

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

**ASME CODE WEEK SUMMARY REPORT
Feb. 5-10, 2012 -- Houston, Texas**

ASME Committee/Subcommittee or WG: ASME B31.1 Power Piping Code

Submitted by: Robert Schueler

Record Number: 03-1530

Summary of Issue: B31.1: Para. 136.1.2 Verification by Owner's Inspector. This revision will be published in the 2012 Edition to the Code and stems from the need to be more explicit in defining the verification of compliance by the Owner's Inspectors as required by the Code and shown in Paragraph 136.1.2. This paragraph refers to fabricated piping, both BEP and NBEP, which is manufactured and installed under the rules of the ASME B31.1 Code.

Current Paragraph:	Proposed New Paragraph:
<p>136.1.1 General. This Code distinguishes between “examination” and “inspection.” Inspection is the responsibility of the Owner and may be performed by employees of the Owner or a party authorized by the Owner, except for the inspections required by para. 136.2. Prior to initial operation, a piping installation shall be inspected to assure compliance with the engineering design and with the material, fabrication, assembly, examination, and test requirements of this Code.</p> <p>136.1.2 Verification of Compliance. Compliance with the requirements of this Code shall be verified by an Authorized Inspector when a Code stamp is required by Section I of the Boiler and Pressure Vessel Code. The rules of this Code and the quality control system requirements of Appendix A-300 of Section I of the Boiler and Pressure Vessel Code shall apply. The quality control system requirements are shown in Appendix J of this Code. The duty of the inspector shall be defined in PG-90, Section I, of the Boiler and Pressure Vessel Code. Data Report Forms are included in the Appendix of ASME Section I for use in developing the necessary inspection records. The inspector shall assure himself/herself that the piping has been constructed in accordance with the applicable requirements of this Code.</p>	<p>136.1.1 General. Inspection is the responsibility of the Owner and may be performed by employees of the Owner or a party authorized by the Owner, except for the inspections required by para. 136.2.</p> <p>136.1.2 Verification of Compliance. Prior to initial operation, a piping installation shall be inspected to ensure that the piping has been constructed in accordance with the design, material, fabrication, assembly, examination and testing requirements of this Code.</p> <p>(a) For Boiler External Piping (BEP) the Authorized Inspector shall verify, in accordance with PG-90 of Section I of the Boiler and Pressure Vessel Code, compliance with the requirements of this Code when a Code stamp for Boiler External Piping (BEP) is to be applied. The quality control system requirements of Appendix A-300 of Section I of the ASME Boiler and Pressure Vessel Code and Appendix J of this Code shall apply.</p> <p>(b) For Non-Boiler External Piping (NBEP) the Owner shall ensure that the design and construction documents and the requirements of this Code have been complied with in accordance with the Owner’s requirements.</p>

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

**ASME CODE WEEK SUMMARY REPORT
Feb. 5-10, 2012 -- Houston, Texas**

ASME Committee/Subcommittee or WG: ASME Section I Standards Committee

Submitted by: Robert Schueler

Record Number: 10-2030

Summary of Issue:

Section I, PFT-52 Fusible Plugs. This item was reaffirmed as second consideration to delete PFT-52. Annul Code Case paralleling this item under 11-1497 six months after publication of this item.

PFT-52 FUSIBLE PLUGS

~~Hand fired boilers shall be equipped with fusible plugs in accordance with the requirements of A-19 through A-21 of Nonmandatory Appendix A.~~

Comments:

Based on the discussion at the Committee meeting, it was the majority belief that fusible plugs were a warning device and not a safety device. Requiring them provided a false sense of security to the user.

Although PFT-52 will be deleted, the nonmandatory rules for fusible plugs in the Appendix (A 19-21) will remain.

Record Number: 11-2236

Summary of Issue:

BPV I 2007 Edition - 2009 Addenda Inquiry, Table A-360 Use of B31.1 Code

Inquiry

Q - In accordance with the Section I rules of the 2007 Edition - 2009 Addenda, is the use of the Power Piping Code, B31.1, limited to the 2007 Edition only of that Code?

R - Yes.

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

**ASME CODE WEEK SUMMARY REPORT
Feb. 5-10, 2012 -- Houston, Texas**

ASME Committee/Subcommittee or WG: Section III

Submitted by: Chuck Withers

Record Number:

Summary of Issue: For information only

- Work continues in revising Section III Subsection NCA to incorporate all general requirements applicable to all Section III Divisions into a new "GR" Section. A final draft and proposals are to be sent to all Section III Divisions and Section III, SGGR members for review and comment after the May 2012 meeting. Final approval for this new section must be before the November 2012 meeting in order to be incorporated into the 2013 Code Edition.
- NRC is presently reviewing ASME Section III and XI, 2009 through 2011 Edition/Addenda, for a proposed rule-making to be published mid-2012.
- NRC has completed its review of combined operating licenses for Vogtle 3 & 4 and VC Summer 3 & 4 both AP 1000 designs. US Government has approved construction for Vogtle 3 & 4 and approval for VC Summer should be soon.
- CC N755 Rev 2 for High Density Polyethylene Pipe is now split between Section III and Section XI requirements. Section XI has been approved but Section III continues to work on issues to address NDE requirements, electro-fusion and saddle fusion methods for attachments to piping.
- The new ASME Certification Mark continues to be discussed in Special Working Group New Advanced Light Water Construction issues for addressing Regulatory Requirements for issuing combined operating licenses for a specific Code Edition/Addenda.
- Section III is looking to incorporate the requirements specified in Appendix UHX for heat exchangers outlined in Section VIII, Div. 1 and removing asbestos gaskets from the Code.

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

**ASME CODE WEEK SUMMARY REPORT
Feb. 5-10, 2012 -- Houston, Texas**

ASME Committee/Subcommittee or WG: Board on Conformity Assessment

Submitted by: F. Brown

Item Number: 12-13; Proposed Program for the Accreditation of Organizations Certifying Bolting Specialists

It appears this may become a training program. A proposal will be presented to the Board on S & C Operations later this month.

ASME Committee/Subcommittee or WG: Committee on Conformity Assessment Requirements

Submitted by: F. Brown

Item Number:

This committee is to develop new conformity assessment requirements for reference by the book sections. The committee is to also assist in the separation of conformity assessments from technical requirements in the code book sections. The ASME Standard, CA-1, had been approved and will be published in the near future. Note, CA-1 is not an ANSI Standard.

ASME Committee/Subcommittee or WG: TG on Section VIII, Div. 1 Scope

Submitted by: D. Cook & F. Brown

Item Number: None

An initial tentative agreement was reached during the meeting in Houston.

- Minimum pressure of 15 psi.
- Maximum pressure of 3000 psi.
- Pressure times volume value to be determined. The PV value is related to the energy stored in the vessel. The PV value is to be based on the probability of injury to nearby personnel. This value is expected to be low because injury of nearby personnel is likely if the vessel ruptures.

The intent is to remove exemptions from the Code for which there are no engineering justifications.

This proposal will eliminate exemptions from Code rules for a number of vessels, such as water tanks.

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

**ASME CODE WEEK SUMMARY REPORT
Feb. 5-10, 2012 -- Houston, Texas**

ASME Committee/Subcommittee or WG: BPV Section V Standards Committee

Submitted by: J McGimpsey

Record Number: 13-07.5

Summary of Issue:

ASME Non-Destructive Examination (NDE) Personnel Program update was given and the UT examination in the Beta testing phase with a September 2012 implementation. The program is looking for individuals to write questions for the examinations and the former ASNT Program manager has been hired by ASME.

ASME Committee/Subcommittee or WG: ASME BPV XII SGGP TRANSPORT TANKS

Submitted by: J. MCGIMPSEY

Record Number: 11-1576

Summary of Issue:

Existing language in TG-440(c) and TP-2 that references the use of the National Board stamp is found to be in conflict with ASME's Codes and Standards Policy 59(b). The proposal is to delete this language.

ASME Committee/Subcommittee or WG: ASME BPV XII COMMITTEE TRANSPORT TANKS

Submitted by: J. MCGIMPSEY

Record Number: 10-1754 Section XII - Manufacturer's Data report

Summary of Issue:

The current requirement for recording an Authorized Inspector's National Board Commission and endorsement on a Manufacturer's Data Report (MDR) was discussed and the item will be updated and submitted for ballot sometime in February 2012. The MDR and Guide will be revised to include only the Inspectors signature, National Board commission number and endorsement.

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

**ASME CODE WEEK SUMMARY REPORT
Feb. 5-10, 2012 -- Houston, Texas**

ASME Committee/Subcommittee or WG: BPV SG Section XII Fabrication, Inspection and Continued Service

Submitted by: J McGimpsey

Record Number: 11-422

Summary of Issue:

Add Jurisdictional markings in the Modal Appendices. This item was opened to add Jurisdictional markings to the applicable modal appendices. No work on this item has been done to date.

This item could affect the Canadian provinces.

ASME Committee/Subcommittee or WG: Special Working Group on Non Metallic Materials

Submitted by: F. Brown

Item Number: None

BPTCS is planning to form a new committee on non-metallic materials. This new committee will consist of members from the B31 piping committees and the BPV committees. The BPTCS is scheduled to vote on the new committee during its meeting in March.

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

**ASME CODE WEEK SUMMARY REPORT
Feb. 5-10, 2012 -- Houston, Texas**

ASME Committee/Subcommittee or WG: Section IV

Submitted by: Terry Parks

Record Number: 09-32

Summary of Issue: **This item has the potential to have far-reaching consequences for jurisdictions.**

Revise Section IV to include a new Certificate of Authorization for Miniature boilers using the HM designator.

Section IV received a request from a European Manufacturer of hot water heating boilers, requesting creation of a new Certificate of Authorization category for Miniature Heating Boilers. The request is based on the precedent set by the Section VIII UM Certificate, as well as the H (cast iron) and H (cast aluminum) Certificates in Section IV. It would allow manufacture of the new HM category boilers without oversight by an Authorized Inspector, utilizing instead a Certified Individual.

In addition to the precedent set above, the key point in the justification for this new accreditation category is the consideration for the hazard potential. New paragraph HG-515.5 limits the product of heat input, volume and pressure values, and limits this application to hot water, excluding steam, to further limit the hazard potential.

Contrary to the previous paragraph, the hazard risk-potential value in the formula is so high that many Section IV manufacturers of heating boilers may choose to manufacture what they are currently producing under the HM designator which would allow the use of a Certified Individual from the manufacturer to make all of the acceptance inspections and eliminate the Authorized Inspector for most Section IV heating and supply boilers.

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

**ASME CODE WEEK SUMMARY REPORT
Feb. 5-10, 2012 -- Houston, Texas**

ASME Committee/Subcommittee or WG: Section IV

Submitted by: Terry Parks

Record Number: 11-347

Summary of Issue:

BPV IV to develop a potential Code Change to address the relationship of secondary heat exchangers used in conjunction with Section IV items.

As per the last Summary Report from November 2011 Code Week the Project Manager of this item would like input from the jurisdictions concerning the requirements for heat exchangers that are an integral part of the boiler such as feed water economizers, etc. If you would like to submit a comment, send it to me at the National Board and I will ensure that the Project Manager receives it.

ASME Committee/Subcommittee or WG: Section IV

Submitted by: Terry Parks

Record Number: 11-796

Summary of Issue: Code Case to allow a single safety relief valve, a single pressure/altitude gage and a single drain valve for sectional cast iron and cast aluminum hot water heating boilers with multiple gas trains and/or burners.

This Code Case received several negative votes and comments from members of the Conference Committee when it went out for ballot. Section IV Standards Committee closed this item without further action.

However, Section IV passed an Interpretation to allow a sectional cast iron or cast aluminum hot water boilers with multiple gas trains and/or burners to utilize a single safety relief valve, a single pressure/altitude gage, and a single drain valve provided:

1. The safety relief valve meets the requirements in HG-400.2.
2. The pressure/altitude gage reading represents the same pressure in each section as required by HG-611.
3. The single drain valve meets the requirements in HG-715 and drains all the sections when opened.
4. All other requirements of Section IV are met.

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

**ASME CODE WEEK SUMMARY REPORT
Feb. 5-10, 2012 -- Houston, Texas**

ASME Committee/Subcommittee or WG: Section IV

Submitted by: Terry Parks

Record Number: 08-1588

Summary of Issue:

Section IV - Code Case to allow the use of polymer ASTM D4349 grade PPE410G30A4034 and PPE210G30A50663 for the construction of coil type heating boilers

A European boiler manufacturer has submitted the proposed code case for section IV consideration based on the fact that they have safely constructed approximately 4.600.000 heating boilers according to the European Directive 97/23 EG, and 80.000 heating boilers according to the ASME Code Section IV, and since 2004 they have constructed more than 1.800.000 coil type heating boilers with plastic casings and headers for the European and Asian market. Since there is no mandatory requirement for such design, they have developed technology in order to provide efficient heating boilers which are safe and reliable.

This item is proceeding forward for second consideration ballot. If this passes Section IV and is approved by the BCS committee you might eventually see in your jurisdictions Section IV boilers built to this Code Case.

Record Number: 08-993

Summary of Issue: Currently paragraphs HG-708 and HLW-808 allow the HLW manufacturer to construct storage tanks that exceed the capacity limitation of HLW-101.2(c) which is 120 gallons to conform only to the rules of Section IV, Part HLW with no size limitation, without addressing the requirements of Section VIII, Div. 1, or Section X. The problem arises for jurisdictions that are obligated to have in-service inspections. Tanks having large capacities in accordance with Section IV Part HLW are not required to have inspection openings; therefore the tank internal conditions cannot easily be assessed. Additionally, Part HLW does not address design concerns associated with primary and secondary stresses generated from loads caused by weight, nozzles, saddles, attached piping systems, thermal expansion, wind, vibration, and seismic activity.

This item has been kicked around by Section IV since 2008. It was requested by Keith Rudolf the member from Hawaii. It has met a lot of resistance from one particular HLW manufacturer and has been revised many times. I believe the current proposal has the best chance of passing. In order for this to happen, the members of the Conference Committee should comment in support of this item for Section IV Standards Committee to know that it is not only Mr. Rudolf that wants this change.

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

**ASME CODE WEEK SUMMARY REPORT
Feb. 5-10, 2012 -- Houston, Texas**

ASME Committee/Subcommittee or WG: Section VIII, Divisions 1, 2 and 3; Establishing Governing Code Edition and Addenda

Submitted by: Ken Lau & Vic Bogosian

Record Number: BC09-1148

Summary of Issue:

The approved changes in the Code will revise the Foreword, Referenced Standards, and add new mandatory appendix addressing rules for establishing the governing Code edition and addenda for new construction and parts.

This is an item linked to similar, but not identical, proposals revising Sections I, IV, X and XII. The linked records (BC09-1131, BC09-1235 and BC10-919 respectively) have been approved by Section I, IV and X Committees but BC09-1153 is still under consideration by Section XII.

The changes in the Code will include:

Modification of Division 1, paragraph U-3(a), addition of Mandatory Appendix XX, addition of definition of "construction" in Appendix 3

Modification of Division 2, addition of Annex 2.XX

Modification of Division 3, paragraph KG-140(b), modification of paragraph KG-101, and addition of Mandatory Appendix XX

The content of the new Appendix will include the following:

- After code revisions are approved by ASME, they may be used beginning with the date of issuance shown on the Code.
- Except as specifically noted below, revisions become mandatory six months after the date of issuance.
- Code Cases are permissible and may be used on the date of approval by ASME.
- Only Code Cases that are specifically identified as being applicable to this Section may be used.
- When a Code Case is applied, only the latest revision may be used.
- Code Cases that have been incorporated into this Section or have been annulled shall not be used.
- Changes in the Code and Code Cases that have been published prior to completion of the pressure vessel or part may include details critical to the intended service conditions of the pressure vessel and thus, should be considered by the Manufacturer. Application of such changes shall be a matter of agreement between the Manufacturer and the user. Specific incorporated Code provisions from later editions which have been applied to construction shall be noted in the "Remarks" section of the Manufacturer's Data Report.

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

**ASME CODE WEEK SUMMARY REPORT
Feb. 5-10, 2012 -- Houston, Texas**

- The Manufacturer of any complete vessel or part has the responsibility of assuring through proper Code certification that all work performed complies with the effective Code Edition that is to be stamped with the ASME certification mark required by this Section (See UG-120).
- Except as provided below, the Code Edition used for construction of a pressure vessel and parts shall be either the Edition that is mandatory on the date the pressure vessel or part is contracted for by the Manufacturer, or a published Edition issued by ASME prior to the contract date which is not yet mandatory.
 - Existing pressure parts that have been stamped and certified to an earlier or later Edition than those established for construction of the pressure vessel or part, and that have never been placed in service, (i.e. placed in stock for future use) may be used provided they are acceptable to the Manufacturer as described above.
 - It is permitted to use overpressure protection requirements from the Edition in effect when the vessel is placed in service.

This item was reported previously and failed to get approval mainly because of concerns raised relative to the possibility of cherry-picking of rules when using different Code editions. The proposal is a compromise but there may still be a possibility of confusion when implemented.

The item was approved with one negative during the BPV VIII committee meeting and will be subject to recirculation letter ballot.

These changes in the Code may be helpful to some Code users, especially for new construction. For post construction, we may find issues when a partial shell replacement or a new bundle is inserted into existing Section VIII vessel. This was discussed during the Code Committee meetings but was not included in the Code because the replacement parts have been addressed in previous versions of NBIC and also in PCC Codes.

Jurisdiction members as well as owners should monitor the implementation when the proposed Code changes are introduced likely in the 2013 Code edition.

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

**ASME CODE WEEK SUMMARY REPORT
Feb. 5-10, 2012 -- Houston, Texas**

ASME Committee/Subcommittee or WG: Section VIII, Division 1; Appendix M; M-6

Submitted by: Ken Lau & Vic Bogosian

Record Number: BC11-1113

Summary of Issue:

Long-standing industry practice is to limit the pressure drop in the inlet of the PRV as a method to help prevent PRV chatter. At present, under paragraph M-6(a), a total pressure drop not exceeding 3% of the valve set pressure is allowed.

The flow to a PRV and the response of the PRV to pressures can, in reality, be very complex and dynamic as illustrated by several published studies. Phenomena other than PRV inlet losses may result in chatter. This item was initiated partly as a result of proposed changes to the API 520 document and a background paper that explores the background of the 3% inlet loss criteria and describes an engineering analysis for assessing existing PRVs that have more than 3% inlet pressure drop.

The revised paragraph M-6 of Appendix M will allow the inlet loss to be above 3% when an engineering analysis is performed that indicates a higher value is acceptable.

Even though Appendix M is a non-mandatory appendix, the ASME Code Committee has provided this information as a good engineering practice, and in some instances, jurisdictions may choose to mandate these requirements. This revision will allow users to obtain relief in some instances, where justified by analysis, but it does not relieve the user from the requirements of UG-125(a)(1), (2) or (3).

The item was approved with two negatives and three abstains partly because the wording “engineering analysis” was not clearly defined and that may allow abuse in cases where a proper engineering analysis may not have been performed to exceed the existing rule of 3% maximum pressure drop.

This Code change may have implications because the long practice was not to allow inlet loss to exceed 3%. After this change is published, there is a possibility of an average code user not conducting a proper “engineering analysis” a term which could be subject to misinterpretation or abuse similar to what we commonly see in the application of U-2(g).

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

**ASME CODE WEEK SUMMARY REPORT
Feb. 5-10, 2012 -- Houston, Texas**

ASME Committee/Subcommittee or WG: Section VIII, Divisions 1 and 2; Sections UHX-12, 13, 14 and 4.18 – Definition of “Pressure-only” and “Pressure-Thermal” Loading Cases

Submitted by: Ken Lau & Vic Bogosian

Record Number: BC06-886

Summary of Issue:

The current wording in Section VIII Division 1 Part UHX and Section VIII Division 2 Part 4.18 uses only one set of arbitrary pressure-thermal loading cases for loading cases 4 through 7. This proposal eliminates this arbitrary constraint and replaces it with multiple actual pressure-thermal operating conditions.

By using the actual operating pressures and temperatures, the designer can more realistically determine the controlling conditions for each operating loading case under consideration, including but not be limited to, normal operating, startup, shutdown, cleaning, and upset conditions. The pressure definitions have been changed to include maximum and minimum design and operating pressures that may be encountered in a particular design.

When published in the 2013 Edition of the ASME BPV Code, this item will allow the more precise definition of shell and tube heat exchanger design conditions.

The item has been approved during the SG-HTE meeting and BPV VIII Standards Committee meeting.

In addition to this item that design and operating conditions need to be clearly specified in the design and analyzed in calculations, we understand the SG-HTE plans to open a new item and propose the new form of data report for heat exchangers. This new supplemental page of Manufacturer’s Data Report should capture all design and operating conditions at one place. This information is important for any future alteration of heat exchanger, and it will allow the owner to properly evaluate the changes in design and operating conditions.