



Technical Standards and Safety Authority
 345 Carlingview Drive
 Toronto, Ontario M9W 6N9
 www.tssa.org

Boiler External Piping Systems Installation and Test Data Report

Technical Standards and Safety Act
 Boilers and Pressure Vessels Regulation

- Shop Fabrication
 Field Installation/ Fabrication
 Partial Data Report
 Final Data Report
 (If box checked, send signed report with shipment to site)

NOTE: This report shall be completed and signed by the person responsible, in whole or in part, for the fabrication, installation, testing and inspection of the boiler external pressure piping system leaving a copy with the owner of the installation and forwarding the original to the TSSA Boiler and Pressure Vessel Safety Program.

Owner of Facility	Name and Street Address:
Location of Facility	Street Address:
Piping System Fabricator/Installer	Name and Street Address:
Design Responsibility	<input type="checkbox"/> Owner of Facility <input type="checkbox"/> Piping System Fabricator/Installer

Design Code: ASME B31.1 Boiler External Piping	Canadian Registration Number: _____	Design Pressure: _____ <input type="checkbox"/> psi <input type="checkbox"/> kPa
Design Temperature: Min _____ <input type="checkbox"/> °F <input type="checkbox"/> °C Max _____ <input type="checkbox"/> °F <input type="checkbox"/> °C	Welding Procedure(s) Registration #: _____	Fluid (steam, water, etc.): _____

Line # and/or Dwg #	Pipe Diameter (NPS/DN)	Pipe Schedule or Thickness	Piping Material Specification (including grade & type as applicable)	Flange Material and Rating	Corrosion Allowance (in/cm)	Type of Connection (Welded, Threaded, etc.)	NDE (If yes, include type)	PWHT/Preheat (Yes or No)

Appendix A Attached (for extra lines)

Welders Used:

Name of Welder:	Symbol:	Employer:	Expiry Date: (mm/dd/yyyy)	Process:

(Alternatively, the Contractor's list of welders may be attached) Appendix B Attached (for extra lines) Welding to be completed by others

Partial Data Reports Attached:

No.	Line # and/or Drawing #	Spool #	Subcontractor Name	Quality Program #	Expiration Date (mm/dd/yyyy)

Appendix C Attached (for extra lines)

Pressure Test(s):

Line # or Description:	Medium & Temperature (°F/°C)	Final Test Pressure (psi/kPa)	Duration	Remarks

Pressure test(s) by others

REMARKS: _____

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

CERTIFICATE OF COMPLIANCE

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 ASME B31.1 piping code.

Certificate of Authorization # _____ Expiry Date: _____

Print Name:	Signature:
Title:	Date:

CERTIFICATE OF INSPECTION

I, the undersigned, employed by _____ of _____ have verified that all required examination and testing has been completed, and inspected the piping described in this 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 Provincial 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 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 (mm/dd/yyyy):	Inspector Name (Print):	Inspector Signature:	Number:
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**Boiler External Piping Systems Installation and
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Appendix A – Additional Line Information
Technical Standards and Safety Act
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Owner of Facility	Name and Street Address:		
Location of Facility	Street Address:		
Piping System Fabricator/Installer	Name and Street Address:		
Canadian Registration Number:		Fluid (air, steam, etc.):	

Line # and/or Dwg #	Pipe Diameter (NPS/DN)	Pipe Schedule or Thickness	Piping Material Specification (including grade & type as applicable)	Flange Material and Rating	Corrosion Allowance (in/cm)	Type of Connection (Welded, Threaded, etc.)	NDE (If yes, include type)	PWHT/Preheat (Yes or No)



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Guideline

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Shop Fabrication
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 Final Data Report
(If box checked, send signed report with shipment to site)

NOTE: This report shall be completed and signed by the person responsible, in whole or in part, for the fabrication, installation, testing and inspection of the boiler external pressure piping system leaving a copy with the owner of the installation and forwarding the original to the TSSA Boiler and Pressure Vessel Safety Program.

Owner of Facility	Name and Street Address: (2)	
Location of Facility	Street Address: (3)	
Piping System Fabricator/Installer	Name and Street Address: (4)	
Design Responsibility	<input type="checkbox"/> Owner of Facility <input type="checkbox"/> Piping System Fabricator/Installer (5)	

Design Code: ASME B31.1 Boiler External Piping	Canadian Registration Number: (6)	Design Pressure: (7) <input type="checkbox"/> psi <input type="checkbox"/> kPa
Design Temperature: Min. (8) °F °C Max. (9) °F °C	Welding Procedure(s) Registration #: (10)	Fluid (steam, water, etc.): (11)

Line # and/or Dwg #	Pipe Diameter (NPS/Ø)	Pipe Schedule or Thickness	Piping Material Specification (including grade & type as applicable)	Flange Material and Rating	Corrosion Allowance (in/cm)	Type of Connection (Welded, Threaded, etc.)	NDE (If yes, include type)	PWHT/Preheat (Yes or No)
(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)

(21) Appendix A Attached (for extra lines)

Welders Used:

Name of Welder:	Symbol:	Employer:	Expiry Date: (mm/dd/yyyy)	Process:
(22)	(23)	(24)	(25)	(26)

(Alternatively, the Contractor's list of welders may be attached) (27) Appendix B Attached (for extra lines) Welding to be completed by others

PV 0000 (12/23/20) page 1 of 2 (28) Company Rep. Initial & Date: _____ A.I. Initial & Date: _____

Partial Data Reports Attached:

No.	Line # and/or Drawing #	Spool #	Subcontractor Name	Quality Program #	Expiration Date (mm/dd/yyyy)
(29)	(30)	(31)	(32)	(33)	(34)

(35) Appendix C Attached (for extra lines)

Pressure Test(s):

Line # or Description:	Medium & Temperature (°F/°C)	Final Test Pressure (ps/NPa)	Duration	Remarks
(36)	(37)	(38)	(39)	(40)

(41) Pressure test(s) by others

REMARKS: (42) _____

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

CERTIFICATE OF COMPLIANCE

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 ASME B31.1 piping code.

Certificate of Authorization # (43) Expiry Date: (44)

Print Name: (45)	Signature:
Title:	Date:

CERTIFICATE OF INSPECTION

I, the undersigned, employed by (46) of (47) have verified that all required examination and testing has been completed, and inspected the piping described in this 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 Provincial 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 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 (mm/dd/yyyy): (48)	Inspector Name (Print):	Inspector Signature:	Number:
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Guideline for completing the Boiler External Piping Systems Installation and Test Data Report

ASME B31.1 states that Boiler External Piping shall be considered as piping that begins where the boiler proper terminates at (1) the first circumferential joint for welding end connections, or (2) the face of the first flange in bolted flanged connections, or (3) the first threaded joint in that type of connection, and that extends up to and including the valve or valves required by ASME B31.1 paragraph 122.1.

Limits of Boiler External Piping systems can be found in Section I, Figures PG-58.2-1 through PG-58.2-6.

Item #	Description	Example
1a	Check if the piping system is fabricated in the shop or field.	
1b	Check if this is a Partial Data Report or a Final Data Report.	A signed partial data report is required for all shop fabricated piping and shall be shipped with and included with the final data report of the piping system at the installation site.
2	Provide the name and address of the facility owner.	
3	Provide the facility address if different from Item 2.	
4	Provide the name and address of the piping system fabricator/ installer as listed on the Certificate of Authorization.	
5	Select whether the design responsibility is by the owner of the facility or the piping system fabricator/installer.	
6	Canadian Registration Number provided by TSSA, identified in the registered documentation.	
7	Provide the Design Pressure as identified in the registered documentation. Identify the unit of measurement.	
8	Provide the Minimum Design Temperature as identified in the registered documentation. Identify the unit of measurement.	
9	Provide the Maximum Design Temperature as identified in the registered documentation. Identify the unit of measurement.	
10	Provide the Welding Procedure Registration Number identified on the registered Procedure Qualification Record.	WP-T1234.5
11	Identify the fluid type contained in the piping.	Steam, Air, etc.
12	Line number as identified on the registered drawing, line list, drawing number, or other means to identify line(s) being tested.	
13	Pipe diameter for the specific line number (create a new line for each diameter used). Identify the unit of measurement.	2" OD; 1-3/8" OD, 60.3mm OD, etc.
14	Pipe schedule/thickness for the specific line number.	Sch. 40,
15	Material specification of the piping used.	SA-106 Grade B
16	Material specification and rating of the flange material (if used).	SA-105N; 150#
17	Corrosion allowance of the piping.	0"
18	Type of connection for joining the pipe.	Welded, threaded, etc.
19	Non-Destructive Examination completed on the line number. Include the percentage of NDE completed. If none, state "N/A".	RT – 5%, PT – 100%, Visual, etc.
20	Post Weld Heat Treatment completed on the line number.	Yes or No
21	Select box if more lines are required and attach Appendix A.	
22	When connections are welded, list the name of the welder.	
23	Include the welder symbol to identify connections made by the individual. This is found on the upper right hand side of the Welder/Welding Operator Certificate.	This symbol is determined at the time of the welder certification, typically listed by the employer.
24	Employer of the welder.	



Boiler External Piping Systems Installation and Test Data Report Guideline

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25	Expiry Date of the Welder/Welding Operator Certificate.	If maintaining a Welder Log as allowed by ASME, CSA or the TSSA Code Adoption Document, state "Per ASME Section IX".
26	List the process used.	GTAW, SMAW, etc.
27	Select box if more lines are required and attach Appendix B. Select box if welding is to be completed by others.	When completed by others, "Partial Data Report" should be selected in Item 1b .
28	To be initialed and dated by the company representative and the AI.	
29	Include a Partial Data Report number.	1, 2, etc.
30	List the line item number from Item 12 that the Partial Data Report is associated with.	
31	List the spool number that the Partial Data Report is associated with (if applicable).	
32	List the subcontractors name that the Partial Data Report is associated with.	
33	List the quality program number from the subcontractor that the Partial Data Report is associated with.	QA 00000.
34	List the quality program expiration date from the subcontractor that the Partial Data Report is associated with.	
35	Select box if more lines are required and attach Appendix C.	
36	List all line numbers from Item 10 that are being pressure tested.	This may state "All lines", or specific to what lines are being tested. If more room is needed, Item 42 may be used to record other lines or information.
37	Include the test medium and temperature of the pressure test.	Nitrogen at Ambient Temperature, Water at 70°F, etc.
38	Record the final test pressure. Identify the unit of measurement.	
39	Record the total time the test was held for.	
40	Remarks are to include acceptability of the test.	Acceptable, No leaks, etc.
41	Select box if the final pressure test is to be completed by others.	When completed by others, "Partial Data Report" should be selected in Item 1b .
42	Include any remarks pertinent to the piping system.	This space may be used as additional space for Items such as 12-20, 36-40 , etc.
43	Number issued on the Certificate of Authorization for Boiler External Piping.	QA 00000.
44	Expiration date listed on the Certificate of Authorization.	
45	Print the name and title of the Manufacturer's Representative. To be signed and dated by the individual responsible.	
46	Authorized Inspection Agency	TSSA, ABSA, etc.
47	Location of the Authorized Inspection Agency	Ontario, Alberta, etc.
48	To be completed by the Authorized Inspector. Include the date of acceptance, name of the Authorized Inspector, signature of the Authorized Inspector, and Provincial, State, or National Board Commission Number.	