



## Boilers & Pressure Vessel Safety

# **Guidelines for the Registration of Welding/Brazing Procedures in the Province of Ontario**

### **1. Scope:**

This document contains guidelines for the registration of welding/brazing procedures in compliance with the Technical Standards and Safety Act 2000, Ontario Regulation for Boilers and Pressure Vessels 220/01, Code Adoption Document and CSA B51 Standard. In the Province of Ontario, welding and brazing procedures used in manufacture, installation, alteration or repair of a boiler, pressure vessel, fitting or piping shall be registered with Technical Standards and Safety Authority. The welding and brazing procedures shall conform to ASME Section IX code and the applicable Section of ASME Boiler and Pressure Vessel Codes or applicable ASME Code for pressure piping.

### **2. Documentation:**

2 sets of supporting documents in hard copy must be submitted with a [Piping, Welding, Brazing, Used Vessel Design Registration Application for a Canadian Registration Number \(CRN\) 09556](#).

Please note; only one copy of the documents are required when submitting electronically. Please see our electronic guidelines under "How to Submit" for further information.

The documents required, are listed below:

- Procedure Qualification Record (PQR) – hardcopy with the original ink signature of the Manufacturer's Representative
- Welding/Brazing Procedure Specification (WPS/BPS)
- Laboratories Test Reports
- Copy of PWHT chart (if PWHT was performed)
- Welder/Brazer/ Welding Operator Performance Qualification Certificate. A new form needs to be completed as long as the welder/brazer is not qualified to weld/braze the test coupon. If the welder/brazer is qualified, a copy of an existing valid Performance Qualification Certificate needs to be provided

### **3. Specifications:**

The PQR (Procedure Qualification Record) needs to document all essential and, when required, supplementary essential variables listed in ASME Section IX and the other applicable Sections of ASME codes for each welding process used during the welding of the test coupon. The PQR (Procedure Qualification Record) also needs to fully describe

the type and number of tests. The test results shall meet the requirements of the applicable ASME code.

The WPS/BPS (Welding/Brazing Procedure Specification) must describe all essential, nonessential and, when required, supplementary essential variables for each welding process used in the WPS. The ranges of essential and, when required, supplementary essential variables listed on the WPS/BPS must not exceed the values allowed by the applicable code. The WPS/BPS needs to reference also the supporting PQR(s). Any other information that may be helpful in making the weldment could be included in the WPS/BPS.

The Welder/Brazer/Welding Operator Performance Qualification Certificate needs to document all the essential variables for each welding process used, and the qualifying tests and their results. The Welder/Brazer/Welding Operator Performance Qualification Certificate must be signed by the Manufacturer's Representative who supervised the welder during the test and by the Authorized Inspector (TSSA Inspector for locations in Ontario).

#### **4. Forms:**

The PQR and WPS forms can be created by following ASME Section IX requirements or can be downloaded from the ASME website at:

<http://www.asme.org/kb/standards/bpvc-resources/asme-data-report-forms> .

The Welder/Brazer/Welding Operator Performance Qualification Certificate can be obtained from the local TSSA Inspector or can be downloaded from our website:

Welder/Welding Operator

<https://www.tssa.org/en/boilers-pressure-vessels/resources/Documents/2017-PV-09397.pdf>

Brazer/Brazer Operator

<https://www.tssa.org/en/boilers-pressure-vessels/resources/Documents/2017-PV-09398.pdf>

Guideline for completing the Welder/Welding Operator Performance Qualification Certificate:

<https://www.tssa.org/en/boilers-pressure-vessels/resources/Documents/GUIDELINES-FOR-COMPLETING-THE-WELDER-WELDING-OPERATOR-CERTIFICATE-FORM-PV-09397.pdf>