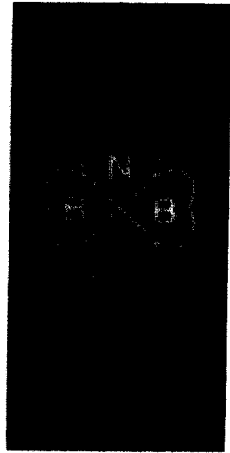


Date Distributed: June 11, 2010



THE
NATIONAL
BOARD
OF BOILER AND
PRESSURE VESSEL
INSPECTORS

SUBCOMMITTEE REPAIRS and ALTERATIONS

AGENDA

*Meeting of July 21, 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

Mr. Terry Parks will review the procedures of the National Board Inspection Code Committee

3. Adoption of the Agenda

4. Approval of Minutes of January 2010

5. Review of the Roster (Attachment 1)

Mr. Stuart Cameron would like to join the Subgroups on R/A Specific and General. Please view his resume and letter of support. A vote will be taken.

Ms. Linda Williamson would like to join the Subgroup on R/A General. Please view her attached resume and letter of support. A vote will be taken.

Mr. Edward Ortman would like to join the Subgroups on R/A General and Specific. Please view her attached resume and letter of support. A vote will be taken.

Mr. Walt Sperko would like to join the Subgroups on R/A General and Specific. Please view his resume. A vote will be taken.

6. Interpretations

There are no interpretations assigned to this Subcommittee.

7. Public Review Comments for 2011 Edition Cycle A

There are no public review comments assigned to this Subcommittee.

8. Action Items (Attachment 2)

NB08-0322 Part 3 3.2 SG R/A 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, pg. 1-3)

July 2008

A task group was assigned.

January 2009

A progress report was given.

July 2009

A progress report was given.

January 2010

A progress report was given.

July 2010

Mr. Wielgoszinski is expected to report.

NB09-1202 Part 3 S2 SG on Historical Boilers Review Part 3 supplement 2 to see what needs to be added or expanded upon. (No Attachment)

July 2010

Mr. Reetz is expected to report.

NB10-0101 Part 3 5.9.6 SG on R&A Specific Change 5.10 to facilitate information flow. Task group of B. Boseo (Chair), J. Given and J. Sekely has been assigned. (Attachment 2, pgs. 4-17)

January 2010

A progress report was given.

July 2010

Mr. Boseo is expected to report.

NB10-0102 Part 3 S1.2.10 SG on Locomotives Clarify requirements for repairs and alterations to Boiler Barrel unstayed areas. (Attachment 2, pg. 18)

January 2010

Mr. Reetz provided a progress report.

July 2010

Mr. Reetz is expected to report.

NB10-0103 Part 3 Part 3 S2.13.9.2 SG on Historical Resolve conflict of text and figure. S2.13.9.2. (No Attachment)

January 2010

Mr. Reetz gave a progress report.

July 2010

Mr. Reetz is expected to report.

NB10-0104 Part 3 S2.13.12.3 SG on Historical Should the reference in a) be to S2.13.11.2 or what is written. (No Attachment)

January 2010

Mr. Reetz gave a progress report.

July 2010

Mr. Reetz is expected to report.

NB10-0105 Part 3 S2.13.12.2 SG on Historical Remove a) from paragraph and revise wording so both paragraphs are clear. Clarify rules for Welded Flush Patches in Tubesheets. (No Attachment)

January 2010

Mr. Reetz gave a progress report.

July 2010

Mr. Reetz is expected to report.

NB10-0106 Part 3.S4.16.3.a) SG on FRP Change Manufacturer's Design report to Fabricator's Design Report. (Attachment 2, pgs. 19-21)

January 2010

No progress at last meeting.

July 2010

A report is expected.

NB10-0107 Part 3 S4.18.1 b) SG on FRP Revise paragraph to include alteration as well as repair. (Attachment 2, pgs. 19 - 21)

January 2010

No progress at this meeting.

July 2010

A report is expected.

NB10-0108 Part 3 S5.4 d) SG on Repairs and Alterations Specific Clarify documentation requirements for Yankee Dryers. Task group of J. Given has been assigned.(No Attachment)

January 2010

A progress report was given.

July 2010

Mr. Given is expected to report.

NB10-0109 Part 3 S6.17 TG on DOT Add the words alteration and modification to the first sentence. The sentence should read, "The following requirements shall apply to all repairs, alterations and modifications to pressure retaining items. (No Attachment)

January 2010

No action taken.

July 2010

A report is expected.

NB10-0110 Part 3 S6.19.1 TG on DOT This information should be combined with S6.15.1 since they are talking about the same information. Has TR-1 and TR-2 been developed? (No Attachment)

January 2010

No action taken.

July 2010

A report is expected.

NB10-0302 Part 3 S3.2 SG on FRP The current text permits the repair firm to make repairs from non ASME Code material. The proposed revision requires new parts to be made from Code material. (Attachment 2, pgs. 22-23)

January 2010

The SC made some suggestions to the proposal from the SG on FRP. The SG approved the changes.

July 2010

Mr. Galanes is expected to report.

NB10-0401 Part 3 1.3 a) SG R/A General Alter the definition of Authorized Inspection Agency. (See Attachment 2, pgs.24-25)

July 2010

Mr. Parks is expected to report.

NB10-0502 Part 3 S1.1 SG on Locomotive Boilers Add wording to the general requirements section of Part 3 Supplement 1: "This part applies to all boilers attached to steam locomotives operating on track gaged at 24" or greater, and all such boilers shall have inspections and repairs performed in accordance with the inspection and repair procedures called out in CFR Part 230." (See Attachment 2, pg. 26)

July 2010

Mr. Reetz 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. Review of the Subcommittee letter ballot comments and negatives. (Attachment 2. pgs. 27-31)

January 2010

After discussion it was decided to keep this item open to address record retention. A progress report was given.

July 2010

Mr. Webb is expected to report.

NB10-0802 Part 3 SG R/A Specific Proposed new requirements for liquid pressure testing of low toughness steels. (See Attachment 2, pgs. 32-33)

July 2010

Mr. Galanes is expected to report.

NB10-1001 Part 3 S2.13.14.3 SG on Historical Boilers Add figure and reference for flush patch for fusible plug. (No Attachment)

July 2010

A report is expected.

NB10-1004 Part3 S2 Fig. S2.13.13.1 SG on Historical Boilers Figure and title are incorrect. Figure should show caulking of seam and rivet heads. The title should reflect caulking of seam and rivet heads also. (No Attachment)

July 2010

A report is expected.

NB10-1501 Part 3 2.5.2 b) SG R/A Specific Add wording and figure to this section to address PWHT. (See Attachment 2, pgs.34 -36)

July 2010

Mr. Ferrell is expected to report.

NB10-1601 Part 3 5.13.4.1 SG on R/A Specific Revise the current “R” Form at 5.13.4.1 and the referenced instruction guide to allow for abbreviation. (See Attachment 2, pgs. 37 – 41)

July 2010

Mr. Webb is expected to report.

NB10-1701 Part 3 3.2.1 b) SG on R/A General Address the welding of corrugated rolls. (See Attachment 2, pg. 42)

July 2010

Mr. Wielgoszinski is expected to report.

9. New Business

NB10-0403 Part 3 3.2.6 SC on Repairs and Alterations Add API 510 Pressure Vessel Inspection Code to Part 3, 3.2.6 Reference to Other Codes and Standards. (See Attachment 2, pg. 43)

10. Future Meetings

January 2011, Austin, Texas
July 2012, Columbus, Ohio

11. Adjournment

Respectfully Submitted,

Jeanne Bock
Secretary
:rh

H:\ROBIN-Active Documents\NBIC Secretarial Documents\Committees\SC on Repairs and Alterations\Agenda\Agenda RA 0710.doc

SC on Repairs and Alteration

Member	Title	ExpirDate	Interest Category
Bock, Jeanne	Secretary		
Edwards, Paul D.		8/31/2012	NB Certificate Holders
Galanes, PE, George W.	Chairman	8/31/2012	Users
Given, Jack		8/31/2012	Jurisdictional Authorities
Jones, Wayne		1/31/2012	Auth Inpection Agencies
Larson, James P.		8/31/2012	Auth Inpection Agencies
Pavlovicz, Frank		8/31/2012	Manufacturer
Pillow, James T.	Vice Chair	7/31/2010	General Interest
Schulte, Bryan		8/31/2012	Users
Sekely, James		8/31/2012	General Interest
Webb, Michael		8/31/2012	Users
<u>Total Members:</u>		<u>10</u>	



Doosan Babcock Energy

Porterfield Road,
Renfrew, PA4 8DJ, United Kingdom
T +44 (0)141 886 4141
F +44 (0)141 885 3338

Mr David Douin
Executive Director
The National Board of Boiler and Pressure vessel Directors
1055 Crupper Avenue
Columbus, OH 4322901183

25 January 2010

Subject : Support for participation of S W Cameron on NBIC Committees

Dear Mr Douin,

Please accept this letter as Doosan Babcock's commitment to provide the necessary support for Stuart Cameron to participate in the activities of The National Board Inspection Code Committee. This support includes the time and financial resources needed to fulfil his obligations to the Committee should he be elected as a member.

Yours sincerely

A handwritten signature in black ink, appearing to read "R F Nimmo".

R F Nimmo
Managing Director

RESUME - STUART W. CAMERON

SUMMARY

Chief Engineer with Doosan Babcock who are a multi-discipline specialist energy services company employing over 4000 people and operating in the thermal power, nuclear and petrochemical industries.

Chartered Engineer and Fellow of Institution of Mechanical Engineers in UK

Extensive experience in UK and EU legislation and International Standards on pressure equipment

QUALIFICATIONS

Dates	College / University	Course	Qualification
1968 - 70	Univ. of Strathclyde	Mechanical Eng.	BSc (1st Class Hons)
1980 - 83	Univ. of Glasgow (part-time)	Management	MBA

SUMMARY OF CAREER HISTORY

2006 – pres.	Doosan Babcock	Chief Engineer
2000 - 06	Mitsui Babcock	Engineering Director - Europe
1998 - 00	Mitsui Babcock	Manager – Engineering
1996 - 97	Mitsui Babcock	Manager – Services Engineering
1987 - 96	Babcock Energy Ltd	Manager of Mechanical Design
1981 - 87	Babcock Energy Ltd	Manager of Pressure Part Engineering
1976 - 81	Babcock Energy Ltd	Head of Design Group
1974 - 76	Babcock Energy Ltd	Project Engineer
1972 - 74	Babcock Energy Ltd	Stress Analyst
1970 - 72	Babcock Energy Ltd	Design Engineer
1968 - 70	University of Strathclyde	Student
1967 - 68	John Brown Shipyard	Assistant Design Engineer
1962 - 67	John Brown Shipyard	Apprenticeship

DETAILS OF CAREER HISTORY

2006 – present – Chief Engineer

Following the acquisition by Doosan Heavy Industries of Korea was appointed Chief Engineer report directly to CEO with specific responsibility for Engineering 'Centre of Excellence' which is a group of experienced engineers who address technical risk management and competency issues throughout all parts of the Company.

Responsible for ensuring Company compliance with existing and new legislation regarding pressure equipment, risk assessment and the requirements for identifying competency of engineering staff.

Principal contact with parent company Doosan Heavy in Korea on development of common design tools, application of plant layout software and manufacturing standardisation.

Visiting Professor at the University of Strathclyde for the development and implementation of their MSc in Power Plant Systems.

2000 – 2006 Engineering Director - Europe

Reported directly to the Managing Director for Europe with specific responsibility for all Engineering activities in Europe. Principal focus of the Department is on EPC new build, major plant improvement projects, nuclear services and engineering support to the Regional offices on petrochemical and boiler plant work.

1998 – 2000 Manager – Engineering, Plant improvement and Energy Services

Company was reorganised in to matrix structure with four product teams and five worldwide regions. Responsible for all engineering on two of these product teams, namely Plant Improvement and Energy Services which carries out engineering on all UK Region projects and provides specialist support to the other regions...

Responsible for all proposal and project engineering activities on –

- boiler plant upgrades, refurbishment, fuel conversions, etc
- CHP plant
- combustion equipment
- support for regional offices (UK and International)
- manufacturing design and detailing

1997 - 98 Manager - Service Engineering

Manager of new Department reporting directly to the Engineering Director, based in the Crawley offices, which was formed to provide a dedicated Engineering support to the Energy Services Division of the Company, which contributes 50% of the company turnover.

Responsible for all proposal and project activities on boiler plant rehabilitation, combustion equipment, pipework and vessels. This included support for Licensees and the company Indian organisation.

1987 - 1996 Manager - Mechanical Design

Reporting direct to Engineering Director.

Work covers pressure parts, pipework, combustion equipment, draught plant and supporting structures and ranges from concept design through to detail design and draughting of components for manufacture. Responsible for engineering interfaces with Manufacturing and Construction Divisions.

Responsible for the sub-contracting of manufacture in the UK and Overseas to competent manufacturers that meet the Company technical and QA requirements.

Extensive involvement with potential Clients and sub-contractors on Proposals, particularly with a view to the sub-contract of manufacture. Represented the Company in USA, Finland, Germany, China, India, Taiwan as well as throughout the UK

1981 - 87 Manager of Pressure Part Engineering

Responsible for design and draughting of all pressure parts on boiler components covering steam drums, furnace walls, pipework, superheaters, reheaters and economisers.

Additional responsibilities included QA within Engineering at the Renfrew site and total engineering on pressure vessel contracts.

1976 - 81 Head of Design Group

Head of Design Group consisting of stress analysts, design engineers and draughtsmen. Work consisted of design of pressure parts for transient conditions, stress analysis and fracture mechanics assessment of petrochemical vessels, analysis of boiler components outwith Code specification. Presented papers on analysis of pressure components at several Conferences.

1974 - 76 Project Engineer

Co-ordinating engineering activities at Renfrew on proposals for new Nuclear Power station in the UK. Babcock representative on In-service Inspection Committee with representatives from CEGB, SSEB, Nuclear Inspectorate and UKAEA.

1972 - 74 Stress Analyst

Analysis of pressure containment of prototype nuclear reactor vessels for submarines using finite element techniques

1970 - 72 Design Engineer

Design of pressure parts on boilers and pressure vessels to BS1113, BS5500, ASME, etc.

OTHER ACTIVITIES

Codes and Standards

- 1981 - 93 Member of BSI Committee for BS5500 Pressure Vessels**
- 1993 Appointed Industrial Expert to Economic and Social Committee of EU to advise on Pressure Equipment Directive**
- 1994 - 2002 Member of BSI Engineering Sector Board representing pressure equipment and nuclear industries. Board consists of ten representatives from various Trade Associations, Inspection Bodies, DTI and HSE and is responsible for developing BSI policy on engineering matters, allocating resource within BSI and establishing priorities for DTI funding.**
- 2003 - present Chairman of BSI Pressure Vessel Policy Committee co-ordinating UK policy on European pressure equipment standards. Committee consists of representatives from Manufacturer's Trade Associations, Users, Inspection Authorities and Government.**
- 1994 - 1998 Lead UK delegate on CEN Pressure Equipment Committee in Brussels, supported by representatives from BSI and HSE.**

- 1998 – present UK expert on ISO TC11 – International Standard for the harmonisation of Boiler and Pressure Vessel Codes and Standards. Committee is responsible for developing a standard which will allow the harmonisation of national standards.
- 2005 – present Chairman of WG11 of TC11 for procedures on compliance of Standards and leader of task group of experts to advise National Standardising Bodies to application for registration
- 2005 – present Member of ASME Section I Committee on Power Boilers, Fabrication and Examination Sub-Group and International Materials Sub-Group.
- 2007 – present Member of ASME Committee on Boiler and Pressure Vessel Conformity Assessment

Institution of Mechanical Engineers

- 1991 - 93 Member of Council - IMechE and member of Membership Committee.
- 1995 – present On IMechE list of Fellows for conducting interviews for CEng candidates and chair interview panels 1-2 times / year.
- 1993 – 1999 Member of IMechE Investigatory Panel advising on cases of members considered to have misused their status of CEng or brought the name of the IMechE into disrepute
- 1996 - 2000 Member of IMechE Power Industries Board which establishes and monitors the business plan for the Power Industries Division, formulates the Division's input and response to IMechE initiatives and co-ordinates the various activities of the Technical Groups within the Division.
- 2008 – present Member of Trustee Board
- 2008 – present Vice Chairman of Scottish Region

PUBLICATIONS

External

- "Influence of Defect Assessment on the Design of Structures" - ICPVT - London May 1980
- "An appreciation of the problems associated with the use of fitness-for-purpose techniques" IMechE Conference on Defect Assessment - London 1981
- "Application of Finite Element Methods to Heat Recovery Boilers for two shifting duty" – International conference on Power Stations - Liege 1993
- "The PED from an HRSG Perspective" - keynote address to IMechE HRSG User Group - Birmingham Oct 2002
- "Complying with the PED using ASME Section I" - ASME International Seminar – Milan Oct 02

"Practical aspects of Safe Boiler Design" - IMechE Seminar on Safety Issues with Power Plants - London June 2004

"International Standards relevant to Inspection of Plant in the US" - National Board Meeting - Tennessee July 2005

International Markets and the significance of Standards"
presented at

- IMechE Seminar on CEN Standards for Business Benefits - London June 07
- PVP Conference - Prague July 09
- Keynote lecture at KEPIC Annual Conference - Korea Aug 09

Managing Risk in the Global Supply Chain, Addressing Common Standards and Multiple Codes
- Pressure Equipment Safety Seminar - Hong Kong Nov 09



S.W.Cameron

5 Feb 10



STATE OF WASHINGTON
DEPARTMENT OF LABOR AND INDUSTRIES

Specialty Compliance Services
Boiler/Pressure Vessel Program
PO Box 44410 • Olympia, Washington 98504-4410

February 23, 2010

RECEIVED

MAR 15 2010

THE NATIONAL BOARD OF
BOILER & PRESSURE VESSEL
INSPECTORS


Mr. Terry Parks
The National Board of Boiler and
Pressure Vessel Inspectors
1055 Crupper Avenue
Columbus, Ohio 43229

RE: NBIC Committee

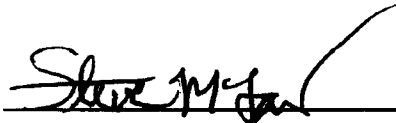
Dear Mr. Parks:

As per our conversation on January 21, 2010, I am submitting my name for nomination to the NBIC Committee at the July 2010 meeting. I bring with me over 25 years of experience in the Boiler/Pressure Vessel Industry as an ASME Sec IX qualified welder, AWS Welding Inspector, ASME Manufacturing/NB Repair Shop QC Manager, ASME Shop Inspector, Jurisdictional Inspector, ASME/NB Team Leader, and Chief Boiler Inspector for the state of Washington. I hold a National Board Commission with "A" "B" and "N" endorsements. The Department of Labor and Industries supports me in this effort.

Sincerely,



Linda Williamson
Chief Boiler/Pressure Vessel Inspector
State of Washington



Steve McLain
Assistant Director SCS
Department of Labor & Industries

Enclosure

Linda Williamson
5065 Patton Road, Bellingham, WA 98226
(360) 398-0378
Email: WILN235@lni.wa.gov

QUALIFICATIONS:

- Technical knowledge and abilities acquired through education and many years of experience in the manufacturing, maintenance and repair industry.
- Professional, managerial, and leadership skills gained through education and experience as business owner, community non-profit leader, enforcement official, state wide government program manager and public servant.

EXPERIENCE:

2005-Present **Department of Labor & Industries, Boiler Program**

Tumwater, WA

Chief Boiler Inspector

- Manage the Specialty Compliance Service Boiler/Pressure Vessel Program, which consists of 18 full time employees and a budget of 3.6 million dollars. Oversee the safe operation of more than 110,000 boilers and pressure vessels in the state.
- Administration of exams and commissioning of approximately 140 deputy and special boiler inspectors. Provide technical and professional training, not only to inspectors in Washington, but also to those in neighboring states.
- Auditing and verification of manufacturers and the provision of consultation services to our customers both external and internal.
- Review, interpret and enforce state laws, adopt national standards and department policies. Communicate with other regulatory agencies, stakeholders and involved customers to make determinations regarding state laws and departmental policies. Work in conjunction with the Board of Boiler Rules to provide consistent statewide safety standards making compliance easier for our customers.
- Work with department personnel to ensure the boiler program is in alignment with agency goals. Assist in the development and present to Executive Management Team a Boiler/Pressure Vessel Logic Model for the Government Management, Accountability and Performance Program.
- Work with Operations Manager, Senior Budget Analyst and Board of Boiler Rules to develop program budgets to ensure responsible use of state funds.
- Communicate with regional supervisors regarding inspector's issues and process improvement.
- Develop written material to educate our customers on the importance and benefits of safety inspections to promote voluntary compliance.

1994-2005 **Department of Labor & Industries, Boiler Program**

Bellingham, WA

Boiler and Pressure Vessel Inspector I & II

- Scheduled and performed safety inspections of uninsured boilers and pressure vessels to ensure safe operation and compliance with state law.
- Interpreted applicability of various sections of the Washington State boiler law and followed up on violations to ensure timely corrective action.
- Performed detailed fabrication inspection for ASME authorized manufacturers.
- Consulted with management, labor, stakeholder and others to provide information concerning all aspects concerning pressure vessel safety.
- Coordinated with other L&I sections to promote a safe and productive work environment in keeping with L&I's mission.
- Provided informal technical advice to inspector's in other offices and participated in ASME joint review for manufacturer's recertification.

1993-1994 **TIC – Texaco Puget Sound Refinery**

Anacortes, WA

Lead Inspector, Quality Assurance

- Supervised a team of 8 auditors, during a 50 million dollar refinery shut down with 500 thousand man-hours.
- Personally responsible for tracking and final inspection of over five hundred pressure vessels.

- 1988-1993 **Reid Boiler Works, Inc.** Bellingham, WA
Quality Control Manager & Office Manager
- Review, revision and administration of a quality control program established according to ASME Code and Washington State law, including: Preparation of drawings, design calculations, and material control.
 - Supervised as many as twelve production workers to ensure compliance with the quality control program.
 - Assisted Chairman of the Washington State Board of Boiler Rules with technical research and other related matters.
 - Responsible for financial management, including material procurement, accounts receivable, accounts payable, payroll, general ledger, inventory control, etc.

1987-1988 **Maritime Contractors, Inc.** Bellingham, WA
Welder/Fitter

- Welding, fitting, and nondestructive examination for the maintenance, repair, and construction of vessels to ABS and NAVSEA specifications. Qualified in SMAW, GTAW, and FCAW.

1985-1986 **Atlantic Richfield Company** Blaine, WA
General Maintenance Technician

- Trained and employed as a maintenance technician in the repair and construction of refinery equipment.
- Qualified in eight ASME welding procedures.
- Participated in the audit of their National Board "R" Stamp (repair) quality control program.

EDUCATION:

Whatcom Community College Bellingham WA

- Completed courses in General Education and Grant Writing

Bellingham Technical College Bellingham, WA

- Completed courses in Welding, Blueprint Reading, Metallurgy, Boiler, Computers
- Earned Certificate in Veterinary Assistant Program

National Board of Boiler and Pressure Vessel Inspectors Columbus, OH

- Completed courses in Authorized Inspector N, A, B, CSD.1, In-service Inspection
- Earned National Board Boiler Inspector Commission with A, B, N Endorsements.

Department of Labor & Industries

- Completed training in Investigation, Quality Control Facilitator, Performance Management, Safety
- Earned a Washington State Boiler Inspector Certificate of Competency

Harvard Kennedy School – Executive Education

- Driving Government Performance – Leadership Strategies

American Welding Society

- Earned a American Welding Society Welding Inspector Certificate

PROFESSIONAL ASSOCIATION:

- Past Chair of the Washington State Boiler Inspectors Association (WSBIA)
- Past member of the Department of Labor & Industries Regional Council
- Past member of the Department of Labor & Industries Health & Safety Council
- Secretary of the Board of Boiler Rules

INTERESTS:

- Founder and past president of Northwest Wildlife Rehabilitation. Responsible for all aspects of creating and running a non-profit organization, including incorporating, permitting, budgeting, fundraising and operations. I found great personal satisfaction in providing a much needed public service and in working in a collaborative manner with community leaders, regulating government agencies and the general public.

ALSTOM POWER INC. - USA
THERMAL PRODUCTS - HEAT RECOVERY
HRSG Field Engineering - Windsor Execution Center

CEP 8118-0426
2000 Day Hill Road
Windsor CT 06095-0500 USA
Phone: 860-285-2437
Fax: 860-285-4001
www.alstom.com

ALSTOM

March 2, 2010

Mr. David Douin, Executive Director
The National Board of Boiler and Pressure Vessel Inspectors
1055 Crupper Avenue
Columbus, OH 43229

Dear Mr. Douin,

I respectfully request consideration by the NBIC and National Board of my request for membership to the Subcommittee on Repairs and Alteration and the associated SubGroups for General and Specific. I have over twenty years experience with the design, manufacture, and repair of various types of boilers for locations within the US and around the world.

I have the full support of Alstom, both time and financial, to fully support the NBIC should I be approved for membership. I have attached a letter of support as well as my resume.

Respectfully,



Edward M. Ortman

cc: Jeanne Bock
George Galanes
Robin Hough
Terry Parks

ALSTOM POWER INC., USA
THERMAL PRODUCTS BUSINESS
HRSO Windsor Execution Center

2000 Day Hill Road
Windsor, CT 06095-0500 USA
Phone: 1 860 285
Fax: 1 860 285
www.alstom.com

ALSTOM

February 25, 2010

Mr. David Douin, Executive Director
The National Board of Boiler and Pressure Vessel Inspectors
1055 Crupper Avenue
Columbus, Ohio 43229

Subject: Support for participation of
Mr. Edward Ortman on NBIC Committees

Dear Mr Douin,

Please accept this letter as Alstom Power's commitment to provide the necessary support for Mr. Ortman to participate in the activities of The National Board Inspection Code Committee. This support includes the time and financial resources needed to fulfill his obligations to the Committee should he be elected as a member.

Very truly yours,



Timothy J. Barry, Director
Project Operations

TJB/af

EDWARD M. ORTMAN

HOME ADDRESS

184 Marshall Street
Winsted, CT 06098
(860)379-9248

WORK

Alstom Power, Inc.
CEP 8118-0426
2000 Day Hill Road
Windsor, CT 06095
Ph (860)285-2437, FAX (860)285-4001
edward.m.ortman@power.alstom.com

EDUCATION:

1989 - Graduate of Worcester Polytechnic Institute, B.S. Mechanical Engineering

EXPERIENCE:

7/03 – Present - **Alstom Power, Inc.**

Technology Manager

- develop / maintain company standards related to HRSGs.
- develop / maintain standards and programs related to ASME Code and EN standards including material purchase requirements.

Field Engineer

- support site personnel with issues during erection and commissioning of HRSGs.

2/99 – 6/03 - **Alstom Power, Inc.**

Manager of Product Engineering

Managed a group of 15+ Engineers responsible for the hardware and performance of the HRSG as well as HRSG related standards.

3/93 – 2/99 - **ABB Combustion Engineering Systems - SPB Engineering**

Product Engineering

- design and selection of hardware and auxiliaries for HRSGs
- development of standards for selection of HRSG and auxiliaries
- development of ASME Code related standards

Project Engineering

- primary technical interface for customer, Project Management, Purchasing
- coordination of Product and Mechanical Engineering to meet customer schedule

6/89 - 2/93 - **ABB Combustion Engineering Systems - Marine and Package Steam Generators**

Product Engineering

- design, selection, and testing of hardware and auxiliaries for package boilers and marine boilers
- maintenance of engineering computer programs

5/88 - 8/88 - **Combustion Engineering Inc. - Marine and Industrial Boiler Systems**

Development and maintenance of HRSG engineering programs.

6/87 - 8/87 - **The Torrington Company**

Testing and evaluation of machinery from two newly acquired businesses and consolidation of assets into the existing company.

STANDARDS ORGANIZATIONS:

Alstom

7/04 – Present Chattanooga Change Review Board for material Purchase Instructions and Material and Processing Specifications.

1/07 – Present Alstom Boiler Materials Council

ASME

12/02 – Present BPV I SubGroup HRSG - Member

7/07 – Present BPV I SubGroup General Requirements – Member

3/08 – Present QAI Subcommittee on Accreditation - Alternate

2/09 – Present BPV Committee on Power Boilers - Alternate

Walter J. Sperko, P.E.

Sperko Engineering Services, Inc. President
4803 Archwood Drive, Greensboro, North Carolina 27406-9795 USA
www.sperkoengineering.com
Voice: (336) 674-0600 FAX: (336) 674-0202 e-mail: sperko@asme.org

Sperko Engineering, founded in 1981, provides engineering consulting services to customers in the metal fabrication industries in the technical areas of welding, metallurgy, manufacturing processes, piping and pressure vessel design, inspection and quality assurance. Mr. Sperko also prepares and conducts training programs in piping, welding and metallurgy for The Center for Professional Advancement and ASME, as well as custom-tailored programs related to metal fabrication. Mr. Sperko the Technical Consultant to the National Certified Pipe Welding Bureau. In 2003, he founded Brazing Dimpler Corporation which supplies a patented tool that simplifies brazing of copper tube. See www.brazingdimpler.com.

1979 to 1981, Quality Control Manager
RECO North Carolina, Inc., a Division of Richmond Engineering Company
Colfax, North Carolina 27235

Responsible for directing the technical and quality control programs for RECO North Carolina and two other division facilities and for technical support in design, code compliance, welding, metallurgy and steel fabrication methods for all divisions of Richmond Engineering in the construction of ASME nuclear and non-nuclear pressure vessels, non-nuclear piping and API-type storage tanks.

1974 to 1979, Manager, Welding Engineering and R&D
ITT Grinnell Industrial Piping, Inc. Kernersville, North Carolina 27284

Wrote and qualified all welding, fabrication, heat treating, and quality control procedures and provided technical support for the fabrication and erection of nuclear and conventional power piping and petroleum and chemical piping. Provided interface between customers and manufacturing by interpreting customer specifications and Codes and preparing procedures and standards accordingly.

1969 to 1974, Materials Engineer
Ebasco Services Inc. New York, New York

Performed various failure analyses of components, evaluated materials for compatibility with environment and for suitability for intended service for use in conventional and nuclear power generation systems. Provided metallurgical and welding support to piping and pressure vessel design group. Wrote materials, NDT and Quality Assurance Specifications. Conducted QA audits of vendor facilities and QA programs. Member of Ebasco Corporate QA Committee.

Walter J. Sperko, P.E.

PROFESSIONAL LICENSE STATUS

Professional Engineer registered in North Carolina, New Hampshire and Ohio

PATENTS

US Patent 4932160, Quick-Opening Pressure Vessel Closure

US Patent 5072960, Loading Cart Method

US Patent 6269674 Tubular Fitting Tool and Method

US Patent 7013699 Pipe Fitting Tool and Method

CODE COMMITTEE MEMBERSHIP

ASME Boiler and Pressure Vessel Code

- Subcommittee IX (*Welding and Brazing*), Vice-chairman, member of several Subgroups
- Subcommittee IX/II, Subgroup on Strength of Weldments
- Subcommittee III, (Nuclear) Materials, Fabrication & Examination Subgroup

ASME B31.9, *Building Services Piping*, Chairman

ASME B31 Standards Committee, member

American Welding Society Committee D-10, *Piping and Tubing*, Past Chairman

AWS Technical Activities Committee (TAC)

AWS International Standards Activities Committee (ISAC), Chairman

LECTURING and TRAINING

Course Director since 1983 for a highly successful three-day course, *Welding and Brazing per ASME Section IX* under the sponsorship of ASME.

Course Co-Director since 1978 for three-day course *Piping Design, Analysis and Fabrication* under the sponsorship of the Center for Professional Advancement, East Brunswick, New Jersey. The course is held each year in North America and in Europe.

PUBLICATIONS

Publishes articles regularly in *Welding Design and Fabrication*, *The Fabricator* and the *Welding Journal* regarding piping fabrication, installation and inspection issues and ASME Section IX. Most recent article was in the December, 2007 issue of the *Journal*. Co-author of piping design section of the Standard Handbook of Plant Engineering.

AWARDS

AWS Counselor, Class of 2006

ASME Fellow, 2007

EDUCATION

University of Notre Dame, Notre Dame, Indiana

B.A. 1968 - Engineering

B.S. 1969 - Metallurgical Engineering and Materials Science

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

NBIC Repairs and Alterations (Specific)

NB-Item No.: NB10-0101 Part 3, Section 5, Paragraph 5.10

Explanation of Assignment Needed: Change 5.10 to facilitate information flow, requirements for PRI stamping and nameplates.

Assigned To: B. Boseo, J. Given, & J. Sekey

Background: N/A

Existing Text in - 09 Addenda R&A, Part 3, Table of Contents	Proposed Revision	Rational
5.8 REMOVAL OF ORIGINAL STAMPING OR NAMEPLATE	5.11 REMOVAL OF ORIGINAL STAMPING OR NAMEPLATE	To Facilitate Subject Flow
5.9 STAMPING REQUIREMENTS FOR PRESSURE RELIEF DEVICES	5.12 STAMPING REQUIREMENTS FOR PRESSURE RELIEF DEVICES	
5.9.1 Nameplates 5.9.2 Repair Nameplate 5.9.3 Changes to Original Pressure Relief Valve Nameplate Information 5.9.4 Test Only Nameplate 5.9.5 Replacement of Illegible or Missing Nameplates	5.12.1 Nameplates 5.12.2 Repair Nameplate 5.12.3 Changes to Original Pressure Relief Valve Nameplate Information 5.12.4 Test Only Nameplate 5.12.5 Replacement of Illegible or Missing Nameplates	
5.11 STAMPING FOR FIBER-REINFORCED VESSELS	5.8 REMOVAL OF ORIGINAL STAMPING OR NAMEPLATE	Duplication
5.11.1 REMOVAL OF ORIGINAL STAMPING OR NAMEPLATE	Deleted	
5.11.2 STAMPING FOR REPAIRS	5.8.1 STAMPING FOR REPAIRS	To Facilitate Subject Flow
5.11.3 STAMPING FOR ALTERATIONS	5.8.2 STAMPING FOR ALTERATIONS	
5.12 STAMPING REQUIREMENTS FOR YANKEE DRYERS	5.9 STAMPING REQUIREMENTS FOR YANKEE DRYERS	

NBIC Repairs and Alterations (Specific)

<p>R&A, Part 3, Section 1</p> <p>1.7.7.5 OUTLINE OF REQUIREMENTS FOR A QUALITY SYSTEM</p> <p>1) Valve Repair Nameplates An effective valve stamping system shall be established to ensure proper stamping of each valve as required by 5.9.2. The manual shall include a description of the nameplate or a drawing.</p>		
<p>5.7 STAMPING REQUIREMENTS FOR REPAIRS AND ALTERATIONS</p> <p>5.7.1 GENERAL</p> <p>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. 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 alteration shall apply the stamping. For a rerating where no physical changes are made to the pressure-retaining item, the "R" Certificate Holder responsible for design shall apply the stamping.</p>	<p>1.7.7.5 OUTLINE OF REQUIREMENTS FOR A QUALITY SYSTEM</p> <p>1) Valve Repair Nameplates An effective valve stamping system shall be established to ensure proper stamping of each valve as required by 5.12.2. The manual shall include a description of the nameplate or a drawing.</p>	<p>R&A, Part 3, Section 5</p>
<p>5.8 REMOVAL OF ORIGINAL STAMPING OR NAMEPLATE</p> <p>If it becomes necessary to remove the original stamping, the Inspector shall, subject to the approval of the Jurisdiction, witness the</p>	<p>5.7.1 GENERAL</p> <p>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 the repair or the construction portion of the alteration shall apply the stamping. For a rerating where no physical changes are made to the pressure-retaining item, the "R" Certificate Holder responsible for design shall apply the stamping.</p>	<p>5.7 STAMPING REQUIREMENTS FOR REPAIRS AND ALTERATIONS</p> <p>5.7.1 GENERAL</p> <p>Reads better</p>
<p>5.11 REMOVAL OF ORIGINAL STAMPING OR NAMEPLATE</p> <p>If it becomes necessary to remove the original stamping, the Inspector shall, subject to the approval of the Jurisdiction, witness the</p>	<p>5.8 REMOVAL OF ORIGINAL STAMPING OR NAMEPLATE</p> <p>If it becomes necessary to remove the original stamping, the Inspector shall, subject to the approval of the Jurisdiction, witness the</p>	<p>To facilitate subject flow</p>

NBIC Repairs and Alterations (Specific)

<p>making of a facsimile of the stamping, the obliteration of the old stamping, and the transfer of the stamping to the new item. When the stamping is on a nameplate, the Inspector shall witness the transfer of the 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.</p>	<p>making of a facsimile of the stamping, the obliteration of the old stamping, and the transfer of the stamping to the new item. When the stamping is on a nameplate, the Inspector shall witness the transfer of the 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.</p>	
<p>5.9 STAMPING REQUIREMENTS FOR PRESSURE RELIEF DEVICES</p> <p>5.9.1 NAME PLATES</p> <p>Proper marking and identification of tested or repaired valves is critical to ensuring acceptance during subsequent inspections, and also provide for traceability and identification of any changes made to the valve. All operations that require the valve's seals to be replaced shall be identified by a nameplate as described in 5.9.2 or 5.9.4.</p>	<p>5.12 STAMPING REQUIREMENTS FOR PRESSURE RELIEF DEVICES</p> <p>5.12.1 NAME PLATES</p> <p>Proper marking and identification of tested or repaired valves is critical to ensuring acceptance during subsequent inspections, and also provide for traceability and identification of any changes made to the valve. All operations that require the valve's seals to be replaced shall be identified by a nameplate as described in 5.12.2 or 5.12.4.</p>	
<p>5.9.2 REPAIR NAME PLATE</p> <p>When a pressure relief valve is repaired, a metal repair nameplate stamped with the information required below shall be securely attached to the valve adjacent to the original manufacturer's stamping or nameplate. If not mounted directly on the valve, the nameplate shall be securely attached so as not to interfere with valve operation and sealed in accordance with the quality system.</p> <p>a) Prior to attachment of the repair nameplate, the previous repair nameplate,</p>	<p>5.12.2 REPAIR NAMEPLATE</p> <p>When a pressure relief valve is repaired, a metal repair nameplate stamped with the information required below shall be securely attached to the valve adjacent to the original manufacturer's stamping or nameplate. If not mounted directly on the valve, the nameplate shall be securely attached so as not to interfere with valve operation and sealed in accordance with the quality system.</p> <p>No Change</p>	



NBIC Repairs and Alterations (Specific)

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<p>if applicable, shall be removed from the repaired valve.</p> <p>b) As a minimum, the information on the valve repair nameplate (see Figure 5.7.5-e) shall include:</p> <ol style="list-style-type: none"> 1) The name of the repair organization preceded by the words "repaired by"; 2) The "VR" repair symbol stamp and the "VR" Certificate Number; 3) Unique identifier (e.g., repair serial number, shop order number, etc.); 4) Date of repair; 5) Set pressure; 6) Capacity and capacity units (if changed from original nameplate due to set pressure or service fluid change); 7) Type/Model number (if changed from original nameplate by a conversion. See Supplement S7.2); and 8) When an adjustment is made to correct for service conditions of superimposed back pressure and/or temperature or the differential between popping pressure between steam and air (see 4.5.2), the information on the valve repair nameplate shall include the: <ol style="list-style-type: none"> a. Cold Differential Test Pressure (CDTP), and b. Superimposed Back Pressure (BP) 		
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NBIC Repairs and Alterations (Specific)

(only when applicable).		
<p>5.9.3 CHANGES TO ORIGINAL PRESSURE RELIEF VALVE NAMEPLATE INFORMATION</p> <p>a) If the set pressure is changed, the set pressure, capacity, and blowdown, if applicable, on the original nameplate or stamping shall be marked out but left legible. The new capacity shall be based on that for which the valve was originally certified.</p> <p>b) If the service fluid is changed, the capacity, including units, on the original nameplate or stamping shall be marked out but left legible. The new capacity shall be based on that for which the valve was originally certified, or if a conversion has been made, as described in S7.2 on the capacity certification for the valve as converted.</p> <p>c) If the Type/Model number is changed, the Type/Model number on the original nameplate shall be marked out but left legible.</p> <p>d) If the blowdown is changed, the blowdown on the original nameplate or stamping shall be marked out but left legible. The new blowdown may be based on the current ASME Code requirements.</p> <p>e) Incorrect information on the original Manufacturer's nameplate shall be marked out but left legible. Corrected information shall be indicated on the repair nameplate and noted on the document as required by</p>	<p>5.12.3 CHANGES TO ORIGINAL PRESSURE RELIEF VALVE NAMEPLATE INFORMATION</p> <p>No Change</p> <p>b) If the service fluid is changed, the capacity, including units, on the original nameplate or stamping shall be marked out but left legible. The new capacity shall be based on that for which the valve was originally certified, or if a conversion has been made, as described in Supplement S7.2 on the capacity certification for the valve as converted.</p> <p>No Change</p>	<p>To facilitate subject flow</p> <p>Changed for consistency</p>

NBIC Repairs and Alterations (Specific)

the quality system.		
<p>5.9.4 TEST ONLY NAMEPLATE</p> <p>a) Where a valve has been tested and adjusted, as permitted by S7.10.1, but not otherwise repaired, a "Test Only" nameplate shall be applied that contains the following information:</p> <ol style="list-style-type: none"> 1) Name of responsible organization; 2) Date of test; 3) Set Pressure; and 4) Identification, such as "Test Only." <p>b) A "test only" nameplate is also recommended when periodic testing has been performed, even when no adjustments have been made, for the purpose of identifying the date the valve was tested.</p> <p>c) The existing repair nameplates, if applicable, shall not be removed during such testing.</p> <p>5.9.5 REPLACEMENT OF ILLEGIBLE OR MISSING NAMEPLATES</p> <p>a) Illegible Nameplates When the information on the original manufacturer's or assembler's nameplate or stamping is illegible, but traceability can be confirmed, the nameplate or stamping will be augmented or replaced by a nameplate furnished by the "VR" stamp holder stamped "duplicate." It shall contain</p>	<p>5.12.4 TEST ONLY NAMEPLATE</p> <p>a) Where a valve has been tested and adjusted, as permitted by Supplement S7.10.1, but not otherwise repaired, a "Test Only" nameplate shall be applied that contains the following information:</p> <p style="text-align: center;">No Change</p> <p>5.12.5 REPLACEMENT OF ILLEGIBLE OR MISSING NAMEPLATES</p> <p>a) Illegible Nameplates When the information on the original manufacturer's or assembler's nameplate or stamping is illegible, but traceability can be confirmed, the nameplate or stamping will be augmented or replaced by a nameplate furnished by the "VR" stamp holder stamped "duplicate." It shall contain</p>	<p>To facilitate subject flow</p> <p>Changed for consistency</p> <p>To facilitate subject flow</p>

NBIC Repairs and Alterations (Specific)

<p>all information that originally appeared on the nameplate or valve, as required by the applicable section of the ASME Code, except the "V," "HV," or "UV" symbol and the National Board mark. The repair organization's nameplate, with the "VR" stamp and other required data specified in 5.9.2, will make the repairer responsible to the owner and the jurisdiction that the information on the duplicate nameplate is correct.</p>	<p>all information that originally appeared on the nameplate or valve, as required by the applicable section of the ASME Code, except the "V," "HV," or "UV" symbol and the National Board mark. The repair organization's nameplate, with the "VR" stamp and other required data specified in 5.12.2, will make the repairer responsible to the owner and the jurisdiction that the information on the duplicate nameplate is correct.</p>	
<p>b) Missing Nameplates When the original valve nameplate is missing, the repair organization is not authorized to perform repairs to the valve under the "VR" program, unless positive identification can be made to that specific valve and verification that the valve was originally stamped with an ASME "V" or "UV" symbol or marked with an ASME "HV" symbol. Valves that can be positively identified will be equipped with a duplicate nameplate, as described in this section, in addition to the repairer's "VR"-stamped nameplate. The repairer's responsibilities for accurate data, as defined in 5.9.5(a) (Illegible Nameplates), shall apply.</p>	<p>b) Missing Nameplates When the original valve nameplate is missing, the repair organization is not authorized to perform repairs to the valve under the "VR" program, unless positive identification can be made to that specific valve and verification that the valve was originally stamped with an ASME "V" or "UV" symbol or marked with an ASME "HV" symbol. Valves that can be positively identified will be equipped with a duplicate nameplate, as described in this section, in addition to the repairer's "VR"-stamped nameplate. The repairer's responsibilities for accurate data, as defined in 5.12.5(a) (Illegible Nameplates), shall apply.</p>	
<p>c) Marking of Original Code Stamp When a duplicate nameplate is affixed to a valve, as required by this section, it shall be marked "Sec. I," "Sec. IV," or "Sec. VIII," as applicable, to indicate the original ASME Code stamping.</p>	<p>No Change</p>	
<p>5.10 ALTERNATIVE MARKING AND STAMPING FOR GRAPHITE PRESSURE EQUIPMENT</p>		

NBIC Repairs and Alterations (Specific)

<p>a) General Requirements</p> <ol style="list-style-type: none"> 1) This procedure may be used in lieu of the stamping and nameplate requirements defined in this section. 2) The required data as defined in this section shall be 5/32 in. (4 mm) high, minimum. 3) The National Board code symbol ("R") shall be used to make the impression in the cement. <p>b) Application of the "R" Code Symbol</p> <ol style="list-style-type: none"> 1) The graphite surface shall be clean and smooth. 2) Apply a thin coating of cement onto the Code part. The cement should have the consistency of toothpaste. 3) Apply sufficient heat to the cement so that it begins to form a skin. 4) Apply a coating of a thinned release agent, such as "ANTISEIZE," to the tip of the "R" stamp with a brush. 5) Press the coated stamp all the way to the bottom of the cement and remove by pulling straight out before the cement hardens. 6) Cure or heat the impression as required. 7) When cured, the part may be washed to remove any excess release agent. 		
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<p>c) Application of characters directly to graphite</p> <ol style="list-style-type: none"> 1) Use a very thin template of a flexible material (stainless steel; flexible and easily cleaned). 2) Place the template over a clean smooth surface. 3) Hold the template securely and trowel over with approved cement to fill all of the template area. 4) Carefully lift the template from the graphite part and examine the detail of the characters. 5) If acceptable, cure the cement. 6) If the characters are incorrect or damaged, wipe off the cement with a compatible solvent and reapply. <p>Note: The preceding methods can be applied jointly to identify the graphite part and to transfer the "R" stamp.</p> <p>5.11 STAMPING FOR FIBER-REINFORCED VESSELS</p> <p>The attaching of a nameplate to a repaired or altered vessel or tank shall indicate that the work was performed in accordance with the requirements of this Code. The attachment of a nameplate shall be done only with the knowledge and authorization of the Inspector. The Certificate Holder responsible for the repair or alteration shall apply the stamping</p>	<p>5.8 STAMPING FOR FIBER-REINFORCED VESSELS</p> <p>The attaching of a nameplate to a repaired or altered vessel or tank shall indicate that the work was performed in accordance with the requirements of this Code. The attachment of a nameplate shall be done only with the knowledge and authorization of the Inspector. The Certificate Holder responsible for the repair or alteration shall apply the stamping</p>	<p>To facilitate subject flow</p>
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NBIC Repairs and Alterations (Specific)

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<p>nameplate. Required stamping and nameplate information are shown in NBIC, Part 3, 5.7.</p> <p>5.11.1 REMOVAL OF ORIGINAL STAMPING OR NAMEPLATE</p> <p>If it becomes necessary to remove the original stamping, the Inspector shall, subject to the approval of the Jurisdiction, witness the making of a facsimile of the stamping, the obliteration of the old stamping, and the transfer of the stamping to the new item. When the stamping is on a nameplate, the Inspector shall witness the transfer of the nameplate to the new location. Any relocation shall be described on the applicable NBIC form. The restamping or replacement of a code symbol stamp shall be performed only as permitted by the governing code of construction.</p> <p>5.11.2 STAMPING FOR REPAIRS</p> <p>Pressure-retaining items repaired in accordance with the NBIC shall have a nameplate as required by Section 5.7. Subject to the acceptance of the jurisdiction and the concurrence of the Inspector, nameplates may not be required for routine repairs. (See 5.7.2 [b]). In all cases, the type and extent of repairs necessary shall be considered prior to waiving the requirement.</p> <p>5.11.3 STAMPING FOR ALTERATIONS</p> <p>The nameplate shall be applied in accordance with Section 5.7. The location of the nameplate shall be documented on the Form R-2.</p> <p>5.12 STAMPING REQUIREMENTS FOR YANKEE DRYERS</p>	<p>nameplate. Required stamping and nameplate information are shown in NBIC, Part 3, 5.7.</p> <p>Delete</p> <p>5.8.1 STAMPING FOR REPAIRS</p> <p>Pressure-retaining items repaired in accordance with the NBIC shall have a nameplate as required by Section 5.7. Subject to the acceptance of the jurisdiction and the concurrence of the Inspector, nameplates may not be required for routine repairs. (See 5.7.2 [b]). In all cases, the type and extent of repairs necessary shall be considered prior to waiving the requirement.</p> <p>5.8.2 STAMPING FOR ALTERATIONS</p> <p>The nameplate shall be applied in accordance with Section 5.7. The location of the nameplate shall be documented on the Form R-2.</p> <p>5.9 STAMPING REQUIREMENTS FOR YANKEE DRYERS</p>	<p>Redundant</p> <p>To facilitate subject flow</p>
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NBIC Repairs and Alterations (Specific)

<p>a) Stamping is not required for repairs that do not affect the pressure-retaining capability of the Yankee shell, as indicated on the De-rate Curve, or other pressure-retaining parts, as indicated on the original Manufacturer's Data Report.</p> <p>b) Stamping is required for repairs that do affect the pressure-retaining capability of the Yankee shell, as indicated on the De-rate Curve, or other pressure-retaining parts as indicated on the original Manufacturer's Data Report.</p> <p>c) Stamping is required for alterations as listed in S5.7.2</p> <p>d) Stamping, when required, shall meet the requirements for stamping in 5.7.3. The location of stamping shall be described in the "remarks" section of Form R-2.</p> <p>Supplement 7</p> <p>S7.2 GENERAL REQUIREMENTS</p> <p>b) Conversions, changes, or adjustments affecting critical parts are also considered repairs. The scope of conversions may include changes in service fluid and changes such as bellows, soft seats, and other changes that may affect Type/Model number provided such changes are recorded on the document as required for a quality system and the repair nameplate. (See 5.9.1).</p> <p>S7.14.2 SPRING-LOADED PRESSURE RELIEF VALVES</p>	<p>No Change</p> <p>c) Stamping is required for alterations as listed in Supplement S5.7.2</p> <p>No Change</p> <p>b) Conversions, changes, or adjustments affecting critical parts are also considered repairs. The scope of conversions may include changes in service fluid and changes such as bellows, soft seats, and other changes that may affect Type/Model number provided such changes are recorded on the document as required for a quality system and the repair nameplate. (See 5.12.1).</p>	<p>Changed for consistency</p> <p>To facilitate subject flow</p>
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NBIC Repairs and Alterations (Specific)

(5)

<p>f) Nameplate The repairer will place a repair nameplate on each repaired valve. The nameplate shall, as a minimum, meet the requirements of 5.9.1.</p> <p>S7.14.3 PILOT OPERATED SAFETY RELIEF VALVES</p> <p>g) Nameplate The repairer will place a repair nameplate on each repaired valve. The nameplate, as a minimum, shall meet the requirements of 5.9.1.</p>	<p>f) Nameplate The repairer will place a repair nameplate on each repaired valve. The nameplate shall, as a minimum, meet the requirements of 5.12.1.</p> <p>g) Nameplate The repairer will place a repair nameplate on each repaired valve. The nameplate, as a minimum, shall meet the requirements of 5.12.1</p>	
<p>Supplement 9</p> <p>S9.3 GENERAL RULES</p> <p>e) When an ASME "NV"-stamped pressure relief device requires a duplicate nameplate because the original nameplate is illegible or missing, it may be applied using the procedures of 5.9.5 provided concurrence is obtained from the Authorized Nuclear Inspector and Jurisdiction. In this case the nameplate shall be marked "SEC. III" to indicate the original ASME Code stamping.</p> <p>R&A, Part 3, Index</p> <p>Capacity Certification — Part 1, Part 2 and Part 3 (5.9.3), (Section 9)</p> <p>Illegible Nameplates — Part 3 (5.9.5)</p> <p>Jurisdiction — Part 1 (Foreword), (Introduction), (1.4.3); Part 2 (Foreword), (Introduction), (1.2), (2.5.8), (5.3.1), (5.3.4), (5.4.7), (5.5.1),</p>	<p>e) When an ASME "NV"-stamped pressure relief device requires a duplicate nameplate because the original nameplate is illegible or missing, it may be applied using the procedures of 5.12.5 provided concurrence is obtained from the Authorized Nuclear Inspector and Jurisdiction. In this case the nameplate shall be marked "SEC. III" to indicate the original ASME Code stamping.</p> <p>Capacity Certification — Part 1, Part 2 and Part 3 (5.12.3), (Section 9)</p> <p>Illegible Nameplates — Part 3 (5.12.5)</p> <p>Jurisdiction — Part 1 (Foreword), (Introduction), (1.4.3); Part 2 (Foreword), (Introduction), (1.2), (2.5.8), (5.3.1), (5.3.4), (5.4.7), (5.5.1),</p>	

NBIC Repairs and Alterations (Specific)

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<p>(S1.2); Part 3 (Foreword) (Introduction), (3.3.2), (3.3.4.3(e)), (3.4.1), (3.4.2), (4.2), (4.3), (4.4), (4.4.1), (4.4.2), (4.5), (5.7), (5.9.5), (S2.2), (S4.16.4), (S6.3)</p>	<p>(S1.2); Part 3 (Foreword), (Introduction), (3.3.2), (3.3.4.3(e)), (3.4.1), (3.4.2), (4.2), (4.3), (4.4), (4.4.1), (4.4.2), (4.5), (5.7), (5.12.5), (S2.2), (S4.16.4), (S6.3)</p>	
<p>Nameplates — Part 2 (5.2); Part 3 (5.9), (5.9.1), (5.9.2), (5.9.3), (5.9.4), (5.9.5), (5.9.6), (5.9.6.1), (5.9.6.2), (5.9.6.3), (5.9.6.4), (5.9.6.5), (5.10), (5.11), (5.11.1), (5.11.3), (5.12), (5.11.2), (S1.2.10), (S1.2.11), (S1.2.11.1), (S1.2.11.2), (S1.2.11.3), (S1.2.11.4), (S1.2.11.5), (S1.2.11.6), (S1.2.12), (S1.2.12.1), (S1.2.12.2), (S6.14.1)</p>	<p>Nameplates — Part 2 (5.2); Part 3 (5.8), (5.8.1), (5.8.2), (5.9), (5.10), (5.11), (5.12), (5.12.1), (5.12.2), (5.12.3), (5.12.4), (5.12.5), (delete 5.9.6), (delete 5.9.6.1), (delete 5.9.6.2), (delete 5.9.6.3), (delete 5.9.6.4), (delete 5.9.6.5), (S1.2.10), (S1.2.11), (S1.2.11.1), (S1.2.11.2), (S1.2.11.3), (S1.2.11.4), (S1.2.11.5), (S1.2.11.6), (S1.2.12), (S1.2.12.1), (S1.2.12.2), (S6.14.1)</p>	
<p>"NR" Symbol Stamp — Part 3 (1.8.4), (5.9)</p>	<p>"NR" Symbol Stamp — Part 3 (1.8.4), (5.12)</p>	
<p>Parts — Part 1 (2.6.3.3), (2.9.2), (3.7.4), (3.7.7), (8.4), (S1.3); Part 2 (2.3.5), (2.1), (2.2.6), (2.2.7), (2.2.10), (2.2.12), (2.3.4), (2.3.5), (2.3.6), (2.5.7), (2.5.8), (8.4); Part 3 (1.7.7.5), (1.8.5), (3.2.2), (3.3.3), (4.5.1), (4.5.4), (5.2.2), (5.9.6.5), (5.12), (8.4), (S2.7.2), (S2.13), (S3.2), (S3.5), (S4.9), (S5.3.1), (S5.6), (S7.2)</p>	<p>Parts — Part 1 (2.6.3.3), (2.9.2), (3.7.4), (3.7.7), (8.4), (S1.3); Part 2 (2.3.5), (2.1), (2.2.6), (2.2.7), (2.2.10), (2.2.12), (2.3.4), (2.3.5), (2.3.6), (2.5.7), (2.5.8), (8.4); Part 3 (1.7.7.5), (1.8.5), (3.2.2), (3.3.3), (4.5.1), (4.5.4), (5.2.2), (delete 5.9.6.5), (5.9), (8.4), (S2.7.2), (S2.13), (S3.2), (S3.5), (S4.9), (S5.3.1), (S5.6), (S7.2)</p>	
<p>Pressure Relief Devices — Part 1 (2.9), (3.9), (4.5); Part 2 - (2.2.10.6), (2.5); Part 3 (4.5), (5.9)</p>	<p>Pressure Relief Devices — Part 1 (2.9), (3.9), (4.5); Part 2 - (2.2.10.6), (2.5); Part 3 (4.5), (5.12)</p>	
<p>Pressure Relief Valve Nameplates — Part 3 (5.9.2), (5.9.3), (5.9.4), (5.9.5), (5.9.6), (Supplement 7), (Supplement 8)</p>	<p>Pressure Relief Valve Nameplates — Part 3 (5.12.2), (5.12.3), (5.12.4), (5.12.5), (delete 5.9.6), (Supplement 7), (Supplement 8)</p>	
<p>Removal of Stamping — Part 3 (5.8), (S6.14.1)</p>	<p>Removal of Stamping — Part 3 (5.11), (S6.14.1)</p>	

NBIC Repairs and Alterations (Specific)

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Replacement Stamping — Part 2 (5.2), (5.5.2); Part 3 (5.8), (5.9.3), (5.9.5), (5.9.6), (5.10), (5.11)	Replacement Stamping — Part 2 (5.2), (5.5.2); Part 3(5.8), (5.10), (5.11), (5.12.3), (5.12.5), (delete 5.9.6),	

Action Item

NB 10 – 0102

Present Wording

S1.2.10 REPAIRS AND ALTERATIONS TO BOILER BARREL UNSTAYED AREAS

- a) Defects such as cracks and wastage may be repaired by weld buildup, a welded flush patch or a riveted patch. Installation of a riveted patch shall be considered an alteration. Prior to repairing cracks, the plate shall be examined for defects. Affected sections shall be repaired.


Proposed Wording

S1.2.10 REPAIRS AND ALTERATIONS TO BOILER BARREL UNSTAYED AREAS

- a) Except as provided in 3.3.4.8 a repair of a defect in a welded joint or base material shall not be made until the defect has been removed. A suitable Nondestructive Examination (NDE) method such as Magnetic Particle (MT) or Liquid Penetrant (PT) may be necessary to ensure complete removal of the defect. If the defect penetrates the full thickness of the material, the repair shall be made with a full penetration weld such as a double butt weld or a single butt weld with or without backing. Where circumstances indicate that the defect is likely to recur, consideration should be given to removing the defective area and installing a flush patch or taking other corrective measures acceptable to the Inspector and when required by the Jurisdiction.

Rationalization: To bring wording into alignment with 3.3.4.1



Re: 2 new action items 
Francis Brown to: Robin Hough

01/05/2010 02:24 PM

Hi Robin,

I think I never replied to you about the 2 action items.

NB10-0106 Part 3 S4.16.3 a)

Change Manufacturer's Design Report to Fabricator's Design Report. Agree.

NB10-0107 Part 3 S4.1.18.1 b)

Add the word alteration to this sentence. The sentence should read, " The repair or alteration shall meet the requirements of the original construction standard.... I think the reference should be S4.18.1 b). Agree.

Sorry for the late response.

Francis

During the vacuum test, the vacuum source may be left connected to the vessel to compensate for leakage at fittings. All vessels acoustic emission tested, as required by the original code of construction, shall be retested during the vacuum test concentrating on the repaired or altered part of the vessel.

S4.16 ADDITIONAL REQUIREMENTS FOR REPAIRS

S4.16.1 SCOPE

This section provides additional requirements for repairs to pressure-retaining items and shall be used in conjunction with S4.1 thru S4.14 and S4.18.

S4.16.2 DRAWINGS

Drawings shall be prepared or modified to describe the repair. Drawings shall include sufficient information to satisfactorily perform the repair.

S4.16.3 REPAIR PLAN

When repairs other than those defined in S4.16.4 are being made to ASME Section X or RTP-1 stamped equipment, the user shall prepare or cause to have prepared a detailed plan covering the scope of the repair.

- a) **Professional Engineer Review**
The repair plan shall be reviewed and certified by a Professional Engineer who is registered in one or more of the states of the United States of America or the provinces of Canada and is experienced in reinforced plastic vessel design. The review and certification shall be such to ensure that the work involved in the repair is compatible with the *User's Design Specification* or *User's*

Basic Requirements Specification and the *Manufacturer's Design Report*. The certification shall also include any drawings and calculations prepared as part of the repair plan.

- b) **Authorized Acceptance**
Following review and certification, the repair plan shall be submitted to the Inspector for his review and acceptance. Repairs to pressure-retaining items shall not be initiated without the authorization of the Inspector. Subject to acceptance of the Jurisdiction, the Inspector may give prior approval for routine repairs, provided the Inspector assures that the Certificate Holder has acceptable procedures covering the repairs.

S4.16.4 ROUTINE REPAIRS

Prior to performing routine repairs, the Certificate Holder should determine that routine repairs are acceptable to the Jurisdiction where the work is to be performed.

- a) Acceptable routine repairs are listed below:
- 1) The addition or repair of non-load bearing attachments to pressure-retaining items where post curing is not required.
 - 2) Replacement and repair of damaged corrosion liner areas in shells and heads shall not exceed 100 sq. in. (65 sq. cm) and not exceed the original corrosion liner thickness.
- b) Routine repairs may be performed under the Certificate Holder's quality system program; however, the requirement for in-process involvement of the Inspector and stamping are waived. (See Section 5 of this part).

- 2) Hold the maximum load for at least 30 minutes.
- 3) Condition the vessel by holding at reduced load as required by Section V, Article 11, T-1121.
- 4) Retest the vessel as required by this appendix.
- 5) The vessel shall be judged against the evaluation criteria for subsequent loadings.
- f) Hold time for the examination by the Inspector shall be the time necessary for the Inspector to conduct the inspection.
- g) When pressure testing using liquids is not practical, other methods shall be used as follows:
 - 1) The pressure test may be a pneumatic test provided the Certificate Holder has the concurrence of the Inspector, the jurisdictional authority where required, and the owner. Precautionary requirements of the applicable section of the original code of construction shall be followed.
 - 2) For vessels designed for vacuum, a vacuum test shall be carried out to as close as practical to the design vacuum level of the vessel. During the vacuum test the vacuum source may be left connected to the vessel to compensate for leakage at fittings. All vessels originally acoustic emission tested shall be retested during the vacuum test concentrating on the repaired or altered part of the vessel.

S4.18 REPAIR AND ALTERATION METHODS

S4.18.1 GENERAL REQUIREMENTS

- a) In general, when a defective or damaged vessel wall is to be repaired, the total structural laminate sequence of laminate construction removed as part of the repair shall be replaced. The replacement laminate shall provide structural properties meeting or exceeding the requirement of the original construction standard. Moreover, when damage includes the corrosion barrier, a corrosion barrier of the same type, which shall meet or exceed the barrier properties of the original construction, shall replace the corrosion barrier removed as part of the repair.
- b) The repair shall meet the requirements of the original construction standard.

S4.18.2 CLASSIFICATION OF REPAIRS

- a) Vessel repairs shall be classified into the following types:
 - 1) Type 1a — Corrosion barrier repairs
 - 2) Type 1b — Corrosion barriers with precision bores
 - 3) Type 2 — Corrosion barrier and interior structural layer repairs
 - 4) Type 3 — External structural layer repairs
 - 5) Type 4 — Alterations
 - 6) Type 5 — Miscellaneous general external repairs or alterations
 - 7) Type 6 — Thermoplastic repairs
 - 8) Type 7 — Gel coat repairs



NB10-302
Francis Brown to: Robin Hough

02/16/2010 11:23 AM

History: This message has been replied to.

Hi Robin,

I sent the proposed word changes for NB10-0302 to the Subgroup. The change as approved is shown in the attachment.

Regards,
Francis



Approved S3.2(d).docx

(22) 1/2

Proposed by Subcommittee

S3.2

d) When ASME is the original code of construction, replacement parts subject to internal or external pressure shall be fabricated from certified material supplied by an organization having the appropriate ASME Certificate of Authorization. The item shall be inspected and stamped as required by the applicable section of the ASME Code. ~~A completed~~ The R stamp holder shall obtain an ASME Manufacturer's Partial Data Report shall be supplied by the impregnated graphite material manufacturer.

The following was approved by NBIC-Subgroup: 6 Approved
1 disapproved

d) When ASME is the original code of construction, replacement parts subject to internal or external pressure shall be fabricated from certified material supplied by an organization having the appropriate ASME Certificate of Authorization. The item shall be inspected and stamped as required by the applicable section of the ASME Code. The R stamp holder shall obtain an ASME Manufacturer's Partial Data Report supplied by the impregnated graphite material manufacturer.

"Manufacturer" must be retained or the sentence does not make sense.

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NB10-0401

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 NB-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

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(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.

Action Item

NB10-0502

Present Wording

SUPPLEMENT 1

STEAM LOCOMOTIVE FIRETUBE BOILER REPAIRS

S1.1 GENERAL REQUIREMENTS

Proposed Wording

SUPPLEMENT 1

STEAM LOCOMOTIVE FIRETUBE BOILER REPAIRS

S1.1 GENERAL REQUIREMENTS

This part applies to all boilers attached to steam locomotives operating on track gaged at 24" or greater, and all such boilers shall have inspections and repairs performed in accordance with the inspection and repair procedures called out in 49 CFR Part 230.

Rationalization: It is the intent of this wording to require that boilers exceeding a certain size meet a consistent set of requirements regardless of whether they are actively under FRA jurisdiction or not. The wording dictates compliance with the repair and inspection procedures required by the FRA but does not require filing FRA reports if the locomotive is not under active FRA jurisdiction. Reporting requirements are further defined in S1.1.1, which remains unchanged from the 09 addenda.

NBIC Sub-Group Repairs & Alterations-General

Subject: Record Retention

NB-Item number: NB10-0701

<p>Explanation of assignment needed:</p>	<p>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 ALA 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.</p>
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Assigned to: M. Webb, J. Larson

<p>Background:</p>	<p>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-F-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.</p>
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<p>Proposal:</p>	<p>Proposed – This 5.14 is all new text</p>		<p>Rational</p>
<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 on a Form "R" report. item (PRI), and documented on a Form "R" report.</p> <p>b) Records are not limited to depicting or calculating an acceptable design, NDE, PWH-T-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 <u>Manufacturer's Data Report for a minimum of 3 years; a Certificate of Compliance too. Earlier editions were 5-years. The retention of "other records" is not described.</u></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"> 1. 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. 2. 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):</p> <p>"... 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:

1. Section 5.2
2. Section 5.5 and 5.5.2 b)
3. Section 2.2.6
4. 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>Supplementary Sheet, 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>Add here @ 5.2 (c) ————— 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 provided on Form R-2 is <u>not sufficient</u>.</p> <p>c) 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, <u>or as otherwise described when the repair method at 3.3.4.8 is used.</u></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) <u>"R" Certificate Holders</u>. Organizations performing repairs or alterations <u>under the stamp program</u> may register such repairs or alterations with the National Board.</p> <p>b) <u>The "R" Certificate Holder should be aware</u> 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> shall 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, 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>

NBIC Sub-Group Repairs & Alterations-General

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 5.14.1.a).</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>2.2.6.1 WELDER CONTINUITY RECORDS</p> <p>a) The "R" Certificate Holder shall maintain a welding continuity record system and shall make the records available to the Inspector upon request.</p> <p>b) The method of recording welding continuity and the record retention period, meeting the minimum requirements of 5.14, 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 new proposed 2.2.6.1</p>

NBIC Sub-Group Repairs & Alterations-General

Definitions developed to support the proposed revisions:

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?

NBIC Subcommittee R&A Action Block

Subject Liquid Pressure Testing Requirements for Low Toughness Steels

File Number

NB10-0802

Prop. on Pg.

Proposal

Proposed new requirements for liquid pressure testing of low toughness steels

Explanation

Currently, the NBIC, Part 3 R&A provides a general cautionary statement for pressure testing low toughness steels. This proposal provides technical guidance for liquid pressure testing SA 212, SA 517 grades of steel.

Project Manager

Galanes and others (Chair to decide)

Task Group

TG Meeting Date

Negatives

NBIC Subcommittee R&A Action Block

Pressure Testing Low Toughness Steels

The chart below may be used for liquid pressure testing ASME SA 212 (Grade B) and ASME SA 517 (Grades P, F and E) low toughness steels in lieu of conducting notch toughness tests to determine the pre-warming liquid temperature to reduce the risk of brittle fracture. The chart contains minimum pre-warming liquid temperature requirements based on metal thickness of the pressure retaining part.

Table xxx

<u>Minimum Liquid Temperature for Pressure Testing (deg F)</u>	<u>Thickness (inches) of Pressure Retaining Object</u>
60	$t \leq 0.5"$
70	$t > 0.5" \leq 1"$
85	$t > 1" \leq 2"$
100	$t > 2" \leq 4"$
110	$t > 4"$

As an alternative option to pre-warming liquid above 60 deg F for liquid pressure testing of SA 212 and SA 517 steels or steels with known poor toughness, the test pressure can be reduced to 50% of operating pressure commensurate with a longer hold time.

NB10-1501

May 28, 2010

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

Subject: Addition of Figure 2.5.2 in Part 3 of the NBIC

Dear Ms. Secretary:

Proposed Revision

2.5.2 b) When it is impractical or detrimental to postweld heat treat (PWHT) the entire item or band around the item, the following local PWHT method may be performed on spherical or cylindrical pressure retaining items using the time and temperature parameters in the original code of construction and in accordance with a written acceptance by the Inspector and, when required, by the Jurisdiction. Figure 2.5.2 b) provides guidance for nozzle installation. WRC Bulletin 452 Recommended Practices for Local Heating of Welds in Pressure Vessels provides more technical guidance for other joint configurations.

Statement of Need

Most recently, Mr. John Burpee, Chief Boiler, Elevator & Tramway Inspector of the State of Maine reported a repair that was using the wrong dimensions for SB and could have caused overheating of the base metal of the pressure retaining item.

At the National Board Inspection Training Center and during our Inservice Inspection Seminars we receive questions about this paragraph concerning the layout of the nomenclature. It is evident that more information is required to ensure that the requirements of this paragraph are met.

Background

WRC Bulletin 452, Recommended Practices for Local Heating of Welds in Pressure Vessels, provides a technical explanation the local PWHT required by Paragraph 2.5.2 b). In addition the figures in this document define multi-directional limits for our defined nomenclature as well as recommended temperature measurement locations.

Encl.

Respectfully,

Robert E. Ferrell
Senior Staff Engineer
The National Board of Boiler and
Pressure Vessel Inspectors
614 888 8320 x240

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NB 10-1601



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	<u>Proposed Change</u>
5.13.4.1 GUIDE FOR COMPLETING NATIONAL BOARD "R" REPORTS	
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
Xcel Energy | Responsible By Nature
4653 Table Mountain Drive, Golden, Colorado 80403
P: 720.497.2138 C: 303.885.9398 F: 720.497.2117
E: mike.webb@xcelenergy.com

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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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GUIDE FOR COMPLETING THE APPLICATION FOR THE NATIONAL BOARD "R" CERTIFICATION OF AUTHORIZATION	
(1)	Check this box if the applicant is a member of the National Board of Certification of Authorization.
(2)	Check this box if the applicant is a member of the National Board of Certification of Authorization.
(3)	Check this box if the applicant is a member of the National Board of Certification 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. Penmanship, spelling and capitalization of the name are important.
(5)	Supply the exact address used for mailing or stamping as required by the NRIC. For example, Acme Building, Company, Box 123 (NRIC) for that name for the company.
(6, 7)	Are you having a member for an "R" Certificate only or will you also have a joint review for an "R" Certificate? Check box (7) or (8).
(8)	Check this box if the applicant's previous work experience is defined in the NRIC.
(9)	Check this box if the applicant will be performing work only as far as the NRIC. (See NRIC in NRIC, Part 3, Section 2)
(10)	Check this box if the applicant will be performing work as suitable premises retaining limits.
(11)	Check this box if the applicant will perform work on-site or at other premises as defined in the NRIC and will perform physical work in the premises retaining limits except for the "R" Certificate only.
(12)	Check this box if the applicant will perform advanced work as defined in the NRIC and will perform advanced work in the premises retaining limits.
(13)	Check this box if the applicant will perform advanced work on-site or at other premises as defined in the NRIC and will perform advanced work in the premises retaining limits.
(14)	Check this box if the applicant will perform work on-site or at other premises as defined in the NRIC and will perform work in the premises retaining limits which is controlled from the address listed on the Certificate of Authorization.
(15)	Check this box if the applicant will perform work on-site or at other premises as defined in the NRIC and will perform work in the premises retaining limits such as FRP or similar.
(16)	Name of your Authorized Inspection Agency or Over-the-Line Organization.
(17)	When revising your current certificate, an Authorized Inspection Agency representative shall acknowledge completion of this revision by signing this line or providing a letter of guarantee to the Accreditation Department.
(18)	Send a copy of this document 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)	Print the address of the authorized representative that signed line 19.
(22)	City, state, zip code, country, company, street and code of physical address.
(23)	City, state, zip code, country, street and code of mailing address.
(24)	Print the name of the primary primary contact to the National Board.
(25)	Telephone number of the primary contact.
(26)	Print the name of the applicant organization which is voluntarily registered.
(27)	Print the number of the applicant organization which is voluntarily registered.
(28)	Print the city of the applicant organization.
(29)	Print the state of the applicant organization.
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(100)	Print the city of the applicant organization.

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

Request Date: _____ Certificate Expiration Date: _____

Candidate Number: _____

Change from: _____

Change to: _____

Signature of Authorized Company Representative: _____ Title: _____

ID # (found on your last request): _____

THE NATIONAL BOARD OF CERTIFICATION OF AUTHORIZATION

- 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 an 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
 - 105 Chupper Ave.
 - Columbus, OH 43229-1183
 - 614.331.3234 - phone
 - 614.397.1828 - fax
 - fbmrb@nationalboard.org

Note: You should re-submit using the company name that appears on your current Certificate of Authorization when accepting recommended items and completing R-forms until the revised certificate is issued.

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 Service Company of Colorado (PSCo), as Steel Erectors, currently (Name of contractor) N/A (Item 1 on 1)

2. Owner Public Service Company of Colorado (PSCo), as Steel Erectors, currently (Name of owner) (PSCo No. 04120-1)

3. Location of installation 4663 Table Mountain Drive, Golden, CO 80401

4. Unit identification _____ Name of original manufacturer _____ (Type label)

5. Identifying no. _____ (Tag no. on unit) _____ (Manufacturer's) _____ (Serial) _____ (Type label)

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

Original Code of Construction for Item: _____ (Name / number / address) _____ (Address)

Construction Code Used for Repair Performance: _____ (Name / number / address) _____ (Address)

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

8. Description of work: _____ (See explanation form, Item R-1.1 (reverse))

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 Vess. (if applied) _____ NBIC _____ MAWP _____

10. Remarks: _____

CERTIFICATE OF COMPLIANCE
I, Michael V. ... certify that to the best of my knowledge and belief the statements in this report are correct and that all materials, construction, and workmanship on this repair conforms to the National Board Inspection Code. Date December 5, 2011 Certificate of Authorization No. 0000 Signed _____ (Printed name)
I am _____ (Inspector / Supervisor) employed by _____ (Company name)

CERTIFICATE OF INSPECTION
I, Michael V. ... holding a valid Commission issued by the National Board of Boiler and Pressure Vessel Inspectors and currently employed by the jurisdiction of Colorado and employed by Public Service Company of Colorado hereby certify that to the best of my knowledge and belief the work described in this report conforms with the applicable requirements of the National Board Inspection Code. By signing this certificate, neither the undersigned nor any employee under my authority, 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 12/5/11 Signed _____ (Printed name) Commission No. 00175

FORM R-1 REPORT OF REPAIR

In accordance with provisions of the National Board Inspection Code

1. Work performed by Public Service Company of Colorado (PSCo), as Steel Erectors, currently (Name of contractor) N/A (Item 1 on 1)

2. Owner Public Service Company of Colorado (PSCo), as Steel Erectors, currently (Name of owner) (PSCo No. 04120-1)

3. Location of installation 4663 Table Mountain Drive, Golden, CO 80401

4. Unit identification _____ Name of original manufacturer _____ (Type label)

5. Identifying no. _____ (Tag no. on unit) _____ (Manufacturer's) _____ (Serial) _____ (Type label)

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

Original Code of Construction for Item: _____ (Name / number / address) _____ (Address)

Construction Code Used for Repair Performance: _____ (Name / number / address) _____ (Address)

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

8. Description of work: _____ (See explanation form, Item R-1.1 (reverse))

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 Vess. (if applied) _____ NBIC _____ MAWP _____

10. Remarks: _____

CERTIFICATE OF COMPLIANCE
I, Michael V. ... certify that to the best of my knowledge and belief the statements in this report are correct and that all materials, construction, and workmanship on this repair conforms to the National Board Inspection Code. Date December 5, 2011 Certificate of Authorization No. 0000 Signed _____ (Printed name)
I am _____ (Inspector / Supervisor) employed by _____ (Company name)

CERTIFICATE OF INSPECTION
I, Michael V. ... holding a valid Commission issued by the National Board of Boiler and Pressure Vessel Inspectors and currently employed by the jurisdiction of Colorado and employed by Public Service Company of Colorado hereby certify that to the best of my knowledge and belief the work described in this report conforms with the applicable requirements of the National Board Inspection Code. By signing this certificate, neither the undersigned nor any employee under my authority, 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 12/5/11 Signed _____ (Printed name) Commission No. 00175

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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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NB10-0403

Add API 510 Pressure Vessel Inspection Code to Part 3 3.2.6

Background: The API Code was included in the NBIC until the 2003 Addendum.

Statement of Need: Gives Inspectors, inspection agencies, and Jurisdictions another tool/standard to use as a guideline for inspections and repairs and alterations of pressure vessels.