

American Welding Society®

Welding Procedure Qualifier (WPQ2)

Endorsement Description

Introduction

The AWS WPQ2 Description provides candidates guidance in the endorsement examination process. AWS strongly advices those who apply for the endorsement examination to read the endorsement description, paying particular attention to the test specifications and content area to gain better understanding. The examination description is subject to change.

Scope of Endorsement

AWS QC1:2016-AMD1- *Specification for AWS Certification of Welding Inspectors* provides for endorsements that may be added to the CWI and SCWI certifications. Endorsements are indication of an additional knowledge, skill or ability documented in writing and added to an individual's certification credential(s).

This endorsement meets a portion of the requirements for SWI Alternative Qualification in AWS B5.1 and Alternative Certification for the SCWI in QC1.

The WPQ2 Endorsement is a means of providing an additional credential to CWI's involved with the qualification of Welding Procedure Specifications.

Given the technical specifications and/or a drawing, the holder of the endorsement should be able to utilize language from AWS D1.1/D1.1M *Structural Welding Code – Steel* and AWS B2.1/B2.1M, *Specification for Welding Procedure and Performance Qualification* and be able to:

(1) Implement the organization's responsibilities.

(2) Work with an engineering specification or drawing, determine which base material – filler metal combination would be applicable for procedure qualification testing.

(3) Evaluate welding process(es) required for the application and determine the essential variables impacting the qualification process.

(4) Determine if a Welding Procedure Specification (WPS) is required to be qualified by testing, is suitable for prequalification, or if there are alternative WPS's that could be utilized.

(5) Determine the equipment needed for preparing and taking required measurements to be recorded during welding of the test plates.

(6) Perform oversight of the welding of the weld test.

(7) Determine the final NDE requirements of the weld test.

(8) Determine the destructive mechanical testing required per the governing standard(s).

(9) Correctly prepare the test specimens from the test coupons.

(10) Perform an evaluation of the test results.

(11) Document the actual variables used during welding of the weld test and the test results on a Procedure Qualification Record (PQR).

(12) Assist with the determination of weld test failures.

(13) Finalize the WPS.

Endorsement Candidate Eligibility Criteria

Any CWI or SCWI who wishes to obtain a credential that documents their knowledge, skills, and abilities to conduct welding procedure qualifications.

Initial Certification or 9-year Recertification Eligibility

For existing CWIs, successful completion of this endorsement satisfies the examination requirements for a 9-year recertification, provided that the endorsement is taken during the immediate 9-year period.

IMPORTANT! For new candidates to the CWI program, this examination is not an option for initial certification. This is not a CWI Part C Codebook exam and doesn't meet the requirements of Clause 6.2.1 of the AWS B5.1:2013 AMD1- *Specification for the Qualification of Welding Inspectors* nor follow the guidelines of Clause 7.1.

Training Requirements

This endorsement has no mandatory training requirements. Candidates are encouraged to attend an AWS seminar or to perform self-study to become familiar with welding procedure qualification.

Examination Requirements

Candidates who hold an AWS CWI or SCWI wishing to take this examination to add as an endorsement to their AWS credentials shall be current in their AWS certification status.

Successful candidates must correctly answer 66% of the questions to receive this endorsement.

Test Specifications

Test Specifications are a breakdown of exam content areas along with proportion of the exam devoted to each content area.

Domain	Subdomain	Percent of Questions on Exam
Domain 01 Planning	0101 Assessment of Project Requirements	30%
Domain 02 WPS Qualification and Testing Requirements	0201 General	40%
	0202 Process Variables	
	0203 Evaluation of Mechanical Testing	
	0204 Evaluation of NDT	
	0205 Prepare PQR and other documents	
Domain 03 Finalization of WPS	0301 Establishing Ranges for Prequalified WPS	30%
	0302 Establishing Ranges for WPS Qualified by Testing	
	Total	100%

Examination Details

The open-book examination consists of 50 scorable questions and 5 unscorable questions. The unscorable questions are pretest questions.

The examination will consist of traditional multiple-choice items.

IMPORTANT! A Chinese language-assisted version of the exam is available. For a list of available international Agents and test locations, please click HERE.

The language assisted version of the exam **also** will consist of 50 scorable traditional multiple-choice questions and 5 unscorable traditional multiple-choice questions.

Pretesting

The unscored questions are referred to as “pretest” questions. Including a small number of unscored test questions is common practice within the high stakes testing industry. It allows AWS to evaluate new items for both content validity and statistical performance. Items that perform well may be used in future examinations. This further helps future examination versions to have equivalent levels of difficulty and overall quality.

These questions are not scored and will not impact whether a candidate passes. These items are randomly placed within the examination and will not be identifiable as pretest items during testing.

Exam Delivery

The examination is a computer-based test (CBT) delivered at a Prometric test center.

CBT Exam Timing Information

The overall seat time allotted is 210 minutes (3.5 hours) from check-in to check-out at the test center. The time that can be used to answer questions is 180 minutes (3 hours).

Section of Testing	Time in Minutes
Candidate Confirmation Page	2
Non-Disclosure Agreement (NDA)	2
Introduction & Tutorials	10
Exam Question Answering	180
Survey	15
Finish Page	1
Total Duration	210

Examination Reference

Most exam questions are directly answerable from the two reference documents provided. To answer these questions, candidates can either answer from memory and experience or use the electronic copy of the document provided on the testing computer.

- AWS D1.1:2020 *Structural Welding Code-Steel*
- AWS B2.1/B2.1M:2021 *Specification for Welding Procedure and Performance Qualification*

IMPORTANT! Printed copies of exam references are permitted in the test location to take the exam. In addition, the references are available in PDF at testing, and the word search function is **not** enabled. The Codebook must be the original or permanently bound printed copy (as by stitching or glue) or securely fastened in its cover by fasteners that penetrate all pages. No loose sheets of paper are permitted. Please note in the D1.1 reference, there are some tables and figures presented in the landscape mode that are rotated to the portrait mode at Prometric testing.

Candidates not familiar with navigating conventional PDF documents should review the computer-based testing frequently asked questions (CBT FAQs) found HERE. Some features of conventional PDF navigation may be disabled by Prometric for psychometric reasons.

Some exam questions may be drawn from other standards that address welding procedure qualification and that are included in the list of Informative references for self-education.

For these questions, sufficient information to answer the question will be provided in the stem of the question; consulting a reference standard will not be necessary.

AWS EXAMINATIONS CODEBOOK POLICY

American Welding Society®

For certain AWS examinations, candidates are permitted to bring a **printed copy of the applicable codebook** for use during an open-book examination.

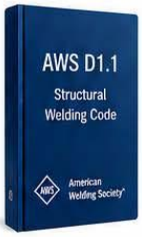
When a printed codebook is permitted, it must be an original printed publication or a permanently bound printed copy. The codebook must remain intact and secure throughout the examination.

Loose pages, folders, or individual printed sheets are not permitted.

ACCEPTABLE – PERMANENTLY BOUND COPIES

A printed copy is considered acceptable only if it is bound in one of the following ways:

ORIGINAL PUBLISHER-BOUND EDITION



Bound by the publisher.

STITCHED (SEWN)



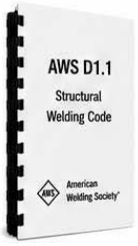
Pages are sewn together.

GLUED (PERFECT BIND)



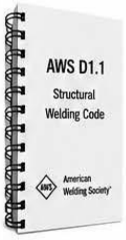
Pages are permanently glued to the spine.

COMB BOUND



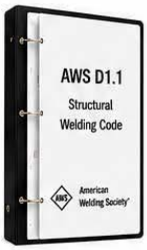
Pages are secured with a comb binding.

SPIRAL BOUND



Pages are secured with a spiral binding.

THREE-RING BINDER



Pages are secured in a standard three-ring binder. **(Must be bound)**

STAPLED OR RIVETED



Fasteners penetrate through all pages and the cover.

All pages must remain securely attached to the binding or cover.
The codebook must not contain loose, removable, or unsecured pages.

NOT ACCEPTABLE

LOOSE PAGES



Individual sheets of paper are not allowed.

Pages are loose and not attached.

FOLDERS



Pages in folders or without binding are not allowed.

Pages can fall out or be removed.

REMOVABLE OR UNSECURED PAGES



Any pages that are not permanently attached are not allowed.

Loose pages can be removed or replaced.

BINDER CLIPS (NOT PERMANENT)



Binder clips do not secure pages.

Pages can be removed or added.

DAMAGED OR UNSECURED BINDING



Binding must remain intact and secure throughout the examination. Damaged binding is not allowed.

Endorsement Fee Structure

For candidates in the United States and Canada, exam fees are due at time of registration and are paid directly to AWS. For the AWS exam price list, click HERE.

For international (outside of the US and Canada) candidates, exam fees are due at time of registration and paid to the International Agent representing AWS. Agents can provide pricing information regarding international exams.

Endorsement Credential

Endorsements earned will be updated in the AWS certification profile. Status can be checked via the QR code on the back of the CWI wallet card or via the **Quikcheck web link**.

Renewal Requirements as an Endorsement

This endorsement does not have any requirement for renewal. It will automatically be renewed at each CWI renewal or recertification. The endorsement will continue to be listed in an approved manner.

Professional Development Hours

PDHs are not currently approved for this endorsement and will be added soon. Check back often for the updated information.

Informative References for Self-education

The following is a list of documents that have requirements for qualifying WPSs and may be of value for candidates wishing to better understand how governing standards affect the qualification of WPSs.

1. AWS Publication, *The Practical Welding Engineer*
2. AWS Welding Handbook Volume 1, Ch 15
3. AWS B2.1/B2.1M *Specification for Welding Procedure and Performance Qualification*
4. AWS D1.1/D1.1M *Structural Welding Code Steel*
5. AWS D1.2/D1.2M *Structural Welding Code Aluminum*
6. AWS D1.4/D1.4M *Structural Welding Code – Steel Reinforcing Bars*
7. AASHTO/AWS D1.5M/D1.5 *Bridge Welding Code*
8. AWS D1.6/D1.6M *Structural Welding Code – Stainless Steel*
9. AWS D9.1/9.1M *Sheet Metal Welding Code*
10. AWS D17.1 *Specification for Fusion Welding of Aerospace Applications*
11. API 1104 *Welding of Pipelines and Related Facilities*
12. ASME Boiler and Pressure Vessel Code, Section IX: *Welding, Brazing, and Fusing Qualifications*
13. ISO 5173 *Destructive Tests on Welds in Metallic Materials – Bend Tests*
14. ISO 15607 Specification and Qualification testing of Welding Procedures for Metallic Materials - General Rules
15. ISO 15609 -1 *Specification and Qualification Testing of Welding Procedures for Metallic Materials - Welding Procedure*
16. Welding Procedure Development for Non-Welding Engineers
    (This book can be purchased online at https://weldinganswers.com/welding-procedure-development-for-non-welding-engineers.)