

Boilers and Pressure Vessels	Ref. No.: BPV-001-23
ADVISORY	Date: April 17, 2023

Subject: Alternate Process for Pressure Piping Inspection in Ontario

This advisory describes a voluntary alternate process to the existing inspection process for eligible piping fabrications and installations [referred to as piping systems in this advisory], which allows eligible piping contractors to inspect eligible piping systems and complete a "Alternate Piping Data Form" as an alternative to a TSSA inspection. This process will be available effective 1 May 2023.

This alternate process is ONLY applicable to jurisdictional piping fabricated and installed in the province of Ontario. Piping Contractors in Ontario, fabricating piping for other provinces or countries may require inspection by a Jurisdictional Inspector (TSSA). Piping systems under federal jurisdiction e.g. Indigenous lands and nuclear sites, do not qualify for this process.

1.0 Eligible Piping Contractors

To be eligible to participate in the alternate process as an eligible piping contractor, an entity must meet the following requirements:

- 1.1. Hold a valid TSSA Certificate of Authorization as required by clause 4.10.2.1 of CSA B51-19 as modified by section 1.20 of Code Adoption Document BPV-20-01 R1.
- 1.2. Apply to add alternate process inspections and submissions to the scope under their current Certificate of Authorization.
- 1.3. Add a supplement for this alternate inspection program to their current Quality Manual.
- 1.4. The Certificate of Authorization Holder must employ qualified personnel to perform inspections and complete Piping Systems Installation and Test Data Reports.
- 1.5. Clearly set out the responsibilities of the qualified personnel for the alternate piping process in the Quality Program Manual or Supplement.

2.0 Qualified Personnel

The qualified personnel performing inspections and completing the "Alternate Piping Data Form" must meet the following requirements:

- 2.1. Be an employee of the Certificate of Authorization holder.
- 2.2. Complete and pass the TSSA Regulatory Requirements training course (Module 1).
- 2.3. Either:
 - (1) Complete and pass the TSSA Piping Inspection training course (Module 2); or
 - (2) satisfy or hold at least one of the following requirements or certifications (limited by the scope of the Quality Program Manual or Supplement [1.5] :
- 2.3.1. API 510 and/or 570 certification.
- 2.3.2. CWB Weld Supervisors or CWB Level 1, 2 or 3 Weld Inspectors
- 2.3.3. CGSB Level II Examiner
- 2.3.4. Ontario Certified Refrigeration Technician – (limited to refrigeration systems only)
- 2.3.5. pass a National Board In-Service Course (IS) or Repair Course (R)
- 2.3.6. hold a National Board "Certified Individual" [NB-383]
- 2.3.7. hold a National Board "Pressure Equipment Inspector" [NB-438]
- 2.3.8. a degree in Engineering with at least 3 years of documented experience in the design, fabrication, or examination of industrial pressure piping

- 2.3.9. a diploma in Engineering Technology with 5 years documented experience in the design, fabrication, or examination of industrial pressure piping.
- 2.3.10. documented evidence of 10 years of work experience in the fabrication, installation and inspection of code piping systems.

3.0 Eligible Piping Systems

Most piping systems are eligible to apply for this alternate piping process, subject to the exclusions listed below. New fabrication or installations longer than 1,000 ft will require TSSA to be consulted prior to fabrication or installation to qualify for this process.

The following types of piping systems will not be eligible for this alternate piping process.

- 3.1. Refrigeration piping systems where refrigerant is A2, A3, B1, B2, B3, B2L.
- 3.2. Refrigeration piping systems where refrigerant is A1 or A2L and the design pressure is above 700 psi
- 3.3. Boiler proper piping
- 3.4. Boiler external piping or non-boiler external piping with
 - 3.4.1. superheated steam; or
 - 3.4.2. design pressure over 250 psi
- 3.5. Piping systems designed to B31.3 Normal Fluid service and other Piping Systems designed per B31.1 where any of the following conditions apply:
 - 3.5.1. design pressure is above 375 psi or design temperature is above 800°F.
 - 3.5.2. non-buried gaseous systems with Nominal Pipe Size over 12".
- 3.6. Piping systems designed for B31.3 Category M, Elevated temperature, and high-pressure fluid service as defined in B31.3
- 3.7. Lethal service systems as per owner's classification.
- 3.8. Hot tapping shall confirm to the current Code Adoption Document.

4.0 Application and Review Process

- 4.1. An individual meeting the requirements of qualified personnel shall inspect the subject piping and complete and submit the TSSA "Alternate Piping Data Form" (available on the TSSA website) on behalf of the piping submitter.
- 4.2. TSSA will review the submission, and if accepted, the director will sign the Alternate Piping Data Form, which will then constitute a Certificate of Inspection under section 9(4) of regulation 220/01
- 4.3. TSSA reserves the right, in its sole discretion and for any reason, to not accept the data report form submitted by the piping submitter and instead require a TSSA inspection for the piping system.

5.0 Fees

- 5.1. The fee for BPV alternate piping process are set out in the [TSSA BPV Fee Schedule](#), in which it is currently described as "Field Piping - Enhanced application for specific categories".