

Information Bulletin No. IB14-004

April 24, 2014

INTERPRETATION

Use of ASME Code Case 2695 in Alberta

Background

ASME Code Case 2695 allows the use of the ASME Boiler and Pressure Vessel Code (BPVC), Section VIII, Division 2 design rules for the construction of a pressure vessel to ASME BPVC, Section VIII Division 1. This Interpretation provides for the use of this ASME Code Case for the design of pressure vessels for use in the Province of Alberta.

This Information Bulletin IB14-004 supersedes IB11-017 issued on September 30, 2011.

Provisions

The ASME Code Case 2695 may be used for the design of a pressure vessel for installation in Alberta provided full and satisfactory compliance of the following:

1. All provisions of the ASME Code Case must be adhered to;
2. Code Case 2695 is allowed when used in conjunction with the 2011 or later edition of the ASME BPVC, Section VIII, Division 2. Because of significant revisions, ASME BPVC, Section VIII, Division 2 and addenda prior to the 2011 edition can not be used;
3. It is not permitted the use of ASME BPVC, Section VIII, Division 2 paragraphs which refer to the use of Part 5 when design rules are not provided for vessels or vessel parts (e.g. paragraphs 4.1.1.2; 4.1.1.5; 4.1.5.1; 4.5.2.2; etc.);
4. A written User's acceptance for the use of the Code Case shall be provided with a design submission;
5. A User Design Specification (UDS)¹ shall be prepared. Among other details (e.g., Paragraph UG-22 and Appendix KK), the UDS shall clearly define the pressure vessel parts to which this code case is applied. The UDS shall be reviewed and certified by a Professional Engineer who meets the requirement of Section 1(2) of the Pressure Equipment Safety Regulation. The UDS shall be included in a design submission for registration;
6. The pressure vessel design shall be reviewed and certified by a Professional Engineer who meets the requirement of Section 1(2) of the Pressure Equipment Safety Regulation;
7. The code case number shall be shown on drawings submitted for registration and the drawings shall also clearly identify to which pressure vessel parts this Code Case applies. Also, drawings shall provide information what notification will be included on

¹ Note: Non-mandatory Appendix KK of ASME BPVC, Section VIII, Div. 1 may be used as a guide for preparing a UDS.

the Manufacturer's Data Report under Remarks. This notification needs to list all pressure vessel parts designed using this code case. These two requirements may be combined in one note on the drawing submitted for registration;

8. When cyclic service is specified in the UDS, fatigue evaluation may be conducted in accordance with Part 5 of ASME BPVC, Section VIII, Division 2. Two significantly different fatigue analysis methodologies are included in Part 5 of the Code with one being the alternative to the other. Until such time that it can be ascertained that one method will provide more accurate results consistently, should fatigue loading be expected, analyses shall be carried out using both methods and the more conservative result will govern; and
9. Pursuant to sections 14 and 15 of the Pressure Equipment Safety Regulation, the drawings, calculations, specifications and other information to register the design of a pressure vessel must be submitted to ABSA's Design Survey for review. Acceptable designs will be registered as Alberta Limited Designs (ALD)².

Following a pressure vessel designed in accordance with this Code Case being put into service, the following provisions also apply:

- a) ABSA Safety Codes Officer must be notified before the owner commences any repair or alteration of a pressure vessel designed in accordance with this Code Case;
- b) For a pressure vessel built to this Code Case, the equipment record shall be permanently kept and, in the case of change of ownership, shall be transferred to the new owner as required under Section 36(3) of the Pressure Equipment Safety Regulation;
- c) The new owner shall verify and confirm the acceptability of the alternative rules per Code Case 2695 to which the vessel was originally constructed; and
- d) For vessels in cyclic service, a record of the cyclic history of the pressure vessel during operation shall additionally be in place as it is required by the company Pressure Equipment Integrity Management System.

The application of this Code Case shall be assessed as detailed above when the pressure vessel design is being submitted to ABSA for registration.

<original signed by>

K. T. Lau, Ph.D., P.Eng.
Administrator and Chief Inspector
Pressure Equipment Safety
Province of Alberta

² Designs accepted and registered with Alberta Limited Design (ALD) registration number typical would have additional conditions imposed including restrictions with respect to the number of pressure vessels which may be constructed to the registered design and/or relocation of pressure vessels built to the design. These design registration numbers take the form **ALD-YY-XXX**, where the middle two digits (YY) is a number for the year (e.g., 11 for 2011) when the design is registered and the last three digits is a sequential number for ALD issued that year.