AWS QC19-2002

Standard for the AWS Certification of Arc Welding Personnel



American Welding Society

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Prepared by:

The AWS Certification Committee
Under the Direction of AWS Standards Council

Approved by:

The American Welding Society
Board of Directors

Abstract

This standard defines the certification program for the American Welding Society for use in the Certification of Automated Process Operators and Technicians. These certifications require documentation of experience, satisfactory completion of both written and practical examinations. The examination tests the CRAW's knowledge of welding processes, welding procedures, destructive and non-destructive tests, welding terms, definitions, symbols, reports, safety, quality assurance and responsibilities, robot programming and robot arc welding, and other related subjects. Successful completion of all requirements constitutes the basis for awarding a certification as a Robotic Arc Welding Technician or Robotic Arc Welding Operator.

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All standards (codes, specifications, recommended practices, methods, classifications, and guides) of the American Welding Society are voluntary consensus standards that have been developed in accordance with the rules of the American National Standards Institute. When AWS American National Standard standards are either incorporated in, or made part of, documents that are included in federal or state laws and regulations, or the regulations of other governmental bodies, their provisions carry the full legal authority of the statute. In such cases, any changes in those AWS standards must be approved by the governmental body having statutory jurisdiction before they can become a part of those laws and regulations. In all cases, these standards carry the full legal authority of the contract or other document that invokes the AWS standards. Where this contractual relationship exists, changes in or deviations from requirements of an AWS standard must be by agreement between the contracting parties.

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This standard is subject to revision at any time by the AWS Certification Committee. It must be reviewed every five years and if not revised, it must be either reapproved or withdrawn. Comments (recommendations, additions, or deletions) and any pertinent date that may be of use in improving this standard are required and should be addressed to AWS Headquarters. Such comments will receive careful consideration by the AWS Certification Committee and the author of the comments will be informed of the Committee's response to the comments. Guests are invited to attend all meetings of the AWS Certification Committee to express their comments verbally. Procedures for appeal of an adverse decision concerning all such comments are provided in the Rules of Operation of the Certification Committee. A copy of these Rules can be obtained from the American Welding Society, 550 N. W. LeJeune Road, Miami, Florida 33126.

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Foreword

(This Foreword is not a part of AWS QC19, *Standard for AWS Certification of Arc Welding Personnel program*, but is included for information purposes only.)

This standard was developed by the Certification Committee in response to an industry demand for certification of automated process operators and technicians.

The AWS Certification Committee was formed in 1975. The Committee is composed of representatives throughout industry and academia who have interests and experience in the certification of automated process operators and technicians. This is one of several documents produced by the committee covering welding personnel and facilities.

Comments and suggestions for the improvement of this standard are welcome. They should be sent to the Secretary, AWS Certification Committee, American Welding Society, 550 N.W. LeJeune Road, Miami, Florida 33126.

Official interpretations of any of the technical requirements of this standard may obtained by sending a request, in writing, to the Certification Department, American Welding Society. A formal reply will be issued after it has been reviewed by the appropriate personnel following established procedures.

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AWS QC19:2002, Standard for AWS Certification of Arc Welding Robotic Personnel

1. Scope

1.1 This standard establishes the requirements for AWS certification of automated process operators and technicians. It describes how personnel are certified, and the principles of conduct and practice by which certification may be maintained. Any oral or written claim of certification under the guidelines established herein shall be made only by those individual Certified Robotic Arc Welding (CRAW – O/T) Operator or Technician who are, at the time of the claim, current and in compliance with all sections of this standard.

1.2 In the certification process, AWS conducts an examination to determine a person's general knowledge of robotic arc welding operation and related technical areas. No determination is made of an individual's capabilities in applying that knowledge neither within a specific work environment nor under actual working conditions.

1.3 In the certification process, the employer is responsible for determining that a person has other qualifications as stated herein.

1.4 It shall be the responsibility of the employers to determine that the CRAW Technician or Operator is capable of performing the duties involved in their particular welding environment, and to provide or make available such training or indoctrination as may be required.

1.5 This standard is intended to supplement the requirements of an employer, code, or other documents and shall not be construed as a preemption of the employer's responsibility for the work or for the performance of the work.

1.6 Safety Precautions. This document is not intended to address safety and health matters regarding certified CAWRP Technician or Operator . Safety and health requirements are provided in ANSI Z49.1, *Safety in Welding and Cutting, and Allied Processes* (available from the American Welding Society) and RIA 15.06, *American National Standard of Industrial Robots and Robot Systems - Safety Systems* and other safety and health standards, and federal, state, and local government regulations. This document only covers the rules of personnel certification.

2. Reference Documents

AWS A3.0, *Standard Welding Terms and Definitions*
AWS B1.10, *Guide for Nondestructive Inspection of Welds*
AWS B1.11, *Guide for Visual Welding Inspection*
AWS B5.1, *Qualification Standard for AWS Welding Inspectors*
AWS QC1, *Standard for AWS Certification of Welding Inspectors*
AWS WI, *Welding Inspection*
AWS CM-00, *Certification Manual for Welding Inspectors*
AWS B2.1, *Specification for Welding Procedure and Performance Qualification*