

AWS Certification Program Update

Important changes to the CWI, CAWI, and SCWI certification programs are outlined

BY MARTY LUCIA

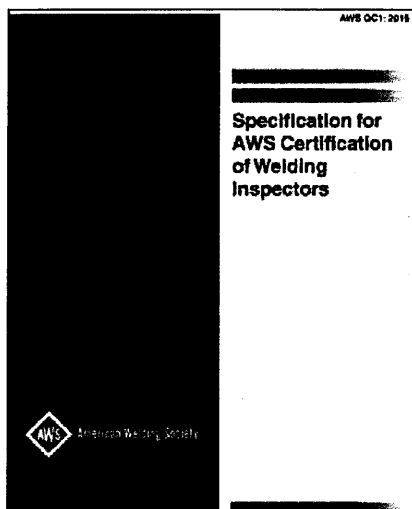


Fig. 1 — The latest version of AWS QC1 contains significant changes.

AWS QC1:2016, *Specification for AWS Certification of Welding Inspectors*, stands as the seminal certification standard for welding inspectors — Fig. 1. The Certified Welding Inspector (CWI) certification has been issued to more than 100,000 individuals worldwide since 1976. Since QC1 was last revised nine years ago, significant changes have been made to the 2016 edition that you need to know. As of January 2017, the American Welding Society (AWS) has initiated a phased implementation of QC1:2016.

The Certified Associate Welding Inspector (CAWI), the Certified Welding Inspector (CWI), and the Senior Certi-

fied Welding Inspector (SCWI) programs are directly impacted. It benefits you to know how these changes will apply to your initial application, three-year renewal, and nine-year recertification. Following are details on some of these changes.

B5.1 – QC1 Relationship

AWS B5.1, *Specification for the Qualification of Welding Inspectors*, establishes the requirements for qualification and defines the body of knowledge applicable to welding inspection personnel. AWS QC1 sets the certification requirements for the AWS Certified Welding Inspector program. Certification documents follow the standards established in the corresponding qualification documents; in this case, QC1:2016 reflects the changes in the B5.1:2013 document.

Endorsements for SCWI

New subclause 6.1.4 allows an alternative method for individuals to achieve the SCWI by earning endorsements. The CWI applicant can take an approved core of mandatory endorsement exams and a specified additional number of elective endorsement exams. Some of these endorsement exams exist today while others are under development. The AWS Qualification & Certification Committee will establish the details of this option at a later date.

It is important to note that the ten

current endorsement certifications only supplement inspection credentials (CWI and SCWI). Most of the mandatory and elective endorsements have yet to be created and approved. You cannot obtain a SCWI with the existing endorsements.

It was clarified in the definitions section that an endorsement is an indication of additional “knowledge,” “ability,” or “skill” beyond what the individual was originally tested for when earning his/her CWI or SCWI. The following endorsements are available: Structural Steel, Structural Aluminum, Bridge Welding, Railroad, Aerospace, API 1104 Pipeline, Structural Drawing Reading, Structural Bolting Inspection, ASME Pressure Piping B31.1 and B31.3, and ASME Pressure Vessel Section VIII, Div. 1.

CAWI Active Supervision

The Certified Associate Welding Inspector has always only been able to perform inspections under the direct supervision of a CWI/SCWI. However, in this edition, direct supervision has been clarified and defined as active supervision, meaning “direct on-site or readily available supervision” by a CWI or SCWI “in the form of necessary instructions to assure that the CAWI can perform specific evaluations as specified by the employer” (subclause 4.4). As in the past, the CWI or SCWI maintains the responsibility for determining final acceptance of the welds.

Education and Experience Requirements

Senior Certified Welding Inspector applicants are now able to draw from only the last eight years to meet the six-year minimum CWI certification status requirement (subclause 5.2). Previously, an individual who held a CWI for at least six years, then let it lapse for any duration of time (for example, 20 years), could apply and earn a SCWI without first reestablishing his or her CWI certification. The new rule limits the lapse of time to two years.

Exam Application Requirements

Subclause 5.3 calls for more specific information described in the relevant work experience including contact information for employers, description of the work performed, and employment dates. Applicants attest to the accuracy of the information provided, which is subject to review by the AWS Certification Department. It is important to note that false information is cause to reject the application and can disqualify the applicant from testing to be an AWS CAWI, CWI, or SCWI. This applies to the first three-year and second three-year renewals, as well as the nine-year recertifications.

Examination Requirements for SCWI and CWI

The minimum number of questions for Part B – Practical portion of the CWI exam allows for a decreased number of questions as per subclauses 6.2.2 and 7.1. This change allows more flexibility for the CWI exam developers. For example, more time intensive, but fewer, questions could be chosen to better differentiate candidates' abilities in the given testing period. There is no plan to reduce the Part B exam to fewer than the current 46 questions, but this option was deemed possible during the recent development of the new Part B exam so the option was included in this edition of QC1.

Retesting

A retest is the testing of a previously failed portion of the exam (Part A – Fundamentals, Part B – Practical, or Part C – Code Book). QC1:2016, sub-

clauses 6.2.5.1 and 6.2.5.2, differentiate the amount of additional hours of training required. If one or two parts of the exam need retesting, then 16 hours of qualifying training are required. If all three parts need to be re-taken, then 40 hours of training are needed before retesting. This better reflects the relationship between the necessary retraining required in proportion to the number of test portions and topics covered in the retest. The qualifying training must be documented as per subclause 6.2.5.2.

QC1 has been revised to clarify that applicants who fail to pass the Part C – Code Book portion of the CWI examination are required to use the same code used for the original examination (subclause 6.2.5.3).

A new subclause (6.2.6) describes a Certified Welding Educator (CWE) exemption: If the CWI applicant previously passed the CWE Parts A and B at or above the CWI level, then he/she need only take Part C and pass it at the CWI level.

Split Examination

During this revision of QC1, the Certification Committee considered changing the testing model of the CWI to require individuals to first pass Part A before being able to take Parts B and C (i.e., Part A would serve as a prerequisite). At the same time, AWS considered moving some of its testing to computer-based testing platforms, which would have helped facilitate this new testing model. Subclause 6.2.7 on 'Split Examinations' was added to allow AWS to implement this change when and if it chooses to do so. AWS is planning to move most of its exams to computer-based testing in 2017; however, moving to split exams as allowed by subclause 6.2.7 proved to be too challenging logistically and not practical at this time. So, although QC1 allows split exams per 6.2.7, the AWS Certification Department is not planning to implement them until the logistical and practical issues are resolved, which may take years.

AWS is planning to change its administration of CWI exams in mid-2017 by first requiring candidates to take the practical Part B exam at a typical AWS exam location, which usually follows a multiday preparatory course. Within a predetermined period of time, set by AWS, after taking the Part B exam, can-

didates must take Parts A and C at a computer-based training location. All three exam scores are then combined to determine if the candidate achieved the scores necessary to become a CWI. The rules for scoring and determination of certification are not changing from what they have been previously.

Although this new approach to administering exams appears to be split, it is only split in terms of timing, and not the split examination option described in subclause 6.2.7. This B then A and C method is being run under the existing rules found in subclauses 6.2.1 through 6.2.6. We understand this change to QC1 and our change in test administration might be confused with each other because in both instances there is some splitting of the exam; however, the subclause 6.2.7 testing model and the change in our administration of the exam are completely separate situations.

Achieving Certified Associate Welding Inspector Certification

New language cautions that CAWIs are limited on how they can practice inspection activities. For those who are unable to comply with these restrictions, it is recommended to surrender the CAWI certification and to continue to work uncertified.

Visual Acuity and Photo Requirements

QC1:2016 introduces the AWS Visual Acuity Form that a designated professional must complete for the SCWI, CWI, and CAWI. The visual acuity time period has changed from seven months to one year prior to the examination or certification expiration date. The (completed) visual acuity record is valid for up to one year from the exam date.

The time for the AWS Certification Department to receive the results of the Visual Acuity Form has been extended up to 60 days after the examination date in subclause 8.1.2. A new subclause (8.2) describes passport-style color photograph requirements and acceptance parameters.

Certification

New documentation language (sub-

clause 10.1) clarifies that certification becomes effective on the first day of the month following the date of examination. Note that this has been previously implemented. Also, the wallet card will include the photo of the person certified.

Verification requests of status and certification number of SCWIs, CWIs, and CAWIs will now include the certified person's photo, in addition to the certification number, date certified, expiration date, current status (current, revoked, etc.), and certification limitations (corrected vision, etc.) as per subclause 10.2. Remember, you can always verify current AWS Certification credentials using the AWS Certification Quickcheck at aws.org/certification/search.

Code of Ethics, Rules of Conduct, and Practice

Language has been added stating that the SCWI, CWI, and CAWI will not use the certification stamp or number connected to a lapsed or terminated SCWI, CWI, or CAWI status (subclause 11.2.3). This is an important ethical matter that directly affects one's livelihood. Following QC9, *Administrative Procedures for Alleged Violations of AWS Certification Programs*, a recent AWS Subcommittee on the Code of Ethics Hearing Panel ruled against a CWI for falsely representing his/her current status as a CWI; the penalty included having the CWI credential, which was active at that time, revoked for a significant period of time.

With the CAWI active supervision addition in subclause 4.4, the Code of Ethics in subclause 11.2.5 clarifies active supervision as one of the parameters in which an inspector can sign off work. Language has been modified in subclause 11.4.4 regarding conflict of interest conditions allowed for an inspector whose work is performed while being a public official. This is now allowed if this practice is expressly dictated by a job description or specification and all affected parties are notified.

Renewals

New language reaffirms that the CAWI certification is up to a three-year period with no renewals as per subclause 15.1, and that CAWI testing

for CWI status falls under CWI examination requirements (subclause 15.1.1).

Subclause 15.2.2 extends the period of time in which SCWI and CWI renewal applications are accepted by the AWS Certification Department — no earlier than 11 months prior to the certification expiration date. Previously, the time period was six months. This gives welding inspectors additional time to prepare and submit their documentation. If you should miss the renewal deadline, new subclause 15.3.2 allows renewals to be accepted after the 60-day grace period for up to one year of expiration; however, administrative late fees may be applied. SCWIs and CWIs are strongly advised to renew prior to the grace period since the SCWI and CWI certifications will be expired during this time. You cannot perform welding inspector work using an expired certification. See the Code of Ethics section of this article.

The SCWI and CWI certification renewal clarifies that continuous inactivity refers to work inactivity in subclause 15.4.

Nine-Year Recertification for SCWI and CWI

Consistent with the renewal application extension, subclause 16.1 extends the nine-year recertification application acceptance up to 11 months prior to the certification expiration date. A 60-day administrative extension is allowed; however, your certification will be expired during this time.

QC1:2016 references that the CWI may recertify by taking a Committee-approved endorsement and that the endorsement need not be current at the time of CWI recertification application (subclause 16.3.1). As of this writing, in addition to the ten existing endorsements cited in the Endorsement section of this article, there are additional endorsements pending development and approval by the Qualification & Certification Committee, as well as administrative implementation. For further information, go to aws.org/certification/page/cwi-scwi-endorsements.


Within training and teaching requirements, new language allows for broader course content relevant to subject or job functions in B5.1 (subclause 16.4.2). Earning Professional Develop-

ment Hours (PDHs) now reflect a wider parameter as stated in subclause 16.5.1. Wording in subclause 16.5.2 increases the maximum PDHs to 40 from the previous 20; also, proof of attendance was added as a form of verification. Subclause 16.5.3 clarifies that non-AWS conference PDHs are allowed if they address subjects in B5.1 and if proof of participation is provided. However, new subclause 16.5.9 allows PDHs for items not directly listed in B5.1 contingent upon AWS Certification Department approval.

New language has been added in subclause 16.7 to allow CWI nine-year recertification applicants to switch the recertification means (such as from Part B to an endorsement) if within the deadline. New subclause 16.7.1 specifies the instances in which all three exam Parts — A, B, and C — are required for CWI nine-year recertification. Individuals who take the exams but fail to pass are no longer certified once the certification expires and are then considered new applicants as described in subclause 16.7.2.

Conclusion

This article is not intended to serve as a complete depiction of all changes in QC1:2016, nor is it intended to replace your own review of the document. There are many nuances in the standard that cannot be fully reflected in this article. It is the responsibility of first-time applicants and renewing CWIs and SCWIs to carefully identify how these changes will affect themselves.

Should you have any questions or concerns, please feel free to contact the AWS Certification Department at (800) 443-9353, ext. 273. AWS QC1:2016 is available for free download at pubs.aws.org/t/freedownloads. 

MARTY LUCIA (mlucia@aws.org), PhD, is standards program manager, Certification Department, American Welding Society, Miami, Fla.