



Pressure Points

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2019 Edition of the Boiler Pressure Vessel Code

On July 1, 2019, ASME published the 2019 Edition of the Boiler Pressure Vessel Code (BPVC). Use of the 2019 Edition is optional until January 1, 2020, at which time it becomes mandatory for certificate holders. During this interim period HSB Codes and Standards Engineering Staff (C&S) will reconcile code changes, provide comprehensive detailed training to clients and inspection personnel and release a publication to all our clients of a detailed summary of changes with potential impact of key items. The HSB 2019 BPVC Synopsis includes all Nuclear Construction/In-service, Non-Nuclear Construction, and Reference BPVCs.

As a preview of the 2019 HSB Synopsis, the C&S Engineering Staff selected the following code change within Section III for our nuclear clients. Unique to the nuclear industry, certificate holders consistently construct to earlier codes of record dependent of the license basis of a nuclear power plant, even though they are still required to meet the latest quality requirements and demonstrate the latest code in an ASME Survey. The most significant impact the Nuclear Certificate holders will face within the 2019 Edition of Section III is the update to their quality programs meeting NQA-1 2015 and controls for computer software.

The NRC approved use of NQA-1 2015 in Regulatory Guide 1.28 Rev 5. Although most of the changes were administrative in nature, some areas of the quality manual may require updates including:

- Qualifications and records for Audit
- Inspection
- Test Personnel



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Other areas with more significant changes include:

- The use of Subpart 2.7 for Software Design Control in Requirements 3 and 11;
- Updates to Requirement 16 to also include additional requirements for Cause Determination, Effectiveness Review and Trend Analysis;
- Amplifying information in Requirement 18 in regard to internal and external audits.

Most of these changes to NQA-1 affect Section III by reference in NCA-4000. Significant changes in NCA-4000 within the 2019 edition also include direct references to the use of Subpart 2.7 in NCA-4134.3 for Software QA requirements, the allowance of commercial grade dedication of software in NCA-4134.7 and the use of Part II of NQA-1 when explicitly directed by Part I. Most ASME nuclear certificate holders already incorporate the additional requirements to meet their regulatory obligations for "safety related components," which might exist in manuals and procedures separate from their ASME activities. For U.S. code users, updates in their ASME QA Manuals will have to account for these code changes. For international users, these new code additions may have to be developed and incorporated into their ASME program if a "safety related" program does not already exist.

The 2019 HSB Synopsis has documented over 1000 updates across all Sections of the Boiler Pressure Vessel Code. For additional information or questions please contact our Engineering Codes and Standards Staff at TechSupport@hsb.com.

Manufacturing of DOT / TC Cylinders / UN Portables

Whether you are interested in or currently acting on the expanding manufacturing opportunities for transportation tanks and cylinders to the United States, Canada and Europe, Hartford Steam Boiler (HSB) is taking an exciting new approach to the global business for transportation.

HSB is an approved Independent Inspection Agency (IIA) which allows us to partner with Cylinder manufacturers around the world to perform Department of Transportation (DOT) and Transport Canada (TC) inspections and assist in a consistent path to certification. DOT and Transport Canada regulations require inspections to be performed by an approved IIA for manufacturing outside of the United States and Canada.

HSB is an approved Designated Approval Agency (DAA) and provides inspection services for DOT through the Pipeline and Hazardous Materials Safety Administration (PHMSA), which regulates the transport of hazardous materials within the United States. For the transport of dangerous goods with Canada, HSB provides services for Transport Canada (TC) through the Dangerous Goods Directive.

Hartford Steam Boiler has the recognized authority to apply the regulation of 49 CFR for DOT and CSA B339 for Transport Canada. The safety standards developed by Department of Transportation and Transport Canada are recognized and utilized globally for the construction of cylinders for the containment of various gases, cryogenic liquids and hazardous chemical material. Application of the DOT / TC process allows the manufacturer to set a high level of consistent quality for the fabrication of cylinders.

Cargo Tanks

HSB performs design review and verification of cargo tanks to regulatory requirements or a specific design specification (special permits).

HSB can perform:

- New fabrication inspections and testing
- Repaired Cargo tank inspections and testing (Repairs to 49 CFR / NBIC + Retesting of Portable Tanks in accordance with the 49 CFR Part 180.605
- Periodic in-service inspection (internal and external visual inspection), Cylinders & Portable Tanks
- Leakage and pressure tests, Cylinders & Portable Tanks
- Thickness tests
- Lining Inspections

Summary of Services for Department of Transportation (DOT) and Transport Canada (TC)

Department of Transportation (DOT)	Transport Canada (TC)
DOT Design Review	TC Design Review
DOT Prototype Review	TC Prototype Review
Technical Assistance	Technical Assistance
New Manufacturer Preparation for Pre-Survey	New Manufacturer for Pre-Survey
Pre-Survey	Pre-Survey
Approval Survey	Approval Survey
Fitness Inspections	Fitness Inspections
Cylinder Inspections	Cylinder Inspections
Retesting / Requalification Approval	Retesting /Requalification Approval

For more information on Department of Transportation and Transport Canada services, please contact us at GetInfo@hsb.com.

Welding Backing Strips used for Section VIII Division 1 Construction

An interesting interpretation was recently issued by ASME concerning backing strips used for Section VIII, Division 1 construction. The interpretation confirms that documentation and marking requirements stated in UG-93 apply for the backing strip material. In addition, this interpretation confirms a traceability system is required to ensure that the backing strips are of weldable quality.

It was issued under Interpretation # BPV VIII-1-19-14:

Standard Designation: BPV Section VIII Div 1
Edition/Addenda: 2015
Para./Fig./Table No: UG-4, UG-77, UG-93, UW-5(b), UG-90(b), Mandatory A [Sic]
Subject Description: Weld Backing Strip Material and Traceability
Date Issued: 07/11/2019
Record Number: 16-2587
Interpretation Number: BPV VIII-1-19-14

Question(s) and Reply(ies)

Question 1: Is it required to obtain the documentation stated in UG-93(a)(1) for weld backing strips made from plate?

Reply 1: Yes.

Question 2: Is it required that a traceability system be in place to ensure that weld backing strips made from plate are of weldable quality?

Reply 2: Yes

UG-77 contains the requirements for material identification and maintaining traceability during fabrication. Based on this interpretation, these requirements in UG-77 apply to backing strip material made from plate. If the product form is cut, the required markings need to be transferred onto the backing strips to maintain traceability. This traceability system needs to also validate that the backing strip material is of weldable quality.

While the requirements stated above apply to weld backing strips of all materials found in Section VIII Division 1, Code users should be reminded that additional requirements do exist for backing strips made from UCS materials. These requirements can be found in UCS-5(b).

If you have any questions concerning this interpretation or any other question, please contact the Codes & Standards Team at techsupport@hsb.com.



2019 U.S. ASME Edition Non-Nuclear Code Update One-Day Seminar

Location	Dates	Venue
Houston, TX	December 9, 2019	Hyatt Place Houston Bush Airport, 300 Ronan Park Place, Houston, TX
Madison, WI	December 11, 2019	Crowne Plaza, 4202 East Washington Ave., Madison, WI
Philadelphia, PA	December 13, 2019	The Clarion Hotel Philadelphia Int'l Airport, 76 Industrial Hwy, Essington, PA

Material	Discussion Points
Section I	Rules for Construction of Power Boilers
Section II	Materials
Section V	Non Destructive Examination
Section VIII, Division 1	Rules for Construction of Pressure Vessels
Section VIII, Division 2	Alternative Rules For Construction of Pressure Vessels
Section IX	Welding, Brazing and Fusing Qualifications

2019 International ASME Edition Non-Nuclear Code Update One-Day Seminar

Location	Dates	Venue
Budapest, Hungary	December 9, 2019	Corinthia Budapest, Erzsébet Körút 43-49, Budapest H-1073, Hungary

2019 U.S. and International Webinars

Location	Dates	Topic
Brazil	November 14, 2019	Considerations When Using ISO 9712 for ASME Construction (Portuguese)
Latin America	November 21, 2019	Considerations When Using ISO 9712 for ASME Construction (Spanish)
Latin America	December 4, 2019	RT vs UT
Brazil	December 11, 2019	Section VIII 2019 Edition Code Synopsis (Portuguese)
Latin America	December 18, 2019	Section VIII 2019 Edition Code Synopsis (Spanish)

Seminars: Click here to Register or call 860-722-5061

Webinars: Email GetInfo@hsb.com

We invite you to join us at ADIPEC 2019 sponsored by ADNOC. Hartford Steam Boiler will be exhibiting in Hall 7, Stand No. 7632 from November 11 - 14, 2019.

The graphic is a promotional banner for the ADIPEC 2019 exhibition. It features the ADIPEC logo (a sunburst) and the ADNOC logo (a stylized 'A' with a wave) in the top left. The text reads: 'Abu Dhabi International Petroleum Exhibition & Conference 11 - 14 November 2019'. Below this, it says 'VISIT OUR STAND' in large white letters. Underneath, it specifies 'STAND NO. 7632' and 'HALL NO. 7'. In the bottom right corner, there are logos for 'Hartford Steam Boiler' and 'Munich RE'. At the very bottom, there is a dark blue bar with the website 'www.adipec.com', the hashtag '#ADIPEC #ADIPEC2019', and social media icons for Facebook, LinkedIn, Twitter, and Instagram.

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