

## **COMPARISON OF QC47 TO QC4 AND QC7**

Items of Checklist	Additions and Modifications in QC47
Scope	
The essential elements of the QC4 and QC7 Scopes are addressed in QC47.	The Scope requirements include:
Terms and Definitions	
The necessary terms are included and defined.	<ul> <li>The pertinent terms used in QC47 are included, and the reference to AWS A3.0 is given: <ul> <li>there are a few modifications in terms, such as governing standard, test candidate, and Facility Manager.</li> <li>the major changes are the MTR, routing sheet, and the Welder Qualification Endorsement for the Qualifier.</li> </ul> </li> </ul>
Welder Requirements	
The certification requirements for the welder presented.	The requirements of the welder for the AWS NRCW are more detailed in QC47, especially the required signature on a completed AWS-provided routing sheet.
	Significant changes to the credentialling process, including PQTR, WPS, photo, digital signature, and digital continuity log.



Employers of AWS Certified Welders	
The roles and responsibilities for employers are defined and explained.	<ul> <li>The responsibilities of the employers of AWS Certified Welders include: <ul> <li>the choosing of an appropriate SWPS or alternative WPS.</li> <li>the QMS of the ATFs must address all requirements of QC47.</li> <li>an awareness of the provisions and limitations of QC47 and the ranges of qualification with the governing standard.</li> </ul> </li> </ul>
ATF Requirements The modifications to the ATF	The requirements and changes are presented in
requirements are understandable and prominent.	<ul> <li>QC47: <ul> <li>ATFs will be capable of performing visual, destructive, and/or radiographic tests</li> <li>off-site testing will be controlled by all provisions of QC47.</li> <li>the newly documented and specific procedure for receiving test coupons shall be in the QMS.</li> <li>all requirements of QC47 shall be addressed in the QMS. A quality manual is required referencing any separate procedures or work instructions.</li> <li>ATFs shall have access to the standards and WPSs that are used in the welding tests.</li> <li>quality manual must have a Quality Policy Statement.</li> <li>documented test procedure required with specific input.</li> <li>a more descriptive method of addressing complaints.</li> <li>a change in reviewing and maintaining subcontracted services.</li> <li>Qualifier duties are specified, especially the limitation of training and conducting the welding tests.</li> <li>new requirements in mechanical testing equipment and subcontracted NDE.</li> <li>MTRs are required for base materials.</li> </ul> </li> </ul>



- shielding gases are now classified according to AWS A5.32.
- requirements of consumable storage have been added.
- governing standard shall define the welder performance tests with new defaults.
- The record for performance qualification test is now a PQTR.
- power tools cannot be used to clean completed welds or improve weld profile; only be used to feather tacks.
- RT of test coupons requires the film and coupon be retained for 30 days.
- retests shall be in accordance with governing standard.
- procedure needed for handling inquiries about test results.

## **Accreditation of Test Facilities**

Changes to the ATF accreditation process are stated.

Modifications to the ATF accreditation policies are few:

- application shall contain a scope of testing declaration and certification credentials of Qualifiers.
- a major change is that the ATF audits will be done per ISO 19011.
- a welder qualification test shall be conducted during the initial onsite audit or when a new ATF Qualifier has been added.

## **Maintaining Accreditation**

The process for maintaining ATF accreditation is presented.

Alteration to the ATF accreditation maintenance policies is the inclusion of an Annual Report and a revocation of accreditation if report is not submitted within a 90-day period.

All submissions for AWS welder certification are subject to technical and administrative reviews. Errors and/or omissions may lead to the rejection of the application. Failure to address the causes of the errors and/or omissions may lead to the suspension of the ATF.



Revocation of Accreditation	
The procedure for revoking an ATF	The major addition is the submission of complaints
accreditation is stated.	against the ATF to AWS.
<b>Custom Programs</b>	
The Custom Programs	The entire section is a new addition describing an
requirements are defined.	agreement between AWS and the Program Owners. It describes the responsibilities of AWS and the Program Owner
AWS Forms	
A list of AWS mandatory forms is	The two new forms are an ATF Audit Checklist(s) and
provided.	a Routing Sheet.