



CERTIFICATION SCHEME FOR PERSONNEL

## **DOCUMENT No. CSWIP-MW-29-17**

### **Requirements for the Certification of Master Welders**

1<sup>st</sup> Edition, June 2018

Issued under the authority of the Governing Board for Certification  
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CSWIP is administered by TWI Certification Ltd

## **FOREWORD**

The Certification Scheme for Personnel (CSWIP) is a comprehensive scheme which provides for the examination and certification of individuals seeking to demonstrate their knowledge and/or competence in their field of operation. The scope of CSWIP includes all levels of Welding Inspectors, Welding Supervisors, Welding Instructors, Welding Examiners, Welding Quality Control Co-ordinators, Heat Treatment Operatives, Cathodic Protection Personnel, Plant Inspectors, NDT Personnel, Plastics Welders, Plastic Welding Inspectors and Underwater Inspection personnel.

CSWIP is managed by the Certification Management Board, which acts as the Governing Board for Certification, in keeping with the requirements of the industries served by the scheme. The Certification Management Board, in turn, appoints specialist Management Committees to oversee specific parts of the scheme. All CSWIP Boards and Committees comprise member representatives of relevant industrial and other interests. TWI Certification Ltd is accredited by UKAS to ISO/EIC 17024 for certification of personnel.

TWI Certification Ltd understands the importance of impartiality in carrying out its certification activities, managing conflict of interest and ensuring the objectivity of all its certification activities, in accordance with ISO/IEC 17024.

## **ACCESS TO CERTIFICATION**

Access to certification schemes is not improperly restricted. The sole criteria for certification are given in the document (and any subsequent amendments) and no other criteria will be applied. Certification is not conditional on the candidate applying for other services or membership from TWI Certification Ltd, its parent, or any other groups or associations.

### **1. Objectives**

The safety and cost-effectiveness of welding is critically dependent on the skill of individual welders. In order to ensure experienced welders are working at the required level of competence, this scheme certifies Master Welders with competence in multipositional pipe welding, applying three welding processes to a given material or one process to at least three materials, and having demonstrated the required knowledge and understanding of welding. CSWIP Master Welder certificate provides the benefit of internationally recognised status to experienced welders and to the organisation employing him/her.

### **2. Scope**

The scheme identifies personnel who have relevant experience in welding, a high level of welding skill and who have attained a minimum level of knowledge. This document provides the procedures for certification of Master Welders.

### **3. Entry Requirements**

- Valid welder qualifications (e.g. ISO 9606) for H-L045 for a combination of processes and materials.

And

- Three years verified experience as a Welder.

## **4. ASSESSMENT PROCEDURE**

### **4.1. GENERAL THEORY EXAMINATIONS**

Candidates will be required to take:

- 40 multiple choice question paper on basic welding equipment and processes, time allowed 60 minutes
- 36 multiple choice question paper on making welded joints, time allowed 55 minutes
- 14 multiple choice question paper on pipe welding and materials excluding steel, time allowed 20 minutes

Pass mark 70%

### **4.2. SPECIFIC PROCESS EXAMINATIONS**

Candidates will be required to take relevant specific examinations:

- MMA/TIG 10 multiple choice questions, time allowed 15 minutes
- MIG/MAG/FCAW 14 multiple choice questions, time allowed 20 minutes per process

Pass mark 70%

### **4.3. MATERIAL SPECIFIC EXAMINATIONS**

Candidates will be required to take specific material examinations, if applicable.

- 16 multiple choice questions on high alloy steels, time allowed 25 minutes
- 16 multiple choice questions on austenitic stainless steel, time allowed 25 minutes
- 16 multiple choice questions on nickel, time allowed 25 minutes
- 16 multiple choice questions on aluminium, time allowed 25 minutes

Pass mark 70%

### **4.4. PRACTICAL EXAMINATION**

The candidate must take three relevant (e.g. ISO 9606) qualification test(s) (if not already held).

## **5. Application for Examination**

Candidates will be required to submit an application form and copies of valid welder qualifications. All the information requested must be on these forms. No applications can be considered confirmed until receipt of correctly completed documents. Application forms ask for specific details of experience and training and must be signed to the effect that these details are correct.

Candidates proved to have cheated, or found to have attempted to remove or found to have removed examination material in a CSWIP examination will not be accepted as a candidate for any CSWIP examination for a minimum period of five years from the date of the examination where cheating, attempt to remove or removal of examination material, was established to have taken place.

## **6. Certification**

### **6.1. RESULTS NOTICES**

All candidates will be sent a results notice. This notice will also be sent to the organisation paying the examination fee, if not paid by the candidate.

### **6.2. SUCCESSFUL CANDIDATES**

Two copies of a certificate of proficiency will be issued to the organisation or person that pays the examination fees. Duplicate certificates to replace those lost or destroyed will be issued only after extensive enquiries.

### **6.3. UNSUCCESSFUL CANDIDATES**

Candidates who fail to obtain a certificate may attempt two retests on theory examinations in which success was not achieved. The retest must be completed within one year of the initial test, otherwise candidates will have to repeat the complete examination. Candidates who fail the second retest must take the relevant NWTS theoretical module(s) that they have failed..

Candidates who fail the practical examination are allowed one retest. Candidates who fail the retest must take the relevant NWTS practical module they have failed.

### **6.4. PERIOD OF VALIDITY**

The certificate is valid for three years from the date of completion of the initial test and may be renewed for a further three years on application, provided evidence is produced in accordance with Clause 8.5.1. Certificates are only valid provided:

- a) they are within date.
- b) they are on standard cream CSWIP paper bearing the CSWIP logo in black on gold signed by an officer of CSWIP and embossed with the CSWIP stamp.
- c) they have been signed by the individual to whom the certificate is awarded.
- d) they are accompanied by a valid official CSWIP identity card.

Photocopies are unauthorised by CSWIP and should only be used for internal administrative purposes.

### **6.5. RENEWAL**

#### **6.5.1. Three year renewal**

In order for the certificate to be renewed after three years, the holder has to demonstrate that he/she has maintained his/her competence by:

- i) providing evidence of continuous work activity in welding
- ii) providing evidence that the holder has kept up to date in welding technology
- iii) providing evidence of three valid welder qualifications (e.g. ISO 9606)

Renewal must take place not later than 21 days after the date of expiry of the certificate. It is the certificate holder's responsibility to ensure that renewal takes place at the appropriate time. Only under extreme circumstances will certificates be renewed up to a maximum of six calendar months from the date of expiry shown on the certificate and late renewal will be subject to a special fee.

### **6.5.2. Six year recertification**

Certificates are renewed beyond six years from the initial examination (or from a previous six year renewal) by the holder successfully completing a recertification examination prior to the expiry of the certificate in addition to the renewal procedure given in Clause 8.5.1.

The six year examination will consist of the following:

- 40 Multiple choice General question paper
- The candidate must take three relevant ISO 9606 qualification test(s) (if not valid).

One retest, within six months of the six year recertification ~~examination~~, will be allowed. Candidates who fail the retest will be required to undertake formal training before attempting the initial examination.

### **6.6. COMPLAINTS AND APPEALS**

An aggrieved party in a dispute which considers itself to have reasonable grounds for questioning the competency of a CSWIP qualified person may petition the Governing Board for non-renewal of the certificate. Such a petition must be accompanied by all relevant facts, and if in the opinion of the Board an adequate case has been presented, a full investigation of the circumstances under dispute will be initiated. If the petition is substantiated to the satisfaction of the Board, the certificate will not be renewed without further test.

Appeals against failure to certify or against non-renewal of the certificate may be made by the candidate or the employer upon application in writing to the Governing Board.

## **7. Records**

TWI Certification Ltd maintains records of successful and unsuccessful candidates. These records are accessible to the Governing Board or its nominees at all reasonable times.

### **ADDRESSES**

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