AB-83a Guide for Completing Form AB-83

1.0 PURPOSE

To provide guidance for completing Form AB-83, *Pressure Piping Construction and Test Data Report*.

2.0 APPLICATION

The *Pressure Piping Construction and Test Data Report* is used for documenting new construction, repairs and alterations in Alberta for ASME B31.1, B31.3, B31.5, B31.9 and CSA Z662 pressure piping systems that are subject to the Safety Codes Act and Regulations. The form is not to be used for piping systems that are not subject to the Safety Codes Act and Regulations.

For pressure piping systems constructed, repaired altered outside Alberta for use in Alberta, Form AB-83F is to be completed.

3.0 GENERAL

Form AB-83 is required for documenting new construction, repairs and alterations and for certifying that the work was done in accordance with Alberta requirements. The methods of construction, repairs and alterations may be by welding, brazing, mechanical assembly or by bonding. Any welding and/or rework (such as machining) on the pressure components must be documented on Form AB-83. The latest version is posted on ABSA's website, http://www.absa.ca, under ABSA Form Directory.

An alteration is any change in the item described on the original Pressure Piping Construction and Test Data Report which affects the pressure containing capacity of the pressure retaining item. Non-physical changes such as a change in the design pressure or design temperature of a pressure retaining item are alterations. A reduction in minimum design temperature is also an alteration.

A repair is the work necessary to restore the pressure equipment to a safe and satisfactory operating condition, provided that there is no deviation from the original design.

4.0 INSTRUCTIONS

The following describes the information required for completing each item of Form AB-83. The numbers in these instructions correspond to the numbers on Form AB-83.

Front of Form AB-83 (See sample form page 5 of this document)

(1) Indicate if the work on the pressure piping system is shop or field construction.

(2) Indicate if the report is a final data report or partial data report.

When all code requirements have been met and the piping system or sub-assembly has been pressure tested, a final data report must be completed. A project may have multiple final data reports. An owner should clarify the requirement for a final or partial data report at the contract stage. A partial data report is completed when code work such as NDE, PWHT, or pressure testing are not completed. A partial data report is submitted to a company that is authorized by ABSA and takes responsibility for the completion of the incomplete code work and issuance of the final data report. A pressure test is a code requirement; therefore, it must be completed by a company that has a valid Certificate of Authorization Permit for the scope of work.

(3)(5) Indicate the primary contractor's or subcontractor's name and address. A primary contractor is the company that was awarded the contract by an owner. A subcontractor is the company that is hired by the primary contractor to do part of the work.

(4) Indicate the owner's job number.

(6)(7) Indicate the Certificate of Authorization Permit number and permit expiry date for the primary contractor or subcontractor as the case may be.

(8)(9) Indicate the primary contractor's name and address, if applicable, otherwise indicate N/A.

A subcontractor completing the AB-83 form and part A of the Certificate of Compliance, must provide the name of the primary contractor to whom the partial data report will be provided.

(10)(11) Indicate the primary contractor's Certificate of Authorization Permit number and permit expiry date, if applicable, otherwise indicate N/A.

(12)(13) Indicate the piping system owner's name, address and location of the installed piping system.

(14)(15) Indicate the owner's Certificate of Authorization Permit number and expiry date, if applicable, otherwise indicate N/A.

(16) Indicate the piping system design registration number, if applicable, otherwise indicate N/A.

The pressure piping PP number must be indicated if the overall internal volume of the pressure piping system exceeds 500 liters. If a subcontractor receives a contract for pressure piping work from a primary contractor or an owner and the internal volume of the contracted piping is less than 500 liters, the PP number is required if the overall volume of the pressure piping project exceeds 500 liters.

An owner's existing PP number must be indicated if an addition or repair or alteration is done at a site where the pressure piping system is previously registered by the owner or previous owner.

(17) Mark the box for the company responsible for the design. If the owner subcontracts the work to another company, the owner is responsible for the design.

(18)(19) Provide the registration number for the welding procedure(s) used and the name of the company that holds the registration. Indicate N/A if no welding procedures were used.

A registration number is a number issued by ABSA and starts with the prefix “WP”. The company’s WPS number should not be entered in this field.

(20) Provide the registration number for the owner’s welding procedures if any are used, otherwise indicate N/A.

Welding procedures used by a fabricator must be registered with ABSA in the fabricator’s name. A fabricator may use a WPS registered in the owner’s name if prior acceptance by ABSA is secured. A subsidiary company of a fabricator may use a WPS registered in the fabricator’s name provided the arrangement is described in the fabricator’s quality management system manual.

(21)(22) Indicate welding procedure specification number(s) for all welding procedures used. If there is insufficient space in (20) and/or (21) indicate the welding procedure specifications under Remarks on the back of Form AB-83. Indicate N/A if no welding procedures were used.

(23) Within the Code section, indicate the code edition used and mark the applicable box for ASME or CSA pressure piping code.

Note: Per IB10-006 Scope: Steam pipelines include pipelines intended to carry steam, steam and produced fluids, or recovered steam. There may be situations in which produced fluids (emulsion) meet the definition of expansible fluid and required steam pipelines design. The DESIGNER of the system is responsible to make this decision.

(24) Mark the service category for ASME B31.3 piping systems.

(25) Provide the applicable number(s).

(26) Indicate the fluid that the piping system is designed for.

(27) Indicate the design pressure of the piping system.

(28) Indicate the maximum and minimum design temperatures of the piping system.

(29)(30) Provide the test pressure and test medium (e.g. water, glycol, air, etc.), if applicable, otherwise enter N/A. If N/A, the responsibility for completing the pressure test must be indicated in the Remarks section. If the company responsible is not known indicate “pressure test to be done by others” in Remarks.

(31) Provide the material specification and grade for the pipe. If tubing is used, provide the material specification and grade.

(32) Indicate the corrosion allowance for the piping system, if applicable, otherwise enter 0.

(33) Provide the nominal pipe size and schedule for the pipe. If tubing is used, provide the tube outside diameter and nominal wall thickness.

(34) Provide the flange material and rating (e.g. A105N cl 600). If there are no flanges, enter N/A.

(35) Indicate the design PWHT and design preheat requirements (note that for some materials the codes require specific preheats).

(36) State the applicable type(s) of NDE. Standard abbreviations such as VT, RT, PT, MT, UT should be used. It is the responsibility of the owner's inspector to confirm all required examinations have been completed. Details of the examinations, such as the % of radiography, shall be included in a manner acceptable to the owner's inspector, or to the ABSA safety codes officer in the case of piping that must be inspected by the ABSA safety codes officer. If there is insufficient space in (36), describe the nondestructive examination(s) in Remarks on the back of Form AB-83.

The table from (25) to (36) may be reproduced on a separate sheet and attached to the Form AB-83 if the space provided in the form is not sufficient and/or additional information is included. If a separate sheet is used, specify the piping job no. on the sheet or indicate other information that links the separate sheet to the Form AB-83 for the piping job. Indicate in the table on Form AB-83 or in Remarks to see a separate sheet.

Back of Form AB-83

(37) Mark the box and indicate the applicable data from the partial data report(s), if applicable, otherwise indicate N/A.

This table is for use by a primary contractor who subcontracts part(s) of the project to other contractor(s). The primary contractor must list and attach all of the partial data reports received from subcontractors. Final Forms AB-83 or AB-83F received from subcontractors need not be listed in this table.

(38) Complete according to the instructions shown. Include any additional information that will not fit into the applicable space(s) provided on the Form AB-83.

(39) Complete if the form is a partial data report, otherwise leave it blank.

(40) Complete if the form is a final data report, otherwise leave it blank. The job no. is to be the same as that indicated for the owner's job no. on the front of Form AB-83.

(41) The owner's inspector must sign the Certificate of Inspection for all ASME B31.1, B31.3 and B31.5 pressure piping systems. The owner or owner's representative must sign the Certificate of Inspection for ASME B31.9 pressure piping systems. The job no. is to be the same number as that indicated for the owner's job no. on the front of Form AB-83. For boiler external piping, the form must also be presented for signature to the ABSA safety codes officer who performed the inspection.

the pressure equipment safety authority

PRESSURE PIPING CONSTRUCTION AND TEST DATA REPORT

In accordance with the provisions of the PESR Section 31(1)

(1) Shop Construction- ☐ Field Construction- ☐

(2) Final Data Report- ☐ Partial Data Report- ☐

Complete both sides of this form

Complete both sides of this Form

1. Constructed By: (3) Owner's Job No: (4)
(Name of ABSA authorized primary contractor or subcontractor)
(5)
(Address)
Certificate of Authorization Permit No. AQP- (6) Expiry Date: (7)

2. Constructed For: (8)
(Name of primary contractor if different from above)
(9)
(Address)
Certificate of Authorization Permit No. AQP- (10) Expiry Date: (11)
(Required when the primary contractor undertakes some/all of the quality functions, e.g., NDE, PWHT, Tie-in, fabrication, hydro test, final assembly etc.)

3. Owner: (12)
(Name and address)
(13)
(Location of installation)
Certificate of Authorization Permit No. AQP- (14) Expiry Date: (15)
(Required when the owner undertakes some/all of the quality functions, e.g., NDE, PWHT, Tie-in, fabrication, hydro test, final assembly etc.)

4. Piping Design Alberta Registration No.: PP- (16)
(Required if aggregate piping volume is over 0.5m3)

5. (17) Design Responsibility: Owner ☐; Contractor ☐

6. WP No.: WP- (18) ; Company: (19) Owner's WP No. (If used): WP-(20)
(Alberta Registration No.) (Alberta Registration No.)
Spec No(s). used: (21) ; Owner's Spec No(s). (If used): (22)

7. Code: Edition: (23)

(24)

ASME B31.1 ☐		Non Boiler External Piping ☐		Boiler External Piping ☐	
ASME B31.3 ☐	Service Category:	Normal ☐	D ☐	M ☐	
		High Pressure ☐	Severe ☐	High Purity ☐	
ASME B31.5 ☐		ASME B31.9 ☐		CSA Z662 Steam Pipelines ☐	

Drawing No. Rev. No. Line No.	Fluid (Air/Stm. Etc.)	Des. Press. kPa	Des. Temp.^{0}C (Max. & Min.)	Pressure Test kPa	Test Medium	Pipe Mat'l Spec. & Grade	C.A. mm	Pipe NPS & Schedule	Flange Material & Rating	PWHT/ Preheat Temp. ^{0}C	NDE
(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)	(33)	(34)	(35)	(36)

Partial Data Reports certified by subcontractors are listed below and attached to this Data Report ☐ **(37)**

No.	Line No.	Spool No.	Dwg. No. (with Rev. No.)	Subcontractor (Name)	AQP No. (if from Alberta)	Expiry (if from Alberta)

Remarks: For partial data report provide information about the code work that was not completed by the subcontractor (e.g., hydrostatic test, PWHT etc.). For final data report provide information about the code work that was not completed by subcontractors and subsequently completed by the primary contractor (e.g., hydrostatic test of entire assembly, PWHT etc.)

(38)

Endorse certificate 'A' or 'B'

A. CERTIFICATE OF COMPLIANCE
Signed by the contractor when supplying this certificate as a

Partial Data Report **(39)**

We certify that the statements in this Data Report are correct and that materials, construction and workmanship of the piping fabrication conform to the registered quality system and the applicable Piping code(s).

Date: _____ _____
Contractor

_____ _____
Print Authorized Representative's Name Signature

This certificate is not valid unless it forms part of a Final Data Report signed by the Primary Contractor.

B. CERTIFICATE OF COMPLIANCE
Signed by the contractor when supplying this certificate as a

Final Data Report **(40)**

We certify that the statements in this Data Report are correct and that piping job no._____ described in this Data Report was constructed in accordance with the Province of Alberta Safety Codes Act and Regulations, and applicable ASME Piping Code(s).

Date: _____ _____
Contractor

_____ _____
Print Authorized Representative's Name
Signature

CERTIFICATE OF INSPECTION **(41)**

I, the undersigned, employed by _____ have verified that all required examination and testing has been completed, and inspected the piping described in this construction data report to the extent necessary to be satisfied that it conforms to all applicable examination requirements of the Code and of the engineering design, and state that, to the best of my knowledge and belief, the contractor has constructed this piping in accordance with the Alberta Safety Codes Act and Regulations. By signing this certificate neither the inspector nor his or her employer makes any warranty, expressed or implied, concerning the piping described in this construction data report. Furthermore, neither the inspector nor his or her employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Date: _____ Date: _____

_____ _____
Owner's Inspector Name (please print) ABSA Safety Codes Officer (please print) (BOILER EXTERNAL PIPING ONLY)

_____ _____
Owner's Inspector Signature ABSA Safety Codes Officer's Signature