ASME B31.8

INTERPRETATIONS NO. 11

Replies to Technical Inquiries
September 1, 1993, Through January 31, 1999
Interpretations 11-1 Through 11-26

It has been agreed to publish intepretations issued by the B31 Committee concerning B31.8 as part of the update service to the Code. The interpretations have been asssigned numbers in chronological order. Each interpretation applies either to the latest Edition or Addenda at the time of issuance of the interpretation or the Edition or Addenda stated in the reply. Subsequent revisions to the Code may have superseded the reply.

These replies are taken verbatim from the original letters, except for a few typographical and editorial corrections made for improved clarity.

ASME procedures provide for reconsideration of these interpretations when or if additional information that the inquirer believes might affect the interpretation is available. Further, persons aggrieved by an interpretation may appeal to the cognizant ASME committee or subcommittee. As stated in the Statement of Policy in the Code documents, ASME does not "approve," "certify," "rate," or "endorse" any item, construction, proprietary device, or activity.

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B31.8

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Interpretation: 11-1

Subject: ASME B31.8-1995, Para. 833, Stresses from External Loads

Date Issued: April 20, 1995

File: B31-94-046

Question (1): Is para. 833 applicable to above ground piping only, or can it be applied to buried piping as well?

Reply (1): Paragraph 833 applies only to above ground piping.

Question (2): If para. 833 is applicable only to above ground piping, what is the proper method of combining stresses due to external loads on buried piping, and what are the acceptable limits of these stresses?

Reply (2): The B31.8 Code does not address combined stresses for buried pipelines.

Interpretation: 11-2

Subject: ASME B31.8-1995, Para. 841.244, Arc Burns

Date Issued: April 20, 1995

File: B31-94-049

Question: For a series of pipe stringers operating below 40% of SMYS, the 20% solution of ammonium persulfate test on ground out arc burned areas shows blackened spots indicative of metallurgical notches. If ultrasonic testing shows that the remaining wall exceeds the minimum wall strength or if the pipe is rehydrostatically tested, would this pipe be suitable for gas transmission under the B31.8 Code?

Reply: The B31.8 Code does not address the treatment of arc burns on pipe operating at a hoop stress less than 40% of the SMYS.

Interpretation: 11-3

Subject: ASME B31.8-1995, Para. 841.24, Notches

Date Issued: April 20, 1995

File: B31-94-050

Question: ASME B31.8, para. 841.24 required that "notches" must be prevented, eliminated, or repaired in pipelines and mains to operate at a hoop stress of 20% or more of the specified minimum yield strength. Does this requirement also apply to metallurgical notches?

Reply: Yes. The B31.8 Code does not make a distinction between "geometric notches" and "metallurgical notches."

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Interpretation: 11-4

Subject: ASME B31.8-1995, Paras. 826.1 and 826.2, Inspection and Testing Welds

Date Issued: January 1, 1997

File: B31-95-033

Question: Hoop stresses are used to determine if qualifications of procedures and welders shall be in accordance with para. 823.1 or 823.2. Should hoop stress be similarly used to determine if weld inspections and/or tests of welds shall be in accordance with para. 826.1 or 826.2?

Reply: Yes.

Interpretation: 11-5

Subject: ASME B31.8-1992, Code Applicability

Date Issued: April 16, 1997

File: B31-94-060

Question: Does ASME B31.8-1992 apply to the design and fabrication of a barge to be used for the transportation of compressed natural gas?

Reply: No.

Interpretation: 11-6

Subject: ASME B31.8-1995, Paras. 841.114(b) and 841.854, Change in Location Class/Road Crossing

Date Issued: April 16, 1997

File: B31-95-049

Question (1): Does the Code address changes in design factor after a pipeline is constructed?

Reply (1): No.

Question (2): Does Table 841.114B apply when a road is built over or parallel to an existing pipeline?

Reply (2): No.

Question (3): Does the Code identify the limits beyond the pavement proper that the design factors for road crossings in Table 841.114B must apply?

Reply (3): No.

Question (4): Does the Code define the distance from the edge of the road where the design factors for "parallel encroachment" in Table 841.114B must apply?

Reply (4): No.

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Interpretation: 11-7

Subject: ASME B31.8-1995, Design of Slug Catchers

Date Issued: April 16, 1997

File: B31-96-038

Question: Would the B31.8 Code be applicable for the design of a slug catcher installed in a processing plant inlet receiving gas from a pipeline that contains free liquids?

Reply: Please see para. 802.11 for applicability of your situation.

Interpretation: 11-8

Subject: ASME B31.8-1992, Para. 856.1, Reconversion of Steel Pipe

Date Issued: April 21, 1997

File: B31-94-051

Question: Does para. 856.1 of ASME B31.8-1992 apply in any way to the re-conversion of a steel pipeline from gas transportation back to liquid transportation, the original function of the pipeline?

Reply: No.

Interpretation: 11-9

Subject: ASME B31.8-1995, Para. 833, Combined Stress Calculations

Date Issued: April 21, 1997

File: B31-94-052

Question: Do the requirements of para. 833 apply to buried pipe?

Reply: No. Please see para. 832.1.

Interpretation: 11-10

Subject: ASME B31.8-1995, Para. A842.223, Combined Stress

Date Issued: April 21, 1997

File: B31-95-040

Question (1): Is the word "longitudinal" correct in the last two sentences of para. A842.223?

Reply (1): No.

Question (2): If the word "longitudinal" is incorrect in these two sentences, should the word "combined" replace "longitudinal" in either or both sentences?

Reply (2): Yes, in both sentences.

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Interpretation: 11-11

Subject: ASME B31.8-1995, Para. 831.373, Minimum Design Metal Temperature

Date Issued: April 22, 1997

File: B31-94-025

Question: When a closure head is designed to the requirements of ASME B31.8, is the minimum design metal temperature determined by ASME Section VIII, Division 1, UG-20 including the requirements of UCS-66 when appropriate, or is the MDMT established under the provisions of B31.8?

Reply: The B31.8 Code does not utilize the term "minimum design metal temperature" or define a similar term with the same meaning.

Interpretation: 11-12

Subject: ASME B31.8-1992, Para. 851.43(d), Permanent Field Repair of Leaks and Non-Leaking Corroded Areas

Date Issued: August 26, 1997

File: B31-96-004

Question: The purpose of this Inquiry is to clarify my understanding of the method of repair referred to in para. 851.43(d). Surely if a nipple is welded over a small leak "to vent gas while welding" there is a possibility that the gas will ignite when the welding arc is struck, thereby causing a hazardous situation. If the leak were plugged with a tapered piece of wood, I could accept the philosophy behind this kind of repair.

Reply: This is an established and widely accepted practice for repairing *small* leaks. The gas is intentionally ignited and kept burning during the procedure, thus preventing an explosive mixture from developing.

Interpretation: 11-13

Subject: ASME B31.8-1995, Para. 842.51, Tie-Ins

Date Issued: December 31, 1997

File: B31-94-026

Question: When it is necessary to make a field repair to a damaged or defective portion of plastic pipe by cutting out and replacing a cylinder as required by paras. 842.45 and 852.52, is this the same as a tie-in section as described in para. 842.51 and therefore exempted from testing requirements except for testing the tie-in joints?

Reply: No. The section of pipe installed as a replacement of a damaged or defective portion of plastic pipe is not the same as a tie-in section as described in para. 842.51.

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Interpretation: 11-14

Subject: ASME B31.8-1995, Para. 811.1(d), Use of Aluminum Pipe

Date Issued: December 31, 1997

File: B31-94-061

Question (1): Does the reference to aluminum structure in Appendix K mean that aluminum pipe is qualified for use by the rules of B31.8?

Reply (1): No.

Question (2): If not, can aluminum pipe be qualified for use by the provisions of 811.1(d)?

Reply (2): Yes.

Question (3): If the reply to Question (1) or (2) is yes, must the pipe be manufactured in accordance with ASTM (or equivalent) specification?

Reply (3): No.

Question (4): If the reply to Question (1) or (2) is yes, do the requirements in Chapter II apply?

Reply (4): No.

Question (5): If the reply to Question (1) or (2) is yes, do the welding requirements in Chapter IV apply?

Reply (5): No.

Interpretation: 11-15

Subject: ASME B31.8-1995, Clarification of Specified Strength of Fittings

Date Issued: December 31, 1997

File: B31-95-039

Question: Does ASME B31.8 allow a SMYS of 42,000 psi to be used for ASTM A 234 Grade WPB fittings on the basis of materials tests?

Reply: No. The specified minimum yield strength properties are established by the applicable component material, and product form specifications. Refer to para. 831.3 for applicable fitting specifications. Refer also to Appendices B and C for applicable material and product form specifications.

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Interpretation: 11-16

Subject: ASME B31.8-1995, Para. 831.32, Special Fittings

Date Issued: December 31, 1997

File: B31-96-003

Question: According to the stipulation of para. 831.32, "When special cast, forged, wrought, or welded fittings are required to dimensions differing from those of regular shapes specified in applicable American National and MSS Standards, the provisions of para. 801.4 shall apply." In fact, the para. 801.4 does not exist in the Code. What shall one do while using nonstandard-dimension fittings?

Reply: ASME B31.8-1995 states, "...the provisions of para. 831.36 shall apply."

Interpretation: 11-17

Subject: ASME B31.8-1995, Para. 841.121, Fabricated Assemblies

Date Issued: December 31, 1997

File: B31-97-010

Question: As defined in para. 841.121, are permanent above ground facilities designed to launch and receive pipeline pigs considered fabricated assemblies?

Reply: Yes.

Interpretation: 11-18

Subject: ASME B31.8-1995, Para. 841.231, Bends

Date Issued: December 31, 1997

File: B31-97-016

Question (1): When para. 841.231(b) expresses maximum deflection in an arc length equal to the outside diameter, does it mean that bends shall be made minimum every single length equal to the outside diameter?

Reply (1): No. See para. 841.231(c).

Question (2): Is it possible that the requirements of ASME B31.8 specify clearly the minimum distance between cold bends as a function of the pipe outside diameter, wall thickness, yield strength, or any other parameters?

Reply (2): No.

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Interpretation: 11-19

Subject: ASME B31.8-1995, Para. A842.221, Corrosion Allowance

Date Issued: March 12, 1998

File: B31-97-011

Question (1): Does the nominal wall thickness in the formula in para. A842.221 include corrosion allowance?

Reply (1): No.

Question (2): Does the formula in para. A842.221 restrict the use of corrosion allowance in designing offshore pipelines?

Reply (2): No.

Interpretation: 11-20

Subject: ASME B31.8-1995, Para. 840.42, Additional Protective Devices

Date Issued: March 12, 1998

File: B31-97-012

Question: In an area where the concentration of people has increased so the area has changed from a Location Class 1 to a Location Class 3, is it possible to install additional protective devices such as automatic shutdown valves in the line to seal off that portion of the line that was designated Class 3 and reclassify the line to a Location Class 2 on the basis that these additional safety measures would be an alternative to derating the pipe or installing heavier wall pipe?

Reply: No.

Interpretation: 11-21

Subject: ASME B31.8-1995, Table A842.22, Basic Design Factors

Date Issued: March 12, 1998

File: B31-97-034

Question (1): We inquire of your Committee the rationale of limiting the basic design factor for submarine pipelines to a universal value of 0.72.

Reply (1): The ASME B31.8 Committee is limited strictly to interpretation of the rules. ASME does not act as a consultant on the general application or on the understanding of the Code rules.

Question (2): Would the Committee consider a basic design factor of 0.80 to be appropriate for offshore pipelines?

Reply (2): No.

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Interpretation: 11-22

Subject: ASME B31.8-1992, Extruded Pipe

Date Issued: July 6, 1998

File: B31-94-002

Question: In Table E1 of the B31.8-1992 Edition, which stress intensification factors apply for extruded outlets covered in Appendix F?

Reply: The appropriate factors are those shown for extruded welding tee unless extrusions meet requirements of a welding tee per ANSI B16.9.

Interpretation: 11-23

Subject: ASME B31.8-1995, Mill Certificates

Date Issued: July 6, 1998

File: B31-97-023

Question: Does ASME B31.8 require mill (material) certificates (chemical composition) for line pipe and its components to be provided as part of the specification?

Reply: No.

Interpretation: 11-24

Subject: ASME B31.8-1995, Safety Corridor for Gas Pipeline

Date Issued: July 6, 1998

File: B31-97-057

Question: Does the ASME B31.8 Code define the minimum clearance between a pipeline and a building intended for human occupancy? That is, does it specify a "safety corridor?"

Reply: No.

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Interpretation: 11-25

Subject: ASME B31.8-1995, Appendix F, Extruded Headers

Date Issued: July 13, 1998

File: B31-96-042

Question (1): May a portion of an extruded header located outside of the zone of reinforcement have a thickness less than *T*, but greater than or equal to *t*, as defined in Figures 3 and 4 of Appendix F?

Reply (1): ASME B31.8-1995 is titled *Gas Transmission and Distribution Piping Systems.* Appendix F of ASME B31.8-1995 is intended as a nonmandatory guide to engineers using the Code in their day-to-day workings on gas piping systems. A manufacturer of fittings should be designing fittings to the codes written specifically for that purpose: ASME B16.5 and MSS-SP75.

Question (2): Do the dimensions of the reinforced zone as defined in Figures 3 and 4 of Appendix F apply in a plane transverse to the axis of the run or carrier pipe?

Reply (2): ASME B31.8-1995 is titled *Gas Transmission and Distribution Piping Systems.* Appendix F of ASME B31.8-1995 is intended as a nonmandatory guide to engineers using the Code in their day-to-day workings on gas piping systems. A manufacturer of fittings should be designing fittings to the codes written specifically for that purpose: ASME B16.5 and MSS-SP75.

Interpretation: 11-26

Subject: ASME B31.8-1995, Earthquake Design

Date Issued: January 5, 1999

File: B31-96-005

Question (1): Does ASME B31.8-1995 have any requirements or guidelines for earthquake design or safety verification of buried pipelines?

Reply (1): No.

Question (2): Does ASME B31.8-1995 have any requirements relating to the use of seismic safety valves to be used in urban areas?

Reply (2): No.

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