

## Conditions for Use of Standard Welding Procedure Specifications

### **SCOPE**

SWPS are not permitted for construction where impact testing of the WPS is required by the construction code. SWPS may be required to be approved by the client / project prior to use.

### **USE OF SWPS** (see [QW-510](#))

The Organisation (fabricator, manufacturer, contractor, etc.) shall be responsible for application of this SWPS and shall comply with the following prior to use in production:

- a) This document is an 'additional instruction', in accordance with ASME IX [QW-540 \(e\)](#), and shall be attached to the referenced AWS SWPS. AWS SWPS can be purchased online and are not supplied by weldspeconline.com.
- b) Enter name of the Organisation on the SWPS downloaded from weldspeconline.com.
- c) An employee of the Organisation shall sign and date the SWPS.
- d) The applicable code(s) and/or specification(s) shall be referenced on the SWPS.
- e) The Organisation shall weld and test one demonstration coupon using the SWPS and shall record the details stated within ASME IX [QW-510 \(d\)](#) Notes (1) through (15).
- f) The sample coupon shall be visually examined in accordance with [QW-302.4](#) and mechanically tested in accordance with [QW-302.1](#) OR radiographically examined in accordance with [QW-302.2](#).
- g) Record all test data as per [QW-485](#) - see attached Demonstration Form.

### **LIMITATIONS OF SWPS** (see [QW-520](#))

Once a SWPS has been demonstrated, additional SWPSs that are similar to the SWPS demonstrated may be used without further demonstration. Further demonstration is required if there is a change in any of the following variables:

- a) A change in the welding process.
- b) A change in the P-Number.
- c) A change from the as-welded to the heat treated condition. Once heat treatment has been demonstrated for any SWPS, this limitation no longer applies.
- d) A change from Gas Shielded FCAW to Self Shielded FCAW or vice versa.
- e) A change from spray, globular, or pulsed transfer mode to short circuit transfer mode or vice versa.
- f) A change in the F-Number of welding electrode.
- g) Addition of preheat above ambient temperature. NOTE: Wall thickness > 32.0mm may require minimum preheat as specified in applicable ASME design codes where no PWHT is applied.
- h) A change from an SWPS that is identified as for sheet metal to one that is not and vice versa.

### **OTHER SWPS RESTRICTIONS** (see [QW-540](#))

- a) The user may not deviate from the welding conditions specified on the SWPS.
- b) SWPSs may not be supplemented with PQRs or revised in any manner except for reference to the applicable Code Section or other fabrication as provided in [QW-511](#).
- c) When a multiprocess SWPS is selected, the processes shown on the SWPS shall be used in the order and manner specified on the SWPS.
- d) SWPSs shall not be used in the same production joint together with WPSs qualified by the Organisation.
- e) SWPSs may not be used until the demonstration of [QW-510](#) has been satisfactorily welded, tested, and certified.
- f) The identification number of the Supporting Demonstration shall be noted on each SWPS that it supports prior to using the SWPS.
- g) The certified Supporting Demonstration Record shall be available for review by an Authorised Inspector.
- h) SWPS may only be applied in production using welders suitably qualified in accordance with [QW-300](#).

### **CONSUMABLES**

- a) Consumables may require special conditioning, storage, and handling prior to and during production to ensure AWS hydrogen status classification is maintained.
- b) See ASME II Part C Annex A Table A3 for guides on consumable treatments.
- c) Use manufacturer recommendations for consumable conditioning if those recommendations differ from that detailed in ASME II Part C Annex A Table A3.

### **GUIDELINES**

- a) The user shall consider the application of preheat in complying with design, code / standard guidelines, or client specification requirements. Factors affecting the preheat temperature may include carbon equivalent value, combined joint thickness, and restraint conditions.
- b) The user needs a significant knowledge of welding and accepts full responsibility for the performance of the weld and for providing the engineering capability, qualified personnel, and proper equipment to implement SWPS.
- c) The user shall consider applicability or relevance of health and safety regulatory limitations / precautions prior to use.