

CODE CASES

2017

ASME Boiler and
Pressure Vessel Code
An International Code

**Boilers and
Pressure Vessels**

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AN INTERNATIONAL CODE

2017 ASME Boiler & Pressure Vessel Code

2017 Edition

July 1, 2017

CODE CASES

Boilers and Pressure Vessels



The American Society of
Mechanical Engineers

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^{*} The 2015 Edition of Section III was the last edition in which Section III, Division 1, Subsection NH, *Class 1 Components in Elevated Temperature Service*, was published. The requirements located within Subsection NH were moved to Section III, Division 5, Subsection HB, Subpart B for the elevated temperature construction of Class A components.

INTERPRETATIONS

Interpretations are issued in real time in ASME's Interpretations Database at <http://go.asme.org/Interpretations>. Historical BPVC interpretations may also be found in the Database.

CODE CASES

The Boiler and Pressure Vessel Code committees meet regularly to consider proposed additions and revisions to the Code and to formulate Cases to clarify the intent of existing requirements or provide, when the need is urgent, rules for materials or constructions not covered by existing Code rules. Those Cases that have been adopted will appear in the appropriate 2017 Code Cases book: "Boilers and Pressure Vessels" or "Nuclear Components." Supplements will be sent or made available automatically to the purchasers of the Code Cases books up to the publication of the 2019 Code.

SUMMARY OF CHANGES

The 2017 Edition of the Code Cases includes Code Case actions published through Supplement 7 to the 2015 Edition.

Changes given below are identified on the pages by a margin note, **(17)**, placed next to the affected area. Errata, if any, are identified by a margin note, **(E)**, placed next to the affected area.

| <i>Page</i> | <i>Location</i> | <i>Change (Record Number)</i> |
|-------------|---|-------------------------------|
| iv | List of Sections | Updated |
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| 1 (1993-7) | 1993-7 | Revised (16-332) |
| 1 (2481-1) | 2481-1 | Revised (14-1433) |
| 1 (2485) | 2485 | Annulled (14-2355) |
| 1 (2568-1) | 2568-1 | Revised (16-345) |
| 1 (2650) | 2650 | Annulled (16-1776) |
| 1 (2702-3) | 2702-3 | Revised (16-218) |
| 1 (2869) | 2869 | Added (16-1048) |
| 1 (2870) | 2870 | Added (16-1049) |
| 1 (2871) | 2871 | Added (16-245) |
| 1 (2872) | 2872 | Added (16-246) |
| 1 (2873) | 2873 | Added (16-1938) |
| 1 (2874) | 2874 | Added (16-2068) |
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| 1 (2876) | 2876 | Added (16-224) |
| 1 (2877) | 2877 | Added (15-133) |
| 1 (2878) | 2878 | Added (15-584) |
| 1 (2879) | 2879 | Added (13-261) |

NOTE: Cases 2545 (09-1827) and 2846 (16-1677) have been incorporated into their respective Sections of the 2017 Edition and will be annulled six months after publication.

LIST OF CHANGES IN RECORD NUMBER ORDER

| Record Number | Change |
|---------------|---|
| 09-1827 | Incorporated Case 2545-1 into Section IV and will annul Case 2545-1 six months after publication of the 2017 edition. |
| 13-261 | Adopted new Case 2879 for ASTM A841/A841M-13 Grade G Class 9 (7% Ni TMCP plate) for use in cryogenic and near RT transport tanks. |
| 14-1433 | Revised Case 2481 with extension of the maximum design temperature from 800°F to 1,200°F. Tables 4 and Table 4M Maximum Allowable Stress Values are extended to 1,200°F and 650°C, respectively. |
| 14-2355 | Annulled Case 2485, which permits a drum for a HRSG to be designed and constructed to Section VIII, Division 2 Edition 2004, 2005 Addenda and installed on a Section I system. Considering that Section VIII, Division 2 has been rewritten and the incorporation of Code Case 2559-1 into Section I, Part PA (14-2261), this Case is no longer needed. |
| 15-133 | Adopted new Case 2877 on welded austenitic stainless steel tubing with a textured surface. |
| 15-584 | Adopted new Case 2878 to address personnel qualified prior to the introduction of Section XII. |
| 16-218 | Revised Case 2702-2 to allow for newly written ASTM B983 to be included in the Code Case replacing SB-622 and deleted “seamless” in title. |
| 16-224 | Adopted new Case 2876 to allow markings be placed on alternate location due to insufficient space on code item. |
| 16-245 | Adopted new Case 2871 to allow the use of alloy steel plates in thickness less than $\frac{3}{32}$ in. (2.5 mm) as currently required under HF-301.1(c). |
| 16-246 | Adopted new Case 2872 to allow the use of alloy steel plates in thickness less than $\frac{1}{8}$ in. (3 mm) as currently required under HLW-302. |
| 16-332 | Revised Case 1993-6 for allowable stresses in bolting and added SI values. |
| 16-345 | Revised Case 2485 to clarify the term intermediate header and to replace the phrase “hot water end of the intermediate header” with “header between the primary and secondary heat exchangers.” |
| 16-1048 | Adopted new Case 2869 to allow the use of stainless steel material with a minimum thickness of 0.0157 in. (0.4 mm) for secondary flue gas under Section IV. |
| 16-1049 | Adopted new Case 2870 to allow the use of stainless steel material with a minimum thickness of 0.024 in. (0.6 mm) for hot water heating boilers under Section IV. |
| 16-1677 | Incorporated Case 2846 into Section IX and will annul Case 2846 six months after publication of the 2017 edition. |
| 16-1776 | Annulled Case 2650 after incorporation into Section VIII, Division 3. |
| 16-1938 | Adopted new Case 2873 to allow the use of a single drain valve on the lowest position of a modular boiler. |
| 16-1942 | Adopted new Case 2875 to allow the use of UNS N08904 (904L) austenitic stainless steel plate, sheet, strip in the manufacture of Part HLW water heaters and storage tanks. |
| 16-2068 | Adopted new Case 2874 to certify modular hot water boilers as a single boiler. |

CROSS-REFERENCING AND STYLISTIC CHANGES IN THE BOILER AND PRESSURE VESSEL CODE

There have been structural and stylistic changes to BPVC, starting with the 2011 Addenda, that should be noted to aid navigating the contents. The following is an overview of the changes:

Subparagraph Breakdowns/Nested Lists Hierarchy

- First-level breakdowns are designated as (a), (b), (c), etc., as in the past.
- Second-level breakdowns are designated as (1), (2), (3), etc., as in the past.
- Third-level breakdowns are now designated as (-a), (-b), (-c), etc.
- Fourth-level breakdowns are now designated as (-1), (-2), (-3), etc.
- Fifth-level breakdowns are now designated as (+a), (+b), (+c), etc.
- Sixth-level breakdowns are now designated as (+1), (+2), etc.

Footnotes

With the exception of those included in the front matter (roman-numbered pages), all footnotes are treated as endnotes. The endnotes are referenced in numeric order and appear at the end of each BPVC section/subsection.

Submittal of Technical Inquiries to the Boiler and Pressure Vessel Standards Committees

Submittal of Technical Inquiries to the Boiler and Pressure Vessel Standards Committees has been moved to the front matter. This information now appears in all Boiler Code Sections (except for Code Case books).

Cross-References

It is our intention to establish cross-reference link functionality in the current edition and moving forward. To facilitate this, cross-reference style has changed. Cross-references within a subsection or subarticle will not include the designator/identifier of that subsection/subarticle. Examples follow:

- *(Sub-)Paragraph Cross-References.* The cross-references to subparagraph breakdowns will follow the hierarchy of the designators under which the breakdown appears.
 - If subparagraph (-a) appears in X.1(c)(1) and is referenced in X.1(c)(1), it will be referenced as (-a).
 - If subparagraph (-a) appears in X.1(c)(1) but is referenced in X.1(c)(2), it will be referenced as (1)(-a).
 - If subparagraph (-a) appears in X.1(c)(1) but is referenced in X.1(e)(1), it will be referenced as (c)(1)(-a).
 - If subparagraph (-a) appears in X.1(c)(1) but is referenced in X.2(c)(2), it will be referenced as X.1(c)(1)(-a).
- *Equation Cross-References.* The cross-references to equations will follow the same logic. For example, if eq. (1) appears in X.1(a)(1) but is referenced in X.1(b), it will be referenced as eq. (a)(1)(1). If eq. (1) appears in X.1(a)(1) but is referenced in a different subsection/subarticle/paragraph, it will be referenced as eq. X.1(a)(1)(1).

NOTES TO NUMERIC INDEX

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- All Code Cases remain available for use until annulled by the ASME Boiler and Pressure Vessel Standards Committees. Code Cases will be reviewed routinely for possible incorporation into the body of the ASME Boiler and Pressure Vessel Code.
- Supplement 7 is the last supplement published for the 2015 edition. Supplement 8 is incorporated into the 2017 edition.
- Cases may be used beginning with the date of approval shown on the Case.
- Annulled Cases will remain in the Numeric Index and Subject Index until the next Edition, at which time they will be deleted.
- Newly revised cases supersede previous versions. Previous code case number will be added in the "Annulled Date/Supersedes" column next to the newly revised code case.
- The digit following a Case Number is used to indicate the number of times a Case has been revised.
- The Cases are arranged in numerical order, and each page of a Case is identified at the top with the appropriate Case Number.

Legend of Abbreviations

Supp. = Supplement

R = Reinstated

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| 2151-1 | 3-10-1997 | ... | ... | 2404-1 | 11-29-2004 | ... | ... |
| 2155 | 12-6-1993 | ... | ... | 2407 | 2-13-2003 | ... | ... |
| 2156-1 | 9-18-2006 | ... | ... | 2411 | 6-23-2005 | ... | ... |
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