

ISO Standards
Endorsement Description

Introduction

The ISO Standards exam/endorsement provides CWIs and SCWIs an opportunity to demonstrate their knowledge, ability, and skills in the ISO Standards used as the test base. With this endorsement, CWIs and SCWIs may expand their opportunities in areas of the world where these standards are commonly specified.

Any candidate who is seeking CWI certification can take this examination as their initial Part C Codebook examination. Candidates can access the CWI Examination User Guide by clicking HERE. The Examination User Guide contains important information on the rules, policies, procedures, and exam content for candidates seeking to take the CWI exams.

Endorsement Scope

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

Endorsement Candidate Eligibility Criteria

Any candidate seeking initial CWI certification may opt for this examination to fulfill the requirements for successfully completing a Part C open codebook examination.

Current CWIs or SCWIs may pursue this endorsement to enhance their existing credential(s) and deepen their understanding of EN and ISO standards.

Training Requirements

This endorsement has no mandatory training requirements.

Examination Requirements

Candidates seeking the ISO Standards endorsement shall pass the AWS ISO Standards examination.

Successful candidates must correctly answer 72% of the questions to pass the examination. Re-examination shall be in accordance with AWS QC1:2016-AMD1- *Specification for AWS Certification of Welding Inspectors.*

Initial Certification or 9-year Recertification Eligibility

For candidates seeking initial certification at the CWI level, this examination satisfies the requirements of clause 6.2.1 of AWS B5.1:2013-AMD1- *Specification for the Qualification of Welding Inspectors*.

For existing CWIs and SCWIs, successful completion of this endorsement satisfies the examination requirements for recertification under Clauses 16.2.1 or 16.3.1, as applicable, of AWS QC1:2016-AMD1- *Specification for AWS Certification of Welding Inspectors,* provided that the endorsement is taken during the immediate 9-year period.

Test Specification

The Test Specifications are a breakdown of the exam content areas or domains that appeared in the examination along with the proportion of the exam devoted to each content area.

Subject weights for each of these areas are in conformance with the Code Applications examination requirements as expressed in Clause 7.1 of AWS B5.1:2013 AMD1- *Specification for the Qualification of Welding Inspectors.*

Domain	Subdomain	Percent of Questions on Test
Domain 01 Qualification [ISO 15614-1 And ISO 9606-1]	General Requirements	30%
	WPS Qualification	
	Performance Qualification of Welders	
Domain 02 Fabrication [EN 15085-3 and ISO 5817]	General Fabrication Requirements for Railway Applications	30%
	Design of Welded Connections in Railway Applications	
	Welding Requirements for Railway Applications	
Domain 03 Inspection [EN 15085-5, ISO 5817]	General Requirements	30%
	Visual Testing	
	NDT	
Domain 04 Reports and Records [ISO 15614-1, ISO 9606-1, ISO 5817]	General Reports and Records	5%
Domain 05 Materials and Design [EN 15085-3]	Parent Materials and Consumables in Railway Applications	5%
	Weld Joint Design in Railway Applications	
	Total	100%

Examination details

The open-book examination consists of 50 multiple-choice questions, each with a single correct answer.

A language assisted version of the exam is available for candidates whose first language is Chinese. For a list of available international Agents and test locations, please click HERE.

IMPORTANT! Candidates who test in Chinese will not have access to the Chinese-language standard.

Examination 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 150 minutes (2.5 hours) from check-in to check-out at the test center.

The time that can be used to answer questions is 120 minutes (2 hours).

Section of Testing	Time in Minutes
Candidate Confirmation Page	2
Non-Disclosure Agreement (NDA)	2
Introduction & Tutorials	10
Exam Question Answering	120
Survey	15
Finish Page	1
Total Duration	150

Informative References for Self-Study

The following is a list of informative reference standards to assist those wishing to learn and understand how ISO standards are used and to prepare for this endorsement exam. Candidates should be thoroughly familiar with ISO terminology, classifications, and symbols.

1. ISO 2553 *Welding and allied processes – Symbolic representation on drawings welded joints*

2. ISO 6947 *Welding and allied processes – Welding positions*

3. ISO 4063 *Welding and allied processes — Nomenclature of processes and reference numbers*

4. ISO 6520-1 *Classification of imperfections in fusion welding, Part 1: Fusion welding*

5. ISO 15609-1 *Specification and qualification of welding procedures for metallic metals - Welding procedure specification - Part 1: Arc Welding*

6. ISO 17637 *Non-destructive testing of welds - Visual testing of fusion-welded joints*

7. ISO 9712 *Non-destructive testing - Qualification and certification of personnel*

8. EN 15085: *Railway applications – Welding of railway vehicles and components, Parts 1 through 5*

9. ISO 9606-1 *Qualification testing of welders – Fusion welding – Part 1: Steels*

10. ISO 15614-1 *Specification and qualification of welding procedures for metallic metals - Welding procedure test - Part 1*

11. ISO 5817 *Welding – Fusion welded joints in steel, nickel, titanium and their alloys (beam welding excluded) – Quality levels for imperfections.*

12. ISO 5173 *Destructive tests on welds in metallic materials — Bend tests*

IMPORTANT! The PDF version of these references will NOT be available at Prometric testing centers. In addition, candidates CANNOT bring their own copies of the same standards to be used during the test.

Examination Reference

Most exam questions are directly answerable from the provided reference. 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.

1. EN 15085:2007 *Railway applications – Welding of railway vehicles and components*, *Parts 1 through 5* (provided in combined PDF)
2. ISO 9606-1:2012 *Qualification testing of welders – Fusion welding – Part 1: Steels*
3. ISO 15614-1:2017 *Specification and qualification of welding procedures for metallic metals Welding procedure test - Part 1*
4. ISO 5817:2014 *Welding – Fusion welded joints in steel, nickel, titanium and their alloys (beam welding excluded) – Quality levels for imperfections.*

IMPORTANT! Printed copy of reference is permitted in the test location. 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.

In addition, the reference is available in PDF for testing and the word search function is enabled. For candidates not familiar with navigating conventional PDF documents, we have introduced a new test drive page on the AWS website. You can access it HERE. This page provides a user-friendly interface and additional resources to help you prepare for computer-based testing. Additionally, you can find answers to frequently asked questions (CBT FAQs) to further support your preparation.

AWS EXAMINATIONS CODEBOOK POLICY

American Welding Society®

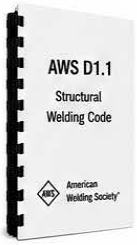
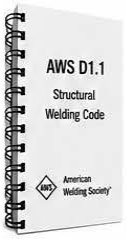
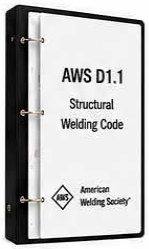
For certain AWS examinations, candidates are permitted to bring a **printed copy of the applicable codebook** for use during an open-book examination.

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	STITCHED (SEWN)	GLUED (PERFECT BIND)	COMB BOUND	SPIRAL BOUND	THREE-RING BINDER	STAPLED OR RIVETED
						
Bound by the publisher.	Pages are sewn together.	Pages are permanently glued to the spine.	Pages are secured with a comb binding.	Pages are secured with a spiral binding.	Pages are secured in a standard three-ring binder. **(Must be bound)**	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	FOLDERS	REMOVABLE OR UNSECURED PAGES	BINDER CLIPS (NOT PERMANENT)	DAMAGED OR UNSECURED BINDING
				
Individual sheets of paper are not allowed. Pages are loose and not attached.	Pages in folders or without binding are not allowed. Pages can fall out or be removed.	Any pages that are not permanently attached are not allowed. Loose pages can be removed or replaced.	Binder clips do not secure pages. Pages can be removed or added.	Binding must remain intact and secure throughout the examination. Damaged binding is not allowed.

IMPORTANT! Some features of conventional PDF navigation may be disabled by Prometric for psychometric reasons.

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

If the exam was taken as initial Part C exam and the candidate has become a CWI eventually, the candidate is required to renew the CWI exam every 3 years, every 6 years, and needs to recertify every 9th year.

Once all renewal requirements have been met via the renewal application and all administrative fees have been paid in full, the CWI Certification will be renewed. For further information concerning the CWI Certification renewal, click HERE to review the QC1 *Specification for AWS Certification of Welding Inspectors.*

The endorsement does not have any requirements 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.