Interpretation: 10-1

Subject: B16.34-2009 Inquiry, Para 6.1
Date Issued: March 23, 2010
Record: 10-166

Question (1): According to para. 6.1.2(c) of ASME B16.34-2009, would a two-piece ball valve design qualify as being a multi-piece construction?

Reply (1): No.

Question (2): According to the inside diameters as required under para. 6.1.2 in conjunction with Table 3A or Table 3B or the equations shown in Mandatory Appendix VI of ASME B16.34-2009, do values of inside diameter greater than 1300 mm fall within the scope of ASME B16.34?

Reply (2): No.

Interpretation: 09-4

Subject: B16.34-2004, Inquiry, Para. 6.1.2
Date Issued: October 20, 2009
Record: 09-1426

Question: In accordance with ASME B16.34-2004, is the wall thickness requirement, para. 6.1.1, for quarter turn valves determined by using the inside diameter, d, requirements of para. 6.1.2?

Reply: Yes.
Interpretation: 09-3

Subject: B16.34-2004, Cavity Relief in valves to avoid trapped pressure

Date Issued: June 29, 2009

Record: 09-106

Question: Does ASME B16.34-2004, require that all valves be provided with center cavity pressure relief?

Reply: No. ASME B16.34-2004, para. 2.3.3 is an advisory clause that cites a user responsibility, see para. 1.2.3.

Interpretation: 09-2

Subject: B16.34-2004, Use of ASTM A694 for valve parts

Date Issued: March 27, 2009

Record: 09-107

Question: May a valve be designated as being in conformance with ASME B16.34 if in its construction a material is used that is not listed in ASME B16.34-2004, Table 1, but said material has comparable chemical and mechanical properties to one that is listed?

Reply: No. The only exception, para. 5.1, is that an identical material that is identified with the ASME Boiler and Pressure Vessel Code, Section II may be used.
Interpretation: 09-1

Subject: B16.34-2004, Substitute ASTM A36 for ASTM A216 WCB

Date Issued: March 27, 2009

Record: 09-105

Question: May a valve be designated as being in conformance with ASME B16.34 if in its construction a material is used that is not listed in ASME B16.34-2004, Table 1, but said material has comparable chemical and mechanical properties to one that is listed?

Reply: No. The only exception, para. 5.1, is that an identical material that is identified with the ASME Boiler and Pressure Vessel Code, Section II may be used.

________________________________________________________________

Interpretation: 08-8

Subject: B16.34-2004, Fabrication of a valve by welding

Date Issued: November 14, 2008

Record: 08-1198

Question: In accordance with B16.34-2004, is it permissible to fabricate a valve by welding?

Reply: Yes, see paragraph 2.1.6 of B16.34-2004.
Interpretation: 08-7

Subject: ASME B16.34-2004, ASME B16.10 requirements
Date Issued: March 18, 2008
Record: 08-348

Question: Does ASME B16.34-2004 require that end-to-end dimensions and face-to-face dimensions meet the requirements in ASME B16.10?

Reply: Yes, for Standard Class flanged and buttwelding end valves unless other dimensions are agreed on by manufacturer and purchaser. See paragraph 6.2.6.

Interpretation: 08-6

Subject: ASME B16.34-2004, bonnet wall thickness
Date Issued: March 18, 2008
Record: 08-347

Question: Does ASME B16.34-2004 have requirements for bonnet wall thickness?

Reply: No.
Interpretation: 08-5

Subject: ASME B16.34-2004, para. 8.3.1.1
Date Issued: March 18, 2008
Record: 08-346

Question: Does ASME B16.34-2004 para. 8.3.1.1 apply for a flanged end body valve?

Reply: No.

Interpretation: 08-4

Subject: ASME B16.34-2004, auxiliary connection
Date Issued: March 18, 2008
Record: 07-1462

Question (1): Do the requirements of ASME B16.34-2004 permit an auxiliary connection to be threaded or welded to the rim of a valve end flange using a radial drill hole between the flange bolt holes?

Reply (1): No. While neither specifically precluded nor specifically identified in para. 6.3, the requirements of para. 6.2.2 compel flange dimensions to be in accordance with ASME B16.5 which has no provision for radial drill holes.

Question (2): In accordance with ASME B16.34-2004, para. 6.3.6, are the listed auxiliary connection sizes applicable to all valve pressure rating designations (Classes)?

Reply 2: Yes.
Interpretation: 08-3

Subject: ASME B16.34-1996, para. 8.4.2

Date Issued: March 18, 2008

Record: 07-1182

Question: Does ASME B16.34-1996 para. 8.4.2 apply to the repair of casting defects in Special Class valve bodies?

Reply: Yes.
Interpretation: 08-2

Subject: ASME B16.34-1996

Date Issued: March 17, 2008

Record: 07-387

Question (1): ASME B16.34-1996, paragraph 6.2.2 refers to ASME B16.5-1996 for specific valve flanged end requirements. ASME B16.5-1996 does not address or refer to any document that addresses dimensions for Class 4500 flanges. In order to design a Class 4500 flanged end valve that is in accordance with ASME B16.34-1996 is there an ASME flange standard that applies?

Reply (1): No. Flanged end valves having Class designations larger than Class 2500 are not within the scope of the ASME B16.34 standard and therefore, cannot be brought into conformance with ASME B16.34. See ASME B16.34-1996, paragraph 2.1(b) or ASME B16.34-2004, paragraph 2.1.1(b).

Question (2): ASME B16.34-1996, paragraph 6.4.1, has equations to determine valve bonnet or bonnet cover joint minimum bolting thread shear area. In paragraph 6.4.1(b), \( P_c \) is defined as “the pressure rating class designation...(see Annex F, paragraph F1.3)”. In Annex F, paragraph F1.3 discusses required valve wall thickness in relation to an approximation equation identified with “\( t \)”. Paragraph F1.3 also defines \( P_c \) as “pressure rating class designation...”. At the end of F1.3 a caveat appears as, “The equation does not apply for values of \( P_c \) greater than 4500.”
(a) Does the F1.3 caveat for \( P_c \) apply for the equations appearing in paragraphs 6.4.1(a) and 6.4.2(a) and elsewhere?
(b) If so, is there an ASME flange standard that applies for Class 4500 valve end flanges?

Reply (2(a)): Yes. See ASME B16.34-1996, paragraph 2.1(b) (and B16.34-2004 paragraph 2.1.1(b)).

Note: Except for welding end valves, valves having Class designations larger than Class 2500 are not within the scope of the B16.34 standard. Neither paragraph 6.4.1(a) nor 6.4.2(a) is applicable to valve end flanges. Class designation greater than Class 2500 is only permitted for a welding end valve. Furthermore, the paragraph F1.3, including its equation, is comparative information and does not impose any requirement. As ASME B16.34-1996 (and B16.34-2004), paragraph F1.3 states, valve wall thickness requirements are addressed in paragraph 6.1.
Reply (2(b)): No, see Reply (1).

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**Interpretation: 08-1**

**Subject:** ASME B16.34-2004, Table VII-2-1.2

**Date Issued:** March 17, 2008

**Record:** 06-1609

**Question (1):** In accordance with ASME B16.34-2004, Table VII-2-1.2, is ASTM A 216 Gr WCC, heat treatment quench and temper included in the material listing?

**Reply (1):** Yes.

**Question (2):** In accordance with ASME B16.34-2004, Table VII-2-1.2, does ASTM A 216 Gr WCC, heat treatment quench and temper have a service temperature limitation?

**Reply (2):** Yes, see Note (2).

**Question (3):** In accordance with ASME B16.34-2004, Table VII-2-1.2, is ASTM A 216 Gr WCC, heat treatment quench and temper permitted to be used at a temperature over 650 °F?

**Reply (3):** Yes, see Note (2).

**Question (4):** In accordance with ASME B16.34-2004, Table VII-2-1.2, for ASTM A 216 Gr WCC, heat treatment quench and temper does Note (4) apply?

**Reply (4):** No.
Interpretation: 07-3

Subject: ASME B16.34-2004, Para. 8.3.1.1

Date Issued: April 6, 2007

Record: 07-398

Question: In accordance with ASME B16.34-2004, clause 8.3.1.1, is it permitted to have a value of “A” for radiographic film coverage for a valve body end that is reduced when a valve body end contour has a permanent integral external collar (see clause 6.1.5) placed a distance less than the greater of either three times the required valve body minimum wall thickness or 70 mm from the valve body end?

Reply: Yes.

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Interpretation: 07-2

Subject: ASME B16.34-2004, Appropriate Application of Unit Systems for Pressure/Temperature Markings

Date Issued: April 6, 2007

Record: 06-1577

Question: In accordance with ASME B16.34-2004, clause 4.3.2, the identification plate for Special Class designated valves, valves meeting all requirements of ASME B16.34 including those of Clause 8, shall be marked with the pressure rating class designation, i.e. 900, and the valve pressure rating at 38 °C (100 °F). What pressure units apply for 38 °C and what pressure units apply for 100 °F?

Reply: Clause 1.2.5 requires that metric and customary units be applied separately and that application of combinations of units may constitute nonconformance. Therefore, work in C and bar only or in F and psi only, using applicable tables. Do not combine units.

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**Interpretation: 07-1**

Subject: ASME B16.34-2004, Corrosion Allowance in Wall Thickness Requirements

Date Issued: January 26, 2007

Record: 06-1499

Question: Does ASME B16.34-2004 address corrosion allowance?

Reply: No.

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**Interpretation: 06-1**

Subject: ASME B16.5 and B16.34 related questions – Clarification of Valve Flange

Date Issued: September 25, 2006

Record: 04-1106

Question: Can a valve flange have drilled and tapped bolt holes instead of through holes and still be considered an ASME B16.5 flange?

Reply: For valve end flange requirements relating to tapped bolt holes, see ASME B16.34-2004, Clause 6.2.2.
Interpretation: 04-1

Subject: B16.34 (1996 Edition, a-1998 Addenda); 6.4.1(a)

Date Issued: April 30, 2004

Record: 04-444

Question: In accordance with ASME B16.34 a-1998 Addenda – 1996 Edition, paragraph 6.4.1(a), may a manufacturer of a bolted bonnet or bolted cover valve identify the valve as being in accordance with ASME standard B16.34 when the bolting threads do not meet the requirements of ANSI B1.1?

Reply: No.

Interpretation: 03-3

Subject: B16.34 (1996 Edition, a-1998 Addenda); 8.3.1.1, and 8.3.1.3

Date Issued: July 11, 2003

Record: 02-4044

Question: In accordance with ASME B16.34 (1996 Edition, a-1998 Addenda) paragraph 8.3.1.3, is it a requirement that, for a special class valve, when ultrasonic examination is used for a body or bonnet or cover plate in place of radiographic examination that the area to be examined includes all of those areas for that part as described in paragraph 8.3.1.1?

Reply: Yes.
Interpretation: 03-2

Subject: B16.34 (1996 Edition, a-1998 Addenda); 2.1.5(a), 6.1.1, and 6.1.2

Date Issued: July 11, 2003

Record: 02-4013

Question: In accordance with ASME B16.34 (1996 Edition, a-1998 Addenda), is it a requirement that when a valve manufacturer joins a butt-weld end valve to a welding neck flange, a pipe nipple, a valve end enlarger, or a pipe reducer that the valve wall thickness, including the attachment, adhere to the wall thickness as specified in paragraphs 6.1.1 and 6.1.2?

Reply: Yes. The manufacturer of a valve fabricated by welding, wholly or in part, needs to meet all the requirements of ASME B16.34, including paragraph 2.1.5(a).

Interpretation: 03-1

Subject: B16.34 (1996 Edition, a-1998 Addenda); 6.3.1

Date Issued: July 11, 2003

Record: 02-4186

Question: Are the requirements of ASME B16.34 (1996 Edition, a-1998 Addenda), paragraph 6.3.1, requirements for auxiliary connections that are installed as part of valve manufacture or do they also apply to a valve purchaser having such additions made at an installation site or other site?

Reply: The requirements of paragraph 6.3 for auxiliary connections are specific to valve manufacture. When a purchaser assumes possession, he may elect to have such connections fabricated in accordance with a governing code or regulation applicable to his installation. See paragraph 1.2.2.
Interpretation: 4-22

Subject:     Manufacturer's Pressure-Temperature Rating
Date Issued:  Feb 13, 2003
File:        B16-02-03902

Question: In accordance with ASME B16.34 (1996 Edition, 1998 Addenda) may a valve, of a specified pressure class, having a manufacturer's own pressure-temperature rating, one that exceeds the published ratings in ASME B16.34, be identified as being in compliance with ASME B16.34?

Reply: No.

Interpretation: 4-21

Subject:     Paragraph 7.2, Valve Closure Test
Date Issued:  February 13, 2003
File:        B16-02-03971

Question: Does ASME B16.34 (1996 Edition, a-1998 Addenda) require valve closure tests in addition to what is specified by para. 7.2?

Reply: No.

Interpretation: 4-20

Subject:     Paragraph 7.1, Shell Test
Date Issued:  November 8, 2002
File:        B16-02-005

Question: In accordance with ASME B16.34-1998, if a valve shell test is performed at a temperature higher than 100°F and at a pressure lower than 1.5 times the 100°F valve pressure rating, does this meet the requirements of para. 7.1?

Reply: No.
Interpretation: 4-19

Subject: B16.34-1996, paras. 2.1.1(g), 2.2, F1.2, and 7.1

Date Issued: Jan 14, 2000

File: B16-99-020

Question (1): For ASME B16.34-1996, do paras. 2.1.1(g) and 2.2 imply that the pressure-temperature ratings apply only to the valve shell and not to the seating elements?

Reply (1): No.

Question (2): Does ASME B16.34-1996 permit valve pressure-temperature ratings to be limited by valve internals or seating or sealing materials?

Reply (2): Yes.

Question (3): In ASME B16.34-1996, para. F1.2, in the last sentence, do the words “other parts such as bonnet gaskets and bolting” include a valve actuator?

Reply (3): No. An actuator does not fit the “such as” restriction.

Question (4): In ASME B16.34-1996, para. 7.1, last sentence, is there a conflict between “leakage through the stem packing shall not be cause for rejection” during the shell test that is at a pressure 1½ times that of the cold working pressure and “however stem seals shall be capable of retaining pressure at least equal to the 100° F ratings without visible leakage” that corresponds to a pressure at least equal to the cold working pressure?

Reply (4): No.
**Interpretation: 4-18**

Subject: B16.34-1996, Date for Implementation of Requirements  
Date Issued: January 13, 2000  
File: B16-99-021

Question (1): Upon publication of a new edition of ASME B16.34, is there a mandatory date for its implementation?

Reply (1): No. Implementation may be required by reference, for example, in a Code, specification, sales contract, or public law.

Question (2): For valves in full conformance with ASME B16.34-1988, manufactured prior to January 31, 1997, the date of issuance of ASME B16.34-1996, is it required that prior to or upon installation after January 31, 1997, that such unused valves be certified by the manufacturer to ASME B16.34-1996?

Reply (2): No. Paragraph 1.2.3, ASME B16.34-1996 permits but does not require such updated certification.

**Interpretation: 4-17**

Subject: B16.34-1996, para. 2.1.5(b), Valves Fabricated by Welding  
Date Issued: February 17, 1999  
File: B16-98-030

Question: For a weld-fabricated valve, constructed in accordance with the requirements of ASME B16.34-1996, do the requirements of para. 2.1.5(b) include impact testing for high-alloy steels to be in conformance with ASME Boiler and Pressure Vessel Code, Section VIII, Division 1, Part UHA-51?

Reply: Yes. Note also the requirements of ASME B16.34, para. 1.2.2 for use of material at low-temperature, para. 2.1(g) for material considerations limiting pressure ratings, and para. 2.3.2 for low-temperature service.
Interpretation: 4-16

Subject: B16.34-1996, Fig. 10
Date Issued: December 17, 1998
File: B16-98-027

Question: Figure 10 of ASME B16.34-1996 illustrates the radiographic film coverage for a plate-style flanged bonnet. When a bonnet is of a hemispherical style, does the film coverage, dimension A, apply to the intersection of the stem hole projection and the spherical dome?

Reply: The coverage applies to the bonnet flange intersection.

________________________________________________________________

Interpretation: 4-15

Subject: B16.34-1996, para. B1.11
Date Issued: December 17, 1998
File: B16-98-026

Question: In accordance with ASME B16.34-1996, is it permissible to substitute the radiographic sensitivity requirements of ASME BPV Section V, Clause T-267 for the requirements of B16.34, para. B1.11?

Reply: No.
Interpretation: 4-14

Subject: B16.34-1996, Annex F, Table F4-A
Date Issued: December 17, 1998
File: B16-98-025

Question: For ASME B16.34-1996, may the pressure rating ceiling values of Table F4 be interchanged with pressure-temperature rating values given in Table 2?

Reply: No. Table F4 is an informative table that is presented only to illustrate how it was used in conjunction with the rules of Annex F in the establishment of the specific rating requirements on Table 2.

Interpretation: 4-13

Subject: B16.34-1996, Requirements for Radiographic Examination of Flanged End Valves
Date Issued: November 17, 1998
File: B16-98-024

Question: Does ASME B16.34-1996, include requirements for radiographic examination of flanged end valves?

Reply: No. Paragraph 8.1 defines the applicability of examinations in Section 8 as being for Special Class Valves. Paragraph 2.1.2 limits Special Class construction to valves having threaded or welding ends.
Interpretation: 4-12

Subject: B16.34-1996, In-Service Requirements for Valves

Date Issued: November 17, 1998

File: B16-98-023

Question: For a new valve, constructed in accordance with the requirements of ASME B16.34-1996, are there ASME B16.34 requirements for subsequent disassembly, cleaning, reassembly, and testing?

Reply: No.

________________________________________________________________

Interpretation: 4-11

Subject: B16.34-1996, paras. 6.4.1(a) and 6.4.2(a)

Date Issued: November 17, 1998

File: B16-98-022a and B16-98-022b

Question: Do the bolting requirements of para. 6.4.1(a) or para. 6.4.2(a) of ASME B16.34-1996 apply for the flanges of a bolted split-body valve? A bolted split-body valve is defined here as having bolted flanged joints perpendicular to the pipeline in which it is installed, and said flanges are called upon to assume the same piping loads as the valve and flanges?

Reply: Paragraph 6.4.2(a) applies. Paragraph 6.4.1(a) applies only for valve bonnets or cover joints. Observe that these are minimum requirements, and according to para. 6.4.3, the valve manufacturer must determine if additional bolting is needed.
Interpretation: 4-10

Subject: B16.34-1996, para. 8.3.1.1

Date Issued: October 22, 1998

File: B16-98-021

Question: When constructing Special Class valves that are of a configuration not specifically illustrated in Figs. 6 through 15 of ASME B16.34-1996, may a composite that combines elements of several of these figs. be used in order to meet the requirements of para. 8.3.1.1 for radiographic film coverage?

Reply: Yes.

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Interpretation: 4-9

Subject: B16.34-1996, paras. 6.4.1(a) and 6.4.2(a)

Date Issued: October 22, 1998

File: B16-98-020

Question: In accordance with ASME B16.34-1996, are there conditions that permit the substitution of the bolting area requirements of 6.4.1(a) for those of 6.4.2(a)?

Reply: No.
Interpretation: 4-8

Subject: B16.34-1996, para. 8.3.1.1
Date Issued: October 22, 1998
File: B16-98-019

Question: For Special Class valves to be in accordance with ASME B16.34-1996, may the requirements for casting radiography of ASME BPVC Section V be substituted for those of para. 8.3.1.1?

Reply: No.

Interpretation: 4-7

Subject: B16.34-1996, para. 6.7
Date Issued: August 31, 1998
File: B16-98-012

Question: Are the requirements of para 6.7 of ASME B16.34-1996, applicable to a flange design for the flanged body joint of a two-piece type ball valve body?

Reply: No. Paragraph 6.7 is specific to wafer or flangeless valves.

Interpretation: 4-6

Subject: B16.34-1996, para. 7.1
Date Issued: May 20, 1998
File: B16-98-010

Question: Under ASME B16.34-1996, does para. 7.1 include an allowance for bonnet joint gasket leakages just as it does for stem packing leakage?

Reply: No.
Interpretation: 4-5

Subject: B16.34-1996, Designation of B16.34 Identification on a Valve and Valve Sizing

Date Issued: May 2, 1998

File: B16-98-009

Question (1): Under ASME B16.34-1996, is it permissible to apply a “B16.34” designation on the identification plate of a valve made of a material not listed in Table 1?

Reply (1): No.

Question (2): Under ASME B16.34-1996, is it permissible to designate a valve as being in compliance with B16.34 when the valve is made of material not listed in Table 1 and whose pressure-temperature rating was calculated by the method in Annex F?

Reply (2): No. The purpose of Annex F is to document the procedure used for calculating the pressure-temperature values for Table.

Question (3): Annex A of B16.34-1996 lists sizes to NPS 30 and pressure classes to Class 2500. Is there a listing or method to calculate values for larger sizes or higher pressure classes?

Reply (3): No. Annex A is an informative annex and as such is shown as one that is nonmandatory.
Interpretation: 4-4

Subject: B16.34-1996, para. 5.2.2
Date Issued: May 2, 1998
File: B16-98-008

Question: Does ASME B16.34-1996, para. 5.2.2 place an obligation on a user to specify service conditions when those conditions are in a range that dictate the need for compliance with special requirements for material processing or testing, such as those cited in the example of that paragraph?

Reply: Yes.

Interpretation: 4-3

Subject: B16.34-1996, para. 6.1.6
Date Issued: April 6, 1998
File: B16-98-006c

Question: Do the rules of para. 6.1.6 in B16.34-1996 apply to local areas having less than the required minimum wall thickness resulting from manufacturing operations, such as casting, forging, and machining, including grinding, milling, and drilling?

Reply: Yes.
Interpretation: 4-2
Subject: B16.34-1998, Use of Table 3 to Determine Minimum Wall Thickness
Date Issued: April 6, 1998
File: B16-98-006b

Question: Under the rules of B16.34-1998, is it permissible to use Table 3 to extrapolate minimum wall thickness for valves having pressure-temperature ratings less than class 150?

Reply: No.

________________________________________________________________

Interpretation: 4-1
Subject: B16.34-1996 and 1998, Flange Thickness Requirements
Date Issued: April 6, 1998
File: B16-98-006a

Question: Are flanged valves that conform to the flange thickness requirements for PN 10 steel valves within the Scope of ASME B16.34-1996 or 1998?

Reply: No.
Interpretation: 2-47

Subject: Minimum Wall Thickness

Date Issued: April 6, 1998

File: B16-98-006

Question (1): Do the rules of para. 6.1.6 in ASME B16.34-1996 apply to local areas having less than the required minimum wall thickness resulting from manufacturing operations such as casting, forging, and machining, including grinding, milling, and drilling?

Reply (1): Yes.

Question (2): Under the rules of ASME B16.34-1988, is it permissible to use Table 3 to extrapolate minimum wall thickness for valves having pressure-temperature ratings less than class 150?

Reply (2): No.

Question (3): Are flanged valves that conform to the flange thickness requirements for PN 10 steel valves within the scope of either ASME B16.34-1988 or –1996?

Reply (3): No.
Interpretation: 2-46

Subject: Multiple Material Marking/Identification Plate

Date Issued: April 6, 1998

File: B16-98-005

Question (1): When a valve body material meets all the requirements of two separate material specification grades listed in Table 1 of ASME B16.34-1996, may the valve body be marked with both material grade symbols in accordance with para. 4.2.8?

Reply (1): Yes.

Question (2): Is the selection of which of the two maximum or limiting temperatures to be shown on the identification plate required by para. 4.3 of ASME B16.34-1996 for a valve body that is marked with two material grade symbols designating material grades that have differing cautionary or specified temperature limits listed in the respective Table 2 Notes the option of the manufacturer?

Reply (2): Yes.
Interpretation: 2-45

Subject: Para. 6.7
Date Issued: August 11, 1997
File: B16-97-002

Question (1): Are multiple radial holes that penetrate the required minimum wall thickness of a valve body, e.g. holes for the purpose of securing an identification plate, permitted under the requirements of para. 6.7(g) of ASME B16.34-1988?

Reply (1): No. This clause only identifies requirements related to a single radial hole.

Question (2): Is it permissible to apply the requirements of para. 6.7 of ASME B16.34-1988 to butterfly-type valves that have integral or welded flanges on one or both ends?

Reply (2): No.

Interpretation: 2-44

Subject: Paragraph 6.1.2; Inside Diameter
Date Issued: December 13, 1995
File: B16-95-008

Question: For socket-welding-end valves, does ASME B16.34-1988, by reference to ASME B16.11 in para. 6.2.3 require that the inside diameter, \( d \), defined in para. 6.1.2, be the “bore diameter of fitting” as in ASME B16.11?

Reply: No.
Interpretation: 2-43

Subject: Separation Requirements

Date Issued: August 11, 1995

File: B16-95-004

Question: In B16.34-1988, paras. C2.1(a), and D2.2(a), does the separation requirement for linear indications apply only to linearly aligned indications?

Reply: No. The separation requirement applies equally to all alignments.
Interpretation: 2-42

Subject: Paragraph 6.7; Wafer or Flangeless Valves

Date Issued: August 11, 1995

File: B16-95-003

Question (1): In B16.34-1988, are the requirements of para. 6.7 applicable to all valves whose body category is wafer or flangeless?

Reply (1): Yes.

Question (2): In B16.34-1988, para. 6.7(e) requires that the sum of an inner and outer ligament shall not be less than \( t_m \), the required minimum thickness. In Fig. 16, under “Relationship,” it is also noted that the sum of the dimensions “f” and “g” shall not be less than \( t_m \). Is the dimension “g” correctly shown in the drawing?

Reply (2): No. There is a printing error. The dimension “g” should have been shown as an outer ligament dimension as described by the text.

Question (3): In B16.34-1988, Fig. 16, may the hole illustrated with dimension “g” be repeated around the valve body periphery for the purpose of defining attachment flange bolt holes?

Reply (3): No.

Question (4): In B16.34-1988, may para 6.7 be used to determine minimum wall thickness requirements for a multipiece valve body having blind holes parallel to the central body run (e.g., holes in a wafer type center piece) for assembly bolting?

Reply (4): Yes.
**Interpretation: 2-41**

Subject: On-Line Valve Modifications

Date Issued: January 16, 1994

File: B16-94-009

Question: Are on-line valve modifications, for example drilling and tapping into a packing chamber to add an auxiliary fitting, covered by ASME B16.34-1988?

Reply: No. See para. 1.1 where the scope is defined as applying only to new valve construction.

**Interpretation: 2-40**

Subject: Inservice Material Deterioration

Date Issued: January 16, 1994

File: B16-94-010

Question: Does ASME B16.34-1988 include requirements for inspection for inservice material deterioration and mandatory valve replacement?

Reply: No. Requirements are limited to new valves by the scope.
Interpretation: 2-39

Subject: Paragraph F1.3; Wall Thickness

Date Issued: September 14, 1994

File: B16-94-007


Reply (1): See the Foreword and Scope of this Standard.

Question (2): Is the equation shown in para. F1.3 of ASME/ANSI B16.34-1988 a valve body minimum wall thickness requirement?


Question (3): Under ASME/ANSI B16.34-1988, is valve design the responsibility of the manufacturer so long as the minimum wall thickness requirement is met?

Reply (3): No, the manufacturer is responsible for meeting all the applicable requirements of the standard.

Question (4): In ASME/ANSI B16.34-1988, Table 3 values relate to valve body required minimum wall thickness. Since the equation in para. F1.3 is not a wall thickness requirement of the Standard, why is it included?

Reply (4): It is included as background material since it provides, as explained in para. F1.3, a near approximation to the values tabulated in Table 3.

Question (5): May the design rules of the ASME Boiler and Pressure Vessel Code, e.g., Section VIII-Division 1, be used as a supplemental reference for establishing additional metal thickness noted in para.6.7 of ASME/ANSI B16.34-1988?

Reply (5): In para. 6.7, the responsibility for the determination of appropriate design rules is placed on the manufacturer.

Question (6): When will ASME/ANSI B16.34-1988 be revised to provide for the used of metric bolting?

Reply (6): Consideration is presently being given to adding metric bolting and other metric references to ASME B16.34. A schedule has not been

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Interpretation: 2-38

Subject: Standard Class Valve

Date Issued: August 2, 1994

File: B16-94-005

Question (1): According to ASME/ANSI B16.34-1988, is the sold [sic] requirement for conformance as a standard class valve successful completion of a hydraulic test?

Reply (1): No. For conformance all of the requirements of ASME B16.34 must be met including those applicable requirements of reference specifications.

Question (2): When forgings or castings of an ASME/ANSI B16.34-1988 valve are weld repaired does the valve then merit a special class rating?

Reply (2): No. In order to assign a special class rating of all the requirements for special class must be met.

Interpretation: 2-37

Subject: Paragraph 8.3.1.1; Radiographic Examination

Date Issued: June 21, 1994

File: B16-94-004

Question: In ASME/ANSI B16.34-1988, Fig. 10 illustrates casting section radiographic examination film coverage requirements for a plate type flanged bonnet for a gate valve. For a hemispheric flanged bonnet, not illustrated in ASME/ANSI B16.34-1988, does the section dimension “A,” when applied at the intersection of the stuffing box neck and the hemispherical junction satisfy the requirements of Clause 8.3.1.1(b)?

Reply: Yes.
Interpretation: 2-36

Subject: Paragraph 7.1; Shell Test

Date Issued: April 5, 1994

File: B16-94-001

Question: According to ASME/ANSI B16.34-1988, are the requirements for valve shell pressure testing met when pressure retaining parts are separately tested in accordance with paragraph 7.1 and later the valve assembled form these parts is tested at a test pressure lower than the shell test pressure required by para. 7.1?

Reply: No.

Interpretation: 2-35

Subject: Table 1, Body-Bonnet and Cover Bolting

Date Issued: February 1, 1994

File: B16-93-024

Question (1): According to ASME/ANSI B16.34-1988, if a valve design incorporates an intervening element between the body and the bonnet or cover plate with said element forming part of the pressure shell while being retained by the body-bonnet or cover bolting, is said element required to be of a material listed in Table 1, Group 1, 2, or 3 and be retained by bolting of a material listed in Table 1 Group 4?

Reply (1): Yes.

Question (2): According to ASME/ANSI B16.34-1988 if a valve design incorporates an intervening element between the body and the bonnet or cover plate with said element forming part of the pressure shell while being retained by the body-bonnet or cover bolting, does the bolting have to meet all the requirements for body-bonnet cover bolting?

Reply (2): Yes.
Interpretation: 2-34

Subject: Paragraph 8.3.1.1; Radiographic Examination

Date Issued: October 4, 1993

File: B16-93-019

Question: If a valve casting is subject to radiography in accordance with ASME B16.34-1988, para. 8.3.1.1, and found to have indications in excess of the Annex B2 acceptance criteria, may that casting be repaired by welding in accordance with para. 8.4 and again be radiographed to determine acceptability?

Reply: Yes.

Interpretation: 2-33

Subject: Table 1

Date Issued: October 4, 1993

File: B16-93-015

Question: May valves be marked as being in compliance with ASME/ANSI B16.34-1988 when constructed of materials specified in ASME Boiler and Pressure Vessel Code Cases but which are not included in Table 1?

Reply: No. See paras. 1.1 and 5.1 which require that materials be selected from those listed in Table 1.
Interpretation: 2-32

Subject: Paragraph 4.1.3; Rating, Identification Plate

Date Issued: November 8, 1993

File: B16-93-014

Question (1): In ASME/ANSI B16.34-1988, para. 4.1.3, is the reference identification plate the identification plate provided by the manufacturer?

Reply (1): Yes.

Question (2): Does ASME/ANSI B16.34-1988 require the applicable “B16.34” designation to be marked other than on the manufacturer’s identification plate?

Reply (2): No.

Question (3): Is a valve in conformance with ASME/ANSI B16.34-1988 if it does not have the applicable “B16.34” designation on the manufacturer’s identification plate?

Reply (3): No.

Question (4): The footnote to Clause 4.1.3 in ASME/ANSI B16.34-1988 permits, upon written conformation [sic] from the manufacturer, marking socket weld or threaded end valves with “B16.34” or “B16.34 LTD.” Does this also permit the marking of flanged end valves as “B16.34” or butt welding end valves as “B16.34 SPL” by other than the valve manufacturer?

Reply (3): No.
Interpretation: 2-31

Subject: Special Class Valves
Date Issued: August 11, 1993
File: B16-93-013

Question: Does ASME/ANSI B16.34-1988 include requirements for Special Class Valves having other than threaded or welding ends?

Reply: No.

Interpretation: 2-30

Subject: Paragraph 6.4.2; Body Joints
Date Issued: October 19, 1993
File: B16-93-007

Question (1): With reference to ASME/ANSI B16.34-1988 para. 6.4.2, may a valve manufacturer use one of the bolting materials from Table 1 that has an allowable stress in excess of 20,000 psi for a valve body joint?

Reply (1): Yes.

Question (2): When a valve manufacturer selects a bolting material from ASME B16.34-1988, Table 1, for a valve body joint and that material has an allowable stress greater than 20,000 psi, is it permissible to use that higher allowable stress when calculating the bolting area requirement in accordance with Clause 6.4.2(a)?

Reply (2): No.
Interpretation: 2-29

Subject: Scope

Date Issued: January 6, 1993

File: B16-92-029

Question (1): Does the scope of ASME/ANSI B16.34-1988 include coverage for valve end configurations other than those related to flanged, butt welding, socket welding or threaded?

Reply (1): No.

Question (2): Are valves with end configurations other than those within the scope of B16.34-1988 permitted under ASME pressure vessel and piping Codes?

Reply (2): Since Code requirements may vary regarding conformance stipulations it is necessary that the applicable code be consulted.

Interpretation: 2-28

Subject: Welding End Valves

Date Issued: August 19, 1992

File: B16-92-018

Question: In ASME/ANSI B16.34-1988, when reference is made to welding end valves, e.g., para. 1.1 under Scope, does that include both socket welding end valves and butt welding end valves?

Reply: Yes.
Interpretation: 2-27

Subject: Paragraph 7.1; Shell Testing

Date Issued: August 25, 1992

File: B16-92-017

**Question (1):** Under ASME/ANSI B16.34-1988, when a flanged end valve body that had been shell tested has the end flanged gasket seating surface remachined to provide a different surface finish, is it required that the valve body again be shell tested?

**Reply (1):** Shell testing requirements apply to assembled valves. There are no provisions for separate pressure testing of valve component parts such as valve bodies.

**Question (2):** Under ASME/ANSI B16.34-1988, when a flanged end valve that has been shell tested has the body end flange gasket seating surface remachined to provide a different surface finish, is it required that the valve again shall be tested?

**Reply (2):** No. However, it should be noted that ASME/ANSI B16.34-1988 applies to new valve construction, para. 1.1. Therefore, the valve would not require retest if the remachining was done either by or under the aegis of the valve manufacturer.
Interpretation: 2-26

Subject: Paragraph 5.1.2; Investment Castings

Date Issued: August 19, 1992

File: B16-92-013

Question (1): Does ASME/ANSI B16.34-1988 place limits on the size or pressure class for investment cast bodies, bonnets or cover plates?

Reply (1): No.

Question (2): To what extend do the limits on size and pressure class in para. 5.1.2 apply?

Reply (2): These limits restrict the use of the cited alternative material specification requirements when master heats are used for investment castings.

Interpretation: 2-25

Subject: Paragraph 2.1.5; Valves Fabricated by Welding

Date Issued: May 12, 1992

File: B16-92-010

Question: Are the factors 0.80 and 1.00 cited in paras. 2.1.5(c)(1) and 2.1.5(c)(2) casting quality factors?

Reply: No. These factors represent weld joint efficiency for which the reference ASME Boiler and Pressure Vessel Code, Section VIII, Division 1, specifies, for the type of weld joint used, the degree of nondestructive examination required.
Interpretation: 2-24

Subject: Paragraph 2.1.5; Valves Fabricated by Welding
Date Issued: May 12, 1992
File: B16-92-009

Question (1): Under ASME/ANSI B16.34-1988, is there a valve size above which both flanged end valves and Standard Class welding end valves that are fabricated by welding are required to meet the nondestructive examination requirements of ASME Boiler and Pressure Vessel Code, Section VIII, Division 1, for welding?

Reply (1): Yes, see para. 2.1.5(c).

Question (2): For the fabrication welds identified in the first question, are these nondestructive examination requirements applicable to all such welds regardless of size?

Reply (2): Yes.
Interpretation: 2-23

Subject: Flanged-End Dimensions

Date Issued: May 12, 1992

File: B16-92-004

Question: Under ASME/ANSI B16.34-1988, what dimensions apply for flanges or flanged-end valves that are of a smaller size than those listed in the reference ASME B16.5?

Reply: Valves having end flanges smaller than those listed in ASME B16.5 are not covered by the scope of ASME B16.34-1998. [sic]

Subject: Paragraph 5.1; Bolting Material

Question: For valve bolts, does ASME/ANSI B16.34-1988 have requirements for bolt head configuration?

Reply: No, however, bolting material is required to be in accordance with one of the bolting specifications listed in Table 1 under Group 4. See para. 5.1.

Interpretation: 2-22

Subject: Minimum Wall Thickness

Date Issued: April 2, 1992

File: B16-92-004

Question: In accordance with ASME/ANSI B16.34-1988, what basic inside diameter should be used when determining minimum required body wall thickness for a wafer style ball valve?

Reply: The diameter associated with the valve body inside circumference should be used. See para. 6.7(c) and Fig. 16.
Interpretation: 2-21

Subject: Materials
Date Issued: February 14, 1992
File: B16-92-003

Question: In accordance with ASME/ANSI B16.34-1988, is material ASTM A105 suitable for a valve body at a temperature of –25°C?

Reply: Yes.

Interpretation: 2-20

Subject: 6.2.2; Vale Flange Ends
Date Issued: February 27, 1992
File: B16-91-016


Reply: Yes, see para. 6.2.2.
Interpretation: 2-19

Subject: Single Flange (Lug Type) Valve Body
Date Issued: July 31, 1991
File: B16-91-009

Question: Does ASME/ANSI B16.34-1988 prohibit a single flange (lug type) valve body made from a plate material listed in Table 1 when the design is such that the body is loaded in tension from pressure and piping loads?

Reply: No. However, para. 1.2.2 cautions limitations that may be imposed by codes or regulations, para 5.2 notes that criteria for the selection of materials are not within the scope of the Standard and para. 6.1.7 places responsibility for adequate metal thickness upon the valve manufacturer.

Interpretation: 2-18

Subject: Special Class Valves
Date Issued: August 2, 1991
File: B16-91-008

Question: In the case of a valve to be qualified for a Special Class designation under ASME/ANSI B16.34-1988 that is not of a type specifically illustrated in Figs. 6 through 15, e.g. a weld end ball valve, may a composite, using for example elements of Figs. 12 and 13, be constructed in order to satisfy the radiographic film coverage requirements detailed in para. 8.3.1.1?

Reply: Yes.
Interpretation: 2-17

Subject: Materials
Date Issued: April 19, 1991
File: B16-91-004

Question: Is a valve that uses ASTM A269-TP304 pipe instead of ASTM A312-TP304 in the fabrication of the valve bonnet in conformance with ASME/ANSI B16.34-1988?

Reply: No, see paras. 1.1 and 5.1.

________________________________________________________________

Interpretation: 2-16

Subject: Minimum Wall Thickness
Date Issued: April 10, 1991
File: B16-91-003

Question: Under ASME/ANSI B16.34-1988, are the rules for minimum valve body wall thickness also requirements for valve parts other than the valve body?

Reply: No.
Interpretation: 2-15

Subject: 6.1.1; Minimum Wall Requirements
Date Issued: March 19, 1991
File: B16-90-041

Question: Under ASME/ANSI B16.34-1988, for a valve body of sectional construction (see para. 6.4.2) where the body joint includes an internal gasket whose placement isolates an internal end section of the body wall from the contained fluid, is it necessary that the entire body meet the minimum wall requirements of para. 6.1.1?

Reply: Yes, taking due account that it is an obligation on the part of the manufacturer to identify the wetted surfaces that apply under para. 6.1.1 and to ensure that the applicable metal thickness requirements of para. 6.1.7 and the bolting requirements of para. 6.4.3 are accommodated.

Interpretation: 2-14

Subject: Requirements for Special Class Valves
Date Issued: January 21, 1991
File: B16-90-038

Question (1): For a Special Class valve in accordance with ASME/ANSI B16.34-1988, is it permissible to construct a composite area for radiographic coverage, based on Fig. 6 through 15, that meets the intent of para. 8.3.1.1 for a valve body shape not illustrated?

Reply (1): Yes.

Question (2): Do any of the Figs. 6 through 15 illustrate the seat-body shell radiographic coverage that would be required for a valve body in the form of two intersecting mutually perpendicular cylinders, where one of the cylinders corresponds to the valve nozzles and the other to an upper and lower bonnet cavity?

Reply (2): Yes, Fig. 13, Sections X-X and Y-Y.
Interpretation: 2-13

Subject: Annex F; Special Class Rating Method

Date Issued: January 21, 1991

File: B16-90-034

Question: Does Annex F, Special Class Rating Method, ANSI B16.34-1981, include requirements for determining hydrostatic shell test pressure?

Reply: No. The purpose of Annex F, see F1.1, is to record the rules that were used to determine the tabulated pressure-temperature ratings. The only pressure-temperature ratings recognized for Special Class valves are those in Table 2. The required hydrostatic shell test pressure, for all valves, is as described in para. 7.1.
**Interpretation: 2-12**

Subject: Paragraph 8.4; Defect Removal and Repair  
Date Issued: January 21, 1991  
File: B16-90-030

Question (1): In ASME/ANSI B16.34-1988, is Clause 8.4, covering defect removal and repair, a requirement only for Special Class valves?  
Reply (1): Yes.

Question (2): Where are the requirements for defect removal, repair, and post weld heat treatment other than Special Class Valves?  
Reply (2): The requirements are those stipulated in the respective ASTM specifications as covered in Table 1.

Question (3): When a valve is used in conjunction with an ASME Code for Pressure Piping and is designated as a Special Class valve and is so marked on the valve identification plate, is it required that the post weld heat treatment provisions or para. 8.4.2(c) be met?  
Reply (3): yes. For limitations imposed by codes and regulations, see para. 1.2.2.

**Interpretation: 2-11**

Subject: Paragraph 2.1.5 (c); Valves Fabricated by Welding  
Date Issued: October 31, 1990  
File: B16-90-020

Question: Does ASME/ANSI B16.34-1988 require nondestructive examination for Standard Class Valves, NPS 6 and smaller, that are fabricated by welding?  
Reply: No.
Interpretation: 2-10

Subject: Paragraph 6.1.2; Inside Diameter

Date Issued: June 11, 1990

File: B16-90-015

Question: With reference to ANSI B16.34-1981, para. 6.1.2, for butt welding [sic] end valves, may the “basic inside diameter at the valve end” be taken as the inside diameter of the highest pipe Schedule Number applicable to the valve size and pressure class?

Reply: No. The basic inside diameter is a valve specific dimension that may or may not be relevant to a particular set of pipe dimensions.

Interpretation: 2-9

Subject: Paragraph 6.1.3; Valve Body Necks

Date Issued: May 4, 1990

File: B16-90-07

Question: Does para. 6.1.3 of ASME/ANSI B16.34-1988 prohibit a gate valve design using a rectangular body neck?

Reply: No, however, para. 6.1.7 requires that the manufacturer determine if additional metal is needed for shapes other than circular.
Interpretation: 2-8

Subject: Seal Welding
Date Issued: April 9, 1990
File: B16-90-001

Question: Does ASME/ANSI B16.34-1988 include fabrication requirements for seal welding of seat rings into valve bodies?

Reply: No.

Interpretation: 2-7

Subject: Paragraph 2.1.3; Limited Class Valves
Date Issued: April 9, 1990
File: B16-89-011

Question (1): Does the expression “welding end” in ASME/ANSI B16.34-1988, para. 1.1 apply to both socket welding and butt welding end valves?

Reply (1): Yes.

Question (2): May butt welding end valves, size NPS 2-½ and smaller be constructed in accordance with Annex G of ASME/ANSI B16.34-1988?

Reply (2): Yes.
Interpretation: 2-6

Subject: Paragraph 2.3.3; Fluid Thermal Expansion

Date Issued: October 5, 1989

File: B16-89-009

Question: If a pressure relief valve is used as the means of overpressure protection under para. 2.3.3 of ASME/ANSI B16.34-1988, is it required that the relief valve be manufactured and tested in accordance with one of the Sections of the ASME Boiler and Pressure Vessel Code, by a manufacturer holding the applicable Code Certificates?

Reply: This would depend upon the requirements of the purchaser of the B16.34 valve. Paragraph 2.3.3 assigns responsibility for providing means to assure that the pressure in the valve will not exceed that allowed to the purchaser. If the purchaser chooses a pressure relief valve as the means then it is also the purchaser's responsibility to designate which codes or regulation, if any, apply to the installed valve and concomitantly to the pressure relief valve, see para. 1.2.2.

Interpretation: 2-5

Subject: Paragraph 8.3.2.1; Ultrasonic or Radiographic Examination

Date Issued: May 29, 1989

File: B16-89-005

Question: Is it intended that the distance of coverage for the Special Class Examination for forgings under para. 8.3.2.1 be the same as for castings?

Reply: No. It is a requirement of paras. 8.3.2.1(a) and (b) that the entire cylindrical and ring sections be examined.
Interpretation: 2-4

Subject: Para. 6.1.5, Tables 3 and G3, Annexes A and G

Date Issued: May 21, 1990

File: B16-89-004

Question (1): Minimum wall thickness requirements are defined in ANSI B16.34-1981, para. 6.1.5 for the zone $1.33t_m$ from the weld end and for zone $t_m$ from the body neck. The intervening transition zone is required to be gradual. Is it required that the transition taper be external?

Reply: No, a transition, if used, may be either external or internal or a combination of both.

Question (2): In ANSI B16.34-1981, the minimum wall thickness tabulated for Class 4500 and 15 in. diameter is 11.64 in. and 295.7 mm. Are these tabular numbers correct?

Reply (2): No. This is a misprint that has been corrected in ASME/ANSI B16.34-1988. The correct value is 11.87 in. Metric dimensions are no longer used in B16.34.

Question (3): in ANSI B16.34-1981, is it a requirement that valve seat diameters be equal to (or greater than) the inside diameters of Annex A?

Reply (3): No. There are, however, user specification that require “full port” valves and reference Annex A as the definition for full port.
Interpretation: 2-3

Subject: Para. 8.3.2.2; Surface Examination

Date Issued: May 30, 1990

File: B16-89-003

Question: Under ASME/ANSI B16.34-1988, para. 8.3.2.2, is it permissible, for Special Class valves to perform any or all of the required surface examinations either prior to or after machining?

Reply: Yes, provided that the required examinations take place, as required by para. 8.2, after any required heat treatment.

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Interpretation: 2-2

Subject: Para. 8.4.2; Weld Repair

Date Issued: May 29, 1989

File: B16-89-002

Question: Does B16.34 set limits on the extent of weld repair that may be performed on castings for Standard Class, Special Class or Limited Class valves?

Reply: No.
Interpretation: 2-1

Subject: Table 1; Materials
Date Issued: May 17, 1990
File: B16-89-001

Question (1): is there an error in Table 1 in that ASTM A 351-CG8M is not listed?

Reply (1): No.

Question (2): Does a valve with a valve body made of ASTM A 351-CG8M comply with the requirements of ASME/ANSI B16.34-1998?

Reply (2): No.

Question (3): Can new materials be added to Table 1?

Reply (3): Yes. This can be done at the next revision or when an Addenda is prepared. In order to facilitate the inclusion of new materials, it is recommended that the requester provide the Committee with the data needed to establish pressure-temperature ratings as provided in Annex F.

Interpretation: 1-39

Subject: Paragraph 2.1.5(b); Valves Fabricated by Welding
Date Issued: September 18, 1986
File: B16-86-003

Question: Does a fabricated valve conforming to the requirements of ANSI B16.34-1981 have to meet the requirements of paras. 2.1.5(a) and (b)?

Reply: Yes.
Interpretation: 1-38

Subject: Table 2; Pressure-Temperature Ratings

Date Issued: November 7, 1985

File: B16-85-004

Question: Why does ANSI B16.34-1981 limit the ASTM A351-CN7M to a temperature rating of 300° F?

Reply: For the purpose of establishing pressure-temperature ratings, Annex F of B16.34 requires that allowable stress and yield strength be obtained from referenced ASME Boiler and Pressure Vessel Code documents. The pressure-temperature ratings for ASTM A351-CN7M in B16.34 were based on data published as ASME Boiler and Pressure Vessel Code case N214-2. This Code Case, now annulled, provided data only to 300° F. A B16 action to extend the temperature range cannot be undertaken until one of the reference Code Sections publishes the required data. (For the procedure for inclusion of new materials in the Code see, for example, Appendix A-75 of ASME Boiler and Pressure Vessel Code Section I.)

Interpretation: 1-37

Subject: Paragraph 7.3; Surface Protection

Date Issued: July 16, 1985

File: B16-85-011

Question: Is it the intent of ANSI B16.34 to permit fusion bonded coatings to be applied to internal valve surfaces prior to the shell test?

Reply: No. Epoxy coatings, whether powder fusion bonded or applied as liquid, are coating materials capable of sealing against leakage, and application prior to the shell test is prohibited by the first sentence of para. 7.3.
Interpretation: 1-36

Subject: Paragraph 6.1.2; Inside Diameter

Date Issued: March 14, 1985

File: B16-85-002

Question: In ANSI B16.34 is it the intent of para. 6.1.2 to specify that a valve flow passage diameter be 90% of the basic inside diameter?

Reply: No. Requirements for flow passageway diameter are not included in B16.34. Other documents may have such requirements. (For example, in API 600 the flow passageway would have a diameter not less than that specified in Annex A of B16.34.) The inside diameter is defined in para. 6.1.2 solely for the purpose of determining the required minimum wall thickness for B16.34. It should be noted that para. 6.1.7 places responsibility with the manufacturer to provide any additional thickness as may be required.

Interpretation: 1-35

Subject: Paragraph 6.4; Bolting

Date Issued: February 27, 1985

File: B16-84-014

Question: Is it acceptable under the requirements of ANSI B16.34 to use metric bonnet flange bolting when such bolting meets the chemical and physical requirements of the appropriate ASTM specifications and meets the strength requirements of ANSI B1.1?

Reply: No. Section 5 of ANSI B16.34 requires that ASTM materials be applied. Paragraph 6.4 requires that the bolting be threaded in accordance with ANSI B1.1
Interpretation: 1-34

Subject: Paragraph 6.4.2; Bolting

Date Issued: February 22, 1985

File: B16-84-020

Question (1): In ANSI B16.34, para. 6.4.2, what is the origin of the equation that requires the bolt stress to be less than or equal to 0.35 $S_a$ but not to exceed 7000 psi, based on a pressure equal to the pressure rating class designation?

Reply (1): The bolting rule in para. 6.4.2 that limits the bolt stress to 7000 is taken directly from ANSI B16.5, para. 6.9.6. This limitation is one that has been in use for decades for pipeline flanges. When a valve body flange acts also as a pipeline flange, the rules of para. 6.4.2 assure that the bolting area rules for line flanges are met.

Question (2): Why, in para. 6.4.1 of B16.34 is the bonnet or cover bolting on the same basis as in question (1) permitted to reach 9000?

Reply (2): Bonnet or cover bolting can be permitted higher stress valves [sic] than pipeline bolting because these bolts are not required to allow for pipeline loads in addition to pressure load.

Interpretation: 1-33

Subject: Paragraph 6.1.3; Inside Diameter

Date Issued: February 22, 1985

File: B16-84-017

Question: In the case of a small, high pressure buttwelding end globe valve, how is the value of $d$ determined for use in para. 6.1.3 of ANSI B16.34?

Reply: For all valve types, the diameter $d$ is determined as described in para. 6.1.2.
**Interpretation: 1-32**

Subject: Paragraph 6.4.2; Bolt Stress  
Date Issued: February 22, 1985  
File: B16-84-015

Question: In ANSI B16.34, para. 6.4.2, the equation limits bolt stress, based on a pressure equal to the pressure class rating designation, to 7000 psi. Since ASTM A193-B7 bolting has an allowable stress of 25,000 psi, why is the further requirement of 0.35 times the allowable bolt stress included?

Reply: The equation includes the 0.35 times allowable bolt stress expression because Table 1, Group 4, lists bolting materials that have allowable stress values less than 20,000 psi.

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**Interpretation: 1-31**

Subject: Paragraph 6.1.2; Basic Inside Diameter  
Date Issued: February 15, 1985  
File: B16-85-001

Question (1): In ANSI B16.34 para. 6.1.2, what is meant by “basic inside diameter”?

Reply (1): Basic inside diameter is the inside diameter in the vicinity of the valve flanged end or welding end that is used to establish the inspection wall thickness (see para. 6.1.1). In the case of a buttwelding end, it is the diameter at the buttwelding end exclusive of the welding end transition. (See ANSI B16.25 for transition details.) Note that in B16.25 the “basic inside diameter” is shown as a solid line with a dashed line illustrating a smaller inside diameter. Not shown, however, is a line that would illustrate a large “basic inside diameter.” Thus for a welding end, the basic diameter may equal, be larger than, or be smaller than the dimension shown in Annex A.

Question (2): Does B16.34, para. 6.1.2, specify a permissible 10% reduction in flow passage diameter using the diameters listed in Annex A?
Reply (2): No. Except for the requirements relating to end dimensions, para. 6.2 of ANSI 16.34 [sic] does not specify or place limits on flow passage diameters. The definition of inside diameter in para. 6.1.2 is solely for the purpose of establishing the wall thickness required by para. 6.1.1 for inspection purposes.

Interpretation: 1-30

Subject: Paragraph 7.2; Valve Closure Test

Date Issued: February 15, 1985

File: B16-84-013

Question (1): Does ANSI B16.34 para. 7.2 require that the valve closure test be performed with the motor actuator in place and operable if the valve is so equipped?

Reply (1): No.

Question (2): Is there a conflict between the requirements of para. 7.2 and the explanatory footnote 2?

Reply (2): No. Paragraph 7.2 specifies a test of the closure structure independent of any requirement for closure tightness. Footnote 2 emphasizes that the closure leakage requirements are service related and therefore outside the scope of B16.34.
Interpretation: 1-29

Subject: Section 5; Materials
Date Issued: January 12, 1985
File: B16-84-018

Question (1): May ASTM A743 or A744 materials be substituted for ASTM A351 materials for valves marked as complying with B16.34?

Reply (1): No.

Question (2): Will the B16 Committee responsible for B16.34 consider including ASTM A743 and A744 in the materials table of B16.34 for the next edition?

Reply (2): Yes; however, there is a procedural problem. In order to establish or confirm pressure-temperature ratings for new materials, Annex F of B16.34 requires allowable stress and yield strength data to be listed in one of the ASME Boiler and Pressure Vessel Code Sections shown therein. Presently A743 and A744 are not listed in any of these Sections (nor are they listed in any of the B31 Piping Codes). The B16 action cannot be completed until one of the reference Code Sections publishes the required data. For the procedure for inclusions of new materials in the referenced Code Sections see, for example, Appendix A-75 to A-80 of ASME BPVC Section I.
Interpretation: 1-28

Subject: Annex F; Pressure-Temperature Ratings

Date Issued: October 8, 1984

File: B16-84-007

Question (1): Shall a casting quality factor be applied to the applicable reference tabulated stresses when applying the rules of Annex F of ANSI B16.34-1981?

Reply (1): No. A word of caution is in order. Paragraph F1.1 states that the procedures of Annex F were used in the determination of pressure-temperature ratings for the Standard. Annex F is explanatory only and is strictly limited to the materials of the Standard. Conformance with all requirements of the Standard is necessary in order to apply the pressure-temperature rating shown in the various tables. Annex F is not a design procedure and is not intended for derivation of pressure-temperature ratings of other materials. When new materials are required for inclusion in ANSI B16.34, they require approval of the Committee.

Question (2): Will consideration be given to adding a sketch to ANSI B16.34-1981 in order to clarify the meaning of paras. 6.1.3 through 6.1.6?

Reply (2): Yes.
Interpretation: 1-27

Subject: Paragraph 6.1.5; Contours at Weld Ends

Date Issued: October 4, 1984

File: B16-84-006

Question: In ANSI B16.34-1981, para. 6.1.5, what is the reason for including the sentence, “In no case shall the thickness be less than 0.77 t_m at a distance of 1.33 t_m from the weld end?

Reply: This sentence establishes the position of an imaginary plane separating the valve end weld preparation from the valve nozzle transition and also sets a minimum wall thickness requirement for the transition. Weld preparation requirements are given in para. 6.2.1 which, as a standard, refers to ANSI B16.25. The dimensional requirements of ANSI B16.25 include those for a weld preparation transition region which is defined as 2 times the pipe minimum thickness (see Fig. 1 of ANSI B16.25). This weld preparation transition was established so that the validity of stress intensification factors listed in various piping codes (for example, APPENDIX D of ANSI/ASME B31.3 or ND-3000 of the ASME Boiler and Pressure Vessel Code, Section III, Subsection ND) is not compromised.

The valve minimum wall thickness is approximately 1.5 times that which is required of connecting pipe (see Annex F1.3 of ANSI B16.34). Using ANSI B16.34 terminology, the ANSI B16.25 weld preparation transition region extends, from the valve weld ends, a distance of 2.2/1.5 or 1.33 times the valve minimum wall thickness.
Interpretation: 1-26

Subject: NDE Requirements
Date Issued: October 8, 1984
File: B16-84-003

Question (1): Does ANSI B16.34-1981 address internal discontinuities that may be expected in a forging or casting for a Standard Class valve which is subsequently subjected to nondestructive examination?

Reply (1): No.

Question (2): Does ANSI B16.34 set maximum acceptable NDE indications which will approve the use of a Standard Class valve?

Reply (2): No.

Question (3): In the case of a B16.34 Standard Class valve which has been subsequently subjected to NDE, if the results are beyond the Section 8 acceptance criteria, can this be a reason for rejection as a Standard Class valve?

Reply (3): No.

Question (4): Will the ASME B16 Committee approve the use of a Standard Class valve which has been subject to nonrequired NDE?

Reply (4): No. The ASME does not approve, certify, or otherwise endorse products for any reason.

Question (5): For Special Class valves, does B16.34 have acceptance criteria for NDE of those areas beyond those delineated as requirements in Figs. 6 through 14?

Reply (5): No.
Interpretation: 1-25

Subject: Paragraph 2.1.5(2); Variances

Date Issued: October 8, 1984

File: B16-83-011

Question (1): In para. 2.1.5(2)(a) of ANSI B16.34-1977, do the requirements apply to both flanged and Standard Class buttwelding end valves?

Reply (1): Yes. (Note: Flanged end valves are Standard Class only.)

Question (2): Does para. 2.1.5(2)(a) of ANSI B16.34-1977 prohibit valves of size NPS 6 and smaller from being fabricated by welding?

Reply (2): No.

Interpretation: 1-24

Subject: Section 8; NDE Requirements

Date Issued: October 31, 1983

File: B16-83-009

Question (1): What are the dimensions for an indication to be considered relevant under the acceptance standard for liquid penetrant examination of ANSI B16.34?

Reply (1): ANSI B16.34 does not use the concept of relevant indications. Instead, it defines maximum acceptable dimensions for indications.

Question (2): What is the ANSI B16.34 liquid penetrant examination acceptance standard for relevant indications in any 6 sq in. of surface area?

Reply (2): The acceptance criteria for indications are stated in Annex D. There are no area requirements as defined in the question.
Interpretation: 1-23

Subject: Table 1; Materials

Date Issued: October 28, 1983

File: B16-83-005

Question: In Material Group 3.1 of ANSI B16.34, why are austenitic materials and nonferrous materials listed together?

Reply: Material groups are used to gather together materials having generally similar mechanical strength properties, in the applicable temperature range, for the purpose of assigning pressure-temperature ratings.

Interpretation: 1-22

Subject: Materials

Date Issued: August 24, 1983

File: B16-83-012

Question: Why is AISI 1018 carbon steel material not included in ANSI B16.34 Table 1, List of Materials Specifications?

Reply: AISI 1018 is not included as an ANSI B16.34 material because it is not listed in the ASME Boiler Pressure Vessel Code Sections referenced in B16.34, Annex F. The Codes are the source for allowable stress and yield strength, the data required to determine pressure-temperature ratings.
**Interpretation: 1-21**

Subject: Table 3; Wall Thickness  
Date Issued: July 15, 1983  
File: B16-83-023

**Question:** What are the requirements of ANSI B16.34 for minimum wall thickness for the special case of a valve body made in the form of 2 torispherical or ellipsoidal halves bolted together with body run or nozzle ports offset from the center of each half, and having the inside diameter of the 2 halves greater than 1.5 times the nozzle port diameter?

**Reply:** For all valves, the required minimum wall thickness, excluding body neck regions, is found in Table 3 of ANSI B16.34, utilizing the definition of inside diameter \(d\) of para. 6.1.2. This paragraph defines a minimum valve body flow passage diameter for this purpose and restricts its value for venturi geometries so as to tend to provide for loads that may be transmitted by the attached piping. Other valve body configurations, for example those described in the inquiry, may have a closed geometry that tends to assist in accommodating piping loads. In all cases, however, para. 6.1.7 applies, making it the responsibility of the manufacturer to determine when additional metal thickness beyond the minimum value is required.

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**Interpretation: 1-20**

Subject: Paragraph 6.4; Bolting  
Date Issued: June 13, 1983  
File: B16-83-003

**Question:** May bolting with thread forms other than ANSI B1.1 be used for joining bonnet flanges for valves marked as meeting the requirements of ANSI B16.34?

**Reply:** No. Paragraph 6.4 of B16.34 specifies only ANSI B1.1 bolting.
Interpretation: 1-19

Subject: Paragraph 6.7; Wafer Valves

Date Issued: June 24, 1983

File: B16-82-025

Question: Under ANSI B16.34-1981, are the requirements for minimum wall thickness for butterfly valves applicable only to wafer or flangeless types as described in para. 6.7 to the exclusion of butterfly valves having a flanged center body joint?

Reply: No. Paragraph 6.1.1 specifies requirements for valves without qualification as to variety. Paragraph 6.7 identifies requirements for a general valve body category, one that includes designs that are frequently furnished with an elastomer insert which spans the wafer body and also functions as a flange gasket. Butterfly valve body designs having a flanged center body joint are required to meet the appropriate wall thickness requirements of Section 6. For those valve bodies, the bolting requirements of para. 6.4.3 are applicable.

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Interpretation: 1-18

Subject: Paragraph 7.1; Shell Test

Date Issued: June 13, 1983

File: B16-82-024

Question: Is hydrostatic testing of individual pressure containing parts after final machining acceptable under ANSI B16.34-1981 if sections of the fully assembled valve body will not be initially exposed to the test pressure because the valve design incorporates a sleeve or lining?

Reply: No. Paragraph 7.1 requires that “each valve shall be given a shell test.” ANSI B16.34 does not prohibit shell testing of individual parts but does require a shell test of the finished valve assembly.

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Interpretation: 1-17

Subject: Paragraph 6.1.5; Weld Ends

Date Issued: May 25, 1982

File: B16-81-032

Question (1): Why does ANSI B 16.34-1981, para. 6.1.5, require a minimum wall thickness of 0.77 $t_m$ in the nozzle transition zone that lies between 1.0 $t_m$ from the body neck and 1.33 $t_m$ from the end of the weld preparation?

Reply (1): This requirement ensures that the nozzle transition can adequately support the maximum pressure-temperature rating associated with the minimum wall thickness used for the valve design.

Question (2): For special cases, for example the attachment of a buttwelding end valve to thin walled pipe, is it permissible under ANSI B16.34-1981 to use a valve nozzle transition wall thickness less than the 0.77 $t_m$ valve required by para. 6.1.5?

Reply (2): No. If, however, a valve manufacturer elects to use the valve nozzle transition thickness as a design starting point, he may work backwards to establish a minimum wall thickness based on this value, set pressure-temperature ratings accordingly (see para. 6.1.4), mark the valve appropriately (see para. 4.1.3), meet all other requirements of the Standard and designate an applicable intermediate rating, and the valve could be designated as meeting the requirement of ANSI B16.34-1981.
Interpretation: 1-16

Subject: Paragraph 2.1; Pressure-Temperature Ratings

Date Issued: April 30, 1982

File: B16-82-031

Question: Paragraph 2.1 of ANSI B16.34-1981 requires bonnet bolting to be adequate for the 100°F pressure rating. Having met this requirement, is it permissible under B16.34 to use bonnet bolting material that may not be adequate for pressure ratings (see Section 2) at temperatures above 100°F?

Reply: Yes, provided that the bolting material meets the requirements of clause 5.1 and that the limiting design pressure-temperature rating conditions are marked on the valve as required by para. 4.1.8.

________________________________________________________________

Interpretation: 1-15

Subject: Paragraph 6.1.2; Inside Diameter

Date Issued: April 30, 1982

File: B16-82-030

Question: Under ANSI B16.34-1981, what method is used to determine the minimum wall thickness for the special case of a full ball valve body.

Reply: For all valves, the required minimum wall thickness is found in Table 3, utilizing the definition of inside diameter \( d \) of para. 6.1.2. This paragraph defines a minimum valve body flow passage diameter for this purpose and sets restrictions on its valve for venturi geometries so as to tend to accommodate for loads transmitted by attached piping. For other valve body configurations, such as those for full port ball valve bodies, the geometry effect tends to assist in piping load accommodation. In all cases however, para. 6.1.7 applies, making it the responsibility of the manufacturer to determine when additional metal thickness beyond the minimum value is required.
Interpretation: 1-14

Subject: Paragraph 8.3.11 [sic]; Radiographic Examination

Date Issued: April 30, 1982

File: B16-82-029

Question: Under ANSI B16.34-1977, para. 8.3.1.1 defines the cast valve body sections for which radiographic film coverage is required by the distance “A,” illustrated typically in Figs. 6 through 11. Paragraph 8.3.2.1 sets requirements for the forged valve body sections for which ultrasonic examination coverage is required. With reference to Figs. 6 through 11, is it required that the ultrasonic examinations of the reference cylindrical sections of forgings be limited to only dimension “A”?

Reply: No. Paragraph 8.3.2.1 requires that the full cylindrical section referenced be ultrasonically examined including any distance greater than dimension “A.”

Interpretation: 1-13

Subject: Paragraph 5.1; Materials

Date Issued: April 22, 1982

File: B16-82-028

Question: Does the ANSI B16 Committee have test data for ASTM A216 WCA/WCB physical properties for ANSI B16.34 applications between –20°F and 32°F?

Reply: No. The reference source for material properties is the ASME Boiler and Pressure Vessel Code as described in Annex F of ANSI B16.34. Your attention, however, is called to the fact that ASTM A216 WCA is not included in ANSI B16.34.
Interpretation: 1-12

Subject: Section 8; Special Class Valves

Date Issued: March 8, 1982

File: B16-82-027

Question: In ANSI B16.34, Special Class valves are required to meet the nondestructive examinations of Section 8 and may then assume higher pressure-temperature ratings than Standard Class valves. In view of this higher rating, are there any further application limits placed on Special Class valves?

Reply: No. ANSI B16.34-1981 establishes basic requirements for valve design with safety as a major consideration. However, the Standard is not a valve design handbook, as para.6.1.7 places responsibility with the manufacturer for design details and para. 5.3 cautions that the selection of materials for specific applications is not within the scope of the Standard.

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Interpretation: 1-11

Subject: Paragraph 6.1.2; Inside Diameter

Date Issued: March 8, 1982

File: B16-82-026

Question (1): In the case of a ball valve, when referring to the minimum diameter of flow passage, is the inside diameter $d$ of para 6.1.2 of ANSI B16.34-1977 the diameter of the hole through the ball, or the diameter of the body surrounding the ball?

Reply (1): The minimum diameter of the flow passage in this case would be the diameter of the hole in the ball. There are, however, additional requirements placed on the determination of the inside diameter $d$ in the reverenced paragraph, including that $d$ shall not be less than 90% of the basic diameter at the flanged end or welding end. The latter is an important restriction since the value of $d$ determines the minimum wall thickness requirements for para. 6.1.1. It should also be recognized that ANSI B16.34 is not a design handbook. The minimum wall thickness requirements are inspection dimensional requirements. Paragraph 6.1.7 cites examples where additional thickness may be required and places the responsibility for assuring structural adequacy solely upon the individual manufacturer.

Question (2): In regard to Table 3 of ANSI B16.34-1977, how are values to minimum thickness obtained for diameters intermediate to those for which tabulated values are given?

Reply (2): The required minimum wall thickness is established by interpolation.
Interpretation: 1-10

Subject: Partial Compliance

Date Issued: March 8, 1982

File: B16-81-017

Question: Does ANSI B16.34-1977 permit threaded end valves to be designated complying with selective requirements of the Standard, e.g. material, wall thickness, pressure rating?

Reply: No. There are no provisions in ANSI B16.34-1977 that permit selective designation for partial compliance. Paragraph 4.1.3 requires that valves bearing the designation “B16.34” conform to the Standard.

Interpretation: 1-9

Subject: Section 5; Materials

Date Issued: October 8, 1981

File: B16-81-016

Question (1): Have all carbon steel materials been reviewed by ANSI B16/SC-N for application in valves?

Reply (1): No. Only the more frequently used materials have been considered.

Question (2): Will ANSI B16/SC-N consider ASTM A696 Grade C as a candidate material for inclusion in ANSI B16.34?

Reply (2): Yes. When the Committee meets to consider future revisions, other materials will be considered.

Question (3): May thread end or socket weld end valves be designated or certified as complying with ANSI B16.34-1977?

Reply (3): No. The Standard covers only flanged and buttwelding end valves.

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**Interpretation: 1-8**

Subject: Intermediate Ratings

Date Issued: September 8, 1981

File: B16-81-015

Question: Is it permissible under ANSI B16.34-1977 to assign an intermediate Standard Class rating to a valve assembly fabricated by welding together a buttwelding end valve having the reference intermediate Standard Class rating, and flanges which have a Standard Class rating above the reference intermediate Standard Class rating?

Reply: No. This combination of components is not included in ANSI B16.34-1977.

**Interpretation: 1-7**

Subject: Paragraph 7.1, Shell Test

Date Issued: August 31, 1981

File: B16-81-014

Question: In ANSI B16.34-1977 is the intent of para. 7.1 that each assembled valve be given a shell test?

Reply: Yes.
Interpretation: 1-6

Subject: Paragraph 8.3; NDE Requirements

Date Issued: August 10, 1981

File: B16-81-013

Question: For Special Class valves made to ANSI B16.34-1977, is it required that surfaces of forged bodies and bonnets be examined by both magnetic particle (see para. 8.3.2.2) and liquid penetrant (see para. 8.3.2.3) methods?

Reply: No. During preparation of the 1977 edition, explanatory information contained in the 1973 edition was inadvertently omitted. It is intended that magnetic particle inspection requirements (see para. 8.3.2.2) be applied to forged ferritic materials and that liquid penetrant requirements (see para. 8.3.2.2) be applied to forged austenitic materials. See, for example, the corresponding description in paras. 8.3.1.2 and 8.3.1.3 for castings.

Interpretation: 1-5

Subject: Section 5; Materials

Date Issued: July 17, 1981

File: B16-81-012

Question: Is the material ASTM-A352-LCC covered by ANSI B16.34-1977?

Reply: No. However, the responsible committees do have this material under advisement and considerations are in progress that may lead to its inclusion in the next revision of ANSI B16.34. The next revision is expected to be published later this year. We suggest that you look for a publication announcement in Mechanical Engineering magazine or ANSI’s Standards Action.
Interpretation: 1-4

Subject: Section 8; Special Class Valves

Date Issued: May 13, 1981

File: B16-8-001

Question (1): Is it permissible under ANSI B16.34-1977 to convert a Standard Class valve to a Special Class valve by simply successfully completing the nondestructive examination required for Special Class?

Reply (1): ANSI B16.34 neither permits nor prohibits the conversion of a Standard Class buttwelding end valve to a Special Class buttwelding end valve by successful completion of the required nondestructive examination requirements and by complying with the appropriate marking requirements. This, however, shall be done only by the original valve manufacturer since his name is included on the valve and identification plate marking. Furthermore, there may be construction details of which only the original valve manufacturer may have knowledge that could restrict the valve rating to that of Standard Class.

Question (2): For intermediate ratings under ANSI B16.34-1977, are the nondestructive examination requirements the same as those for Special Class?

Reply (2): Buttwelding end valves with intermediate ratings under ANSI B16.34-1977 may be either Standard Class or Special Class Those valves designated as Special Class must comply with all the requirements of Special Class including nondestructive examination requirements.
Interpretation: 1-3

Subject: Paragraph 6.1.6; Local Stress

Date Issued: May 13, 1981

File: B16-81-003

Question (1): In ANSI B16.34-1977, para 6.1.6 what is meant by local area?

Reply (1): Local areas are those areas in a valve body for which B16.34-1977 allows the body wall thickness to be less than the minimum wall thickness $t_m$. In effect, there is allowance for locally stressed areas in the valve body where the local membrane stress is limited to approximately 1.1 times the basic allowable stress.

Question (2): How are the boundaries for local areas calculated?

Reply (2): The boundary limits for local areas are calculated as described in para 6.1.6.

Question (3): How do local area considerations apply to valve body necks?

Reply (3): Local area considerations are applicable over an entire valve body (see para. 6.1.6). In the case of valve body necks (see para. 6.1.3), the local area considerations are applicable only in those instances when the thickness requirements of para 6.1.6(b) permit.

Question (4): Are the requirements of ANSI B16.34-1977 design requirements?

Reply (4): No. ANSI B16.34-1977 sets minimum requirements. It is the responsibility of the manufacturer to assure an adequate total valve design and at the same time satisfy ANSI B16.34-1977 minimum requirements for those valves listed to be in accord with the Standard.
Interpretation: 1-2

Subject: Paragraph 5.1; Materials

Date Issued: April 1, 1981

File: B16-81-008

Question: For valves manufactured in accordance with ANSI B16.34-1977, what pressure-temperature rating can be used for ASTM A351, Grade CN7M, material?

Reply: ANSI B16.34 is limited to those materials specifically referenced therein (see para. 5.1). Annex F, para F1.1, notes that the procedures described apply to determination of pressure-temperature ratings for the Standard. It does not extend the method to other materials. Alloy ASTM A351, Grade CN7M, is not presently covered by ANSI B16.34 and therefore cannot be assigned a B16.34 pressure-temperature rating.

The B16 Committee is currently considering the inclusion of ASTM A351, Grade CN7M, into the next edition of B16.34. This is scheduled for publication later this year. The B16 Committee does not comment on design calculations. Therefore, a judgment cannot be rendered as to the validity of pressure-temperature ratings for materials not included in the scope of ANSI B16.34-1977.

________________________________________________________________
Interpretation: 1-1

Subject: Paragraph 6.4.2; Bolting

Date Issued: March 13, 1981

File: B16-81-010

Question (1): Is the bolting stress of 7000 psi given in para. 6.4.2 of ANSI B16.34-1977 a design requirement or a flange bolt-up requirement?

Reply (1): The 7000 psi stress is a minimum requirement for design purposes.

Question (2): May the pressure-temperature rating procedure described in Annex F of ANSI B16.34-1977 be used for rating bolting materials?

Reply (2): Paragraph F1.1 explains that the rating method is presented to explain how the pressure-temperature ratings for the Standard were derived. Ratings for other materials are beyond the scope of B16.34-1977. Flange bolting requirements are given in paras. 5.1 and 6.4. Within the context of these requirements, it is the manufacturer’s responsibility to determine that the bolting material supplied is adequate for the assigned pressure-temperature rating and, if not, to follow the marking requirements of para. 4.1.8.