



REFERENCE SYLLABUS

FOR

CLASS "R" PRESSURE WELDER CERTIFICATE OF QUALIFICATION EXAMINATION





INTRODUCTION

A Pressure Welder “R” Certificate of Qualification (restricted) entitles the holder to complete a performance qualification test in accordance with any registered welding procedure specification while employed by an organization accredited by the ASME Boiler and Pressure Vessel Certification Program or an organization accredited by the National Board “R” Certificate of Authorization Program when that organization is contracted by a Technical Safety BC licensed contractor who must have a provision in their quality control manual to allow for this subcontracting process or hold the ASME or National Board Certificate of Authorization themselves.

To obtain a Class “R” Pressure Welder Certificate of Qualification an applicant must successfully pass a welding examination. The welding examination is a performance qualification test complying with Section 41 of the Power Engineers, Boiler, Pressure Vessel and Refrigeration Safety Regulation. This syllabus details the requirements and standards for the performance qualification test which an applicant for a Class “R” Pressure Welder Certificate of Qualification must pass.

ELIGIBILITY

An applicant for a Class “R” Pressure Welder Certificate of Qualification must:

- a) Be employed by a Contractor licensed in accordance with Section 60 of the Power Engineers, Boiler, Pressure Vessel and Refrigeration Safety Regulation, and,
- b) Provide evidence of previous pressure welding qualifications and experience from their Country of origin, Province or Territory and,
- c) Be employed by an organization in possession of a current National Board of Boiler and Pressure Vessel Inspectors “R” Certificate of Authorization, or
- d) Be employed by an organization in possession of a current ASME Certificate of Authorization.

An applicant for a Class “R” Pressure Welder Certificate of Qualification must complete and pass the performance qualification test outlined in this syllabus. The qualification is valid for a period up to 6 months after the certificate is issued and is only applicable to the employer named on the application for that specific job and site location.

EXAMINATION ADMINISTRATION

The Class “R” Pressure Welder Certificate of Qualification performance qualification test shall be administered by an organization accepted by Technical Safety BC as a “Recognized Test Administrator”. The “Examiner” (personnel) who administers the test shall meet the requirements outlined in the Recognized Test Administrator’s quality control system manual for qualification and experience.



APPLICATION TO UNDERTAKE EXAMINATION

The applicant shall submit a completed application form (FRM-1693) to a Recognized Test Administrator and pay the specified fee. The Recognized Test Administrator will provide confirmation of performance qualification testing dates and times.

Candidates must show government issued photo identification and provide proof that they meet the eligibility requirements outlined in this syllabus.

CLASS “R” PRESSURE WELDER CERTIFICATE OF QUALIFICATION EXAMINATION

A Class “R” Pressure Welder Certificate of Qualification examination must be administered in accordance with a Licensed Contractors Welding Procedure Specification registered with Technical Safety BC. Use of a Prequalified Welding Procedure Specification for the Class “R” is not permitted.

The Licensed Contractor who the Class “R” Pressure Welder Certificate of Qualification applicant is employed by will determine the specific performance qualification test required.

The performance qualification test shall be in accordance with the Essential Variables outlined in QW-350 or QW-360 of ASME Section IX for welders and welding operators.

The following procedure outlines the manner in which the performance qualification test will be conducted by a Recognized Test Administrator for the Class “R” Pressure Welder Certificate of Qualification examination.

Test Coupon

The test coupon materials shall be determined by the Licensed Contractors Quality Control Manager and this information provided to the Recognized Test Administrator-Examiner.

Test positions

The applicable test positions shall be determined by the Licensed Contractors Quality Control Manager and this information provided to the Recognized Test Administrator-Examiner.

Electrodes

The electrodes used for the test shall be in accordance with the Licensed Contractors Welding Procedure Specification that is registered with Technical Safety BC.



Examination Time

The examination time shall be determined by the Licensed Contractors Quality Control Manager and this information provided to the Recognized Test Administrator-Examiner.

The performance test may be terminated at any stage of review, if it becomes apparent that the candidate does not have the required skill to produce satisfactory results or is taking an excessive length of time to complete any phase of the test.

Preparation and Tacking

The coupon preparation and tack welding requirements shall be determined by the Licensed Contractors Quality Control Manager and this information provided to the Recognized Test Administrator-Examiner.

Welding

Specific requirements for welding of the test coupon will be determined by the Licensed Contractors Quality Control Manager and this information provided to the Recognized Test Administrator-Examiner.

Testing of Coupons

The specific requirements for testing will be determined by the Licensed Contractors Quality Control Manager and this information provided to the Recognized Test Administrator-Examiner.

It is acceptable to use either bend testing or volumetric examination. In either case, the results of bend tests, or procedures and personnel qualifications for Non Destructive Examinations shall be in accordance with ASME Section IX and the Recognized Test Administrators quality system manual.

Standards for the Evaluation of Test Specimens

All welds shall be free of grapes, craters, porosity, undercut, and lack of fusion.

The finished weld shall be uniform, free from undercut or arc strikes. Excessive weld reinforcement is not permitted and the weld cap must not exceed 1/8".

Guided bend tests shall have no open discontinuity in the weld or heat affected zone exceeding 1/8" measured in any direction on the convex surface of the specimen. Open defects occurring on the corners of the specimen during bending shall not be considered unless there is evidence that they result from slag inclusions, lack of fusion, or other internal defects.

Candidates who successfully complete the examination may apply for a Class "R" Pressure Welder Certificate of Qualification.



Candidates Failing the Examination

A candidate failing to pass the examination for a Class “R” Pressure Welder Certificate of Qualification on their initial attempt may not take the examination again until 30 days after the previous examination.

If a candidate fails to pass the examination on their second attempt, or any subsequent attempt the candidate may not take the examination again until 60 days after the previous examination.

Candidates Passing the Examination

The Examiner shall complete and certify (by signature) the applicable QW-484 A or B Performance Qualification Record form which details the Essential Variables in accordance with QW-350 or QW-360 of ASME Section IX for the welding procedure specification identification number, welding process, material, filler metal, weld metal thickness, diameters and positions/progressions the welder has qualified for.

The Examiner shall include their name, signature, certification body (CWB / ABSA) registration number and the name and address of the Recognized Test Administrator organization.

The Licensed Contractor employing the Class “R” Pressure Welder Certificate of Qualification shall retain a copy of the QW-484 form.

There is no requirement for the applicant to be in possession of a Welders Log Book issued by Industry Training Authority.

Candidates Responsibilities

The Candidate shall be responsible to submit the completed QW-484 form and the application form (FRM-1693) and required application fee to Technical Safety BC (via the online service) who will process and issue a Class “R” Pressure Welder Certificate of Qualification.

A Class “R” Pressure Welder Certificate of Qualification is valid for six months from the date of issue and is only valid for the Licensed Contractor listed on the QW-484 form.

NOTE: A current Class “R” Pressure Welder Certificate of Qualification and copy of the certified QW-484 form must be available at the site where pressure welding is being performed.