or stamping as required by the NBIC. For example, Access Building Company may use (ABC) for their name for the stamping.
[6], [7], [8]	Are you having a reviewer for an "R" Certificate only or will you also have a joint reviewer for an ASME Certificate? Check box [7] or [8].
[9]	Check this box if the applicant's program only covers repairs as defined in the NBIC.
[10]	Check this box if the applicant will be performing work only at the address on the Certificate. (see SHOP in NBIC Part 3, Section 9)
[11]	Check this box if the applicant will be performing work on metallic pressure retaining items.
[12]	Check this box if the applicant will perform code calculations for re-rating or alterations as defined in the NBIC and will not perform physical work to the pressure retaining item except for the "R" stamping or NPS.
[13]	Check this box if the applicant will perform alterations only as defined in the NBIC and will perform physical work to the pressure retaining item.
[14]	Check this box if the applicant will perform code calculations or physical work which is controlled from the address listed on the Certificate of Authorization.
[15]	Check this box if the applicant will perform work on non-metallic pressure retaining items such as FRP or graphite.
[16]	Name of your Authorized Inspection Agency or Owner-User organization.
[17]	When revising your current certificate, an Authorized Inspection Agency representative shall acknowledge acceptance of this revision by signing this line or providing a letter of acceptance to the Accreditation Department.
[18]	Supply address lines of the contract with the Authorized Inspection Agency, as applicable.
[19]	Signature of the authorized representative of the applicant
[20]	Print the name of the authorized representative that signed line 19
[21]	Physical address listed on the Certificate of Authorization (SHOP)
[22]	City, state, province, territory, country, postal code of physical address
[23]	Mailing address (different from line 21 and 22)
[24]	City, state, province, territory, country, postal code of mailing address
[25]	Print the name of the company's primary contact to the National Board
[26]	Telephone number of the applicant organization
[27]	Facsimile machine number of the applicant organization
[28]	Email address of the applicant organization
[29]	Agreement with the address if applicable
[30-a]	Print the city of the recommended airport for the Team Leader to arrive
[30-b]	Print the name of the airport or airport code
[31-a]	What transportation from the airport to the hotel and the shop do you recommend?
[31-b]	Provide any special instructions if required.
[32]	Provide complete contact information for the first choice hotel
[33]	Provide complete contact information for the second choice hotel
[34]	Check the box of the days of the week that your company is open for business (for a Reviewer).

NS-987 1205



THE NATIONAL BOARD
OF BOILER AND
PRESSURE VESSEL
INSPECTORS

National Board "R" or "NR" Certificate of Authorization Revision Request

Request Date: _____

Certificate Number: _____

Certificate Expiration Date: _____

Change from: _____

Change to: _____

Signature of Authorized Company Representative: _____ Date: _____

ID # (Print on your last invoice): _____

General Information:

- Before a certificate revision will be granted the National Board must have a completed application and appropriate fee for certificate revision.
- Your Authorized Inspection Agency should accept this change in your QC manual and note acceptance on line 17 of the application or send a separate letter accepting this revision to the National Board on AIA letterhead.
- The cost for a revision is \$50 USD.
- You may choose to submit your own request letter. Please include the above information in your letter.
- Mail, fax, or email your request to:

Accreditation Department
1055 Chippew Ave.
Columbus, OH 43229-1183
614.431.3334 - phone
614.847.1828 - fax
icando@nationalboard.org

Note: You should continue using the company name that appears on your current Certificate of Authorization when stamping repaired/retired items and completing R-forms until the revised certificate is issued.

NS-987 1205

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5.13.1 FORM R-1, REPORT OF REPAIR

FORM R-1 REPORT OF REPAIR
In accordance with provisions of the National Board Inspection Code

1. Work performed by Public Services Company of Colorado (PSCO), an Xcel Energy company N/A
(Form 3 No.)

2. Owner Public Services Company of Colorado (PSCO), an Xcel Energy company P/S No. (4/1/96 ed.)

3. Location of installation 4651 Table Mountain Drive, Golden, CO 80443

4. Unit identification _____ Name of original manufacturer _____

5. Identifying no.: _____ (make, pressure vessel) _____ (serial no.) _____ (date built)

6. NBIC Edition / Address: _____ (edition) _____ (address)

Original Code of Construction for Item: _____ (code / number / division) _____ (plate / radius)

7. Repair Type: Welded Graphite Pressure Equipment FRP Pressure Equipment

8. Description of work: _____ (see supplement sheet, Form R-1, if necessary)

9. Replacement Parts. Attached are Manufacturer's Partial Data Reports or Form R-3's properly completed for the following items of this report:
Pressure Tank, if applied _____ per MAWP _____ psi

10. Remarks: _____

1. _____ certify that to the best of my knowledge and belief the statements in this report are correct and that all materials, connections, and workmanship on this repair conforms to the National Board Inspection Code, National Board "C" Certificate of Authorization No. _____ expires on December 4, 2011.
Date _____ Signed _____ (printed name and jurisdiction No.)

CERTIFICATE OF COMPLIANCE

1. Michael Walsh holding a valid Commission issued by the National Board of Boiler and Pressure Vessel Inspectors and certificate of competency issued by the jurisdiction of State of Colorado and employed by Xcel Energy Services, Inc. and seen that to the best of my knowledge and belief I have inspected the work described in this report on _____ and seen that to the best of my knowledge and belief this work complies with the applicable requirements of the National Board Inspection Code. By signing this certificate, neither the undersigned nor any employee makes any warranty, expressed or implied, concerning the work described in this report. Furthermore, neither the undersigned nor any employee shall be liable in any manner for any personal injury, property damage or loss of any kind arising from or connected with this inspection.
Date _____ Signed _____ Commission _____ (National Board jurisdiction No.)

FORM R-1 REPORT OF REPAIR
In accordance with provisions of the National Board Inspection Code

1. Work performed by Public Services Company of Colorado (PSCO), an Xcel Energy company N/A
(Form 3 No.)

2. Owner Public Services Company of Colorado (PSCO), an Xcel Energy company P/S No. (4/1/96 ed.)

3. Location of installation 4651 Table Mountain Drive, Golden, CO 80443

4. Unit identification _____ Name of original manufacturer _____

5. Identifying no.: _____ (make, pressure vessel) _____ (serial no.) _____ (date built)

6. NBIC Edition / Address: _____ (edition) _____ (address)

Original Code of Construction for Item: _____ (code / number / division) _____ (plate / radius)

7. Repair Type: Welded Graphite Pressure Equipment FRP Pressure Equipment

8. Description of work: _____ (see supplement sheet, Form R-1, if necessary)

9. Replacement Parts. Attached are Manufacturer's Partial Data Reports or Form R-3's properly completed for the following items of this report:
Pressure Tank, if applied _____ per MAWP _____ psi

10. Remarks: _____

1. _____ certify that to the best of my knowledge and belief the statements in this report are correct and that all materials, connections, and workmanship on this repair conforms to the National Board Inspection Code, National Board "C" Certificate of Authorization No. _____ expires on December 4, 2011.
Date _____ Signed _____ (printed name and jurisdiction No.)

CERTIFICATE OF COMPLIANCE

1. Michael Walsh holding a valid Commission issued by the National Board of Boiler and Pressure Vessel Inspectors and certificate of competency issued by the jurisdiction of State of Colorado and employed by Xcel Energy Services, Inc. and seen that to the best of my knowledge and belief I have inspected the work described in this report on _____ and seen that to the best of my knowledge and belief this work complies with the applicable requirements of the National Board Inspection Code. By signing this certificate, neither the undersigned nor any employee makes any warranty, expressed or implied, concerning the work described in this report. Furthermore, neither the undersigned nor any employee shall be liable in any manner for any personal injury, property damage or loss of any kind arising from or connected with this inspection.
Date _____ Signed _____ Commission _____ (National Board jurisdiction No.)

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15

NBIC - 1701

Welding of corrugating rolls

Robert_Wielgoszinski

to:

RHough

05/18/2010 09:47 AM

Cc:

tparks, ggalanes

Show Details

Robin, would you please open an item at the NBIC for the repair welding of corrugating rolls. In the cardboard and paper industry it is common to have drum rolls made of SA-649 material. And it is frequent that in the manufacture of cardboard these rolls are refurbished, which includes welding. The refurbishment method is roughly described as machining the used rolls to a smooth surface, overlay welding the rolls with a hard face, and then machining the corrugation grooves in the hard faced surface. There is sometimes preheat and post weld heat treatment involved, but not always. Other repair work is performed, but generally not germane to the NBIC.

When someone wants to refurbish the rolls in accordance with the NBIC, they are directed back to the ASME Code, which has very specific rules for the manufacturing of these forged rolls. Any welding or rework is to be done in accordance with the material specification, SA-649. The material spec. does not have very much guidance on how to handle welding.

This is because it is a specification for new material. And new material Manufacturers seldom like to weld on new material. Also, this forged material has a high carbon content and is not very ductile, and therefore susceptible to cracking. Hence the reason the MM's don't want it welded. But there are numerous companies, all around the world, that will refurbish the rolls to some degree. And reportedly with excellent results. They have been doing this for many years.

The NBIC allows for welding on corrugating rolls (these rolls) in Part 3, 3.2.1b), but provides no guidance of the best practices in doing so. With no guidance anyone could weld any roll, with any welding process, and with no heat treatment. This makes for a dangerous environment. It would behoove the industry, and general public, if there was some rules established to govern this practice.

We are soliciting some of the repair firms that specialize in refurbishing corrugating rolls for their input and potential participation in this item. But in the mean time, please open an item on this. And I would be happy to participate as a task group member.

Regards,

Robert V. Wielgoszinski

Principal Code Consultant

Hartford Steam Boiler of Connecticut

One State Street

Hartford, CT 06141-0299

800-472-1866 x5064

direct dial 860-722-5064

fax 860-722-5705

www.hsbglobalstandards.com

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(1b)