

## Chapter 11.2 Volume II

### WELDING PROCEDURE SPECIFICATION REVIEW AND APPROVAL PROCESS

#### 11.2.1 PURPOSE

This procedure provides guidance to the fabricators for the review and approval of the fabrication facilities' welding procedure specifications.

#### 11.2.2 AUTHORITY

Sections 20.23(3)(a) and 334.048(3), Florida Statutes (F.S.)

#### 11.2.3 REFERENCES

American Association of State Highway Transportation Officials/National Steel Bridge Alliance (AASHTO/NSBA) Steel Bridge Collaboration, Steel Bridge Fabrication QC/QA Guide Specification S4.1

American Welding Society (AWS) AASHTO/AWS D1.5/D1.5M, Bridge Welding Code

American Welding Society (AWS) D1.1/D1.1M, Structural Welding Code – Steel

American Welding Society (AWS) D1.2/D1.2M, Structural Welding Code- Aluminum

American Welding Society (AWS) D1.3/D1.3M, Structural Welding Code-Sheet Steel

American Welding Society (AWS) D1.4/D1.4M, Structural Welding Code-Reinforcing Steel

American Welding Society (AWS) D1.6/D1.6M, Structural Welding Code-Stainless Steel

#### 11.2.4 SCOPE

This procedure affects the fabrication facilities, the Florida Department of Transportation's (FDOT or Department) State Materials Office, and the consultants who are involved in the verification and other quality assurance inspection and testing of the steel and miscellaneous metal products.

## 11.2.5 GENERAL INFORMATION

Each fabrication facility is required to perform welding in accordance with Department approved Welding Procedure Specifications (WPS). All WPSs shall be submitted on FDOT forms where those forms are available. Any forms not available as FDOT forms may be submitted on the fabricator's own form. Any welding performed without Department approved WPSs may be subject to rejection.

## 11.2.6 WPS REVIEW AND APPROVAL PROCESS

### 11.2.6.1 Review of Proposed WPSs

The fabrication facility's AWS Certified Welding Engineer or AWS Certified Welding Inspector will review, sign, and stamp the proposed WPSs. Upon completion of each WPS, submit one stamped electronic copy in PDF format or hard copy to the Department's responsible verification inspection consultant. WPSs that require qualification testing shall be submitted with supporting documentation in accordance with the appropriate code. Contact the State Materials Office to determine the name of the verification inspection consultant that is responsible for the review of the proposed Welding Procedure Specifications.

The responsible verification inspection consultant reviews the submitted WPSs and any associated **Procedure Qualification Records (PQR)**. The original, stamped welding procedures will be sent within two weeks of receipt of the documents to the State Materials Office. The responsible verification inspection consultant will place the review stamp on the front of each WPS indicating its disposition. This disposition will be either "approved" or "revise and resubmit".

If additional information is required for the review or if the WPS is rejected, the responsible verification inspection consultant will contact the fabrication facility in writing to request clarification, additional information, or resubmission of the rejected procedure. The two-week review time clock will be reset after the submittal of the additional information.

### 11.2.6.2 Maintaining Records of Approved Welding Procedure Specifications

The State Materials Office will store electronic copies of welding procedures stamped "approved" on a secured limited access FDOT site maintained by the State Materials Office.

## 11.2.7 UTILIZATION OF THE APPROVED WPSs

The approved WPSs must be used on any applicable Department projects.

Submittals of WPSs on a per project basis are not necessary, unless the project requires additional information that is not available in the current WPSs. WPSs may be given an expiration date based on their **PQRs** or in accordance with the appropriate AWS code. Approved WPSs may be used by the submitting fabrication facility until they expire.

A list of the approved WPSs that the fabricator proposes for use on the project must be provided with the submittal of shop drawings. The same list must also be provided during the prefabrication meetings. At the completion of the project the list of the Welding Procedure Specifications must be revised and resubmitted to include the actual WPSs that were used.

If additional welding procedures are required for a particular project, or as existing procedures expire, additional or new WPSs must be submitted to the responsible verification inspection consultant for review as stated in **Section 11.2.6.1**.

The fabricator shall provide a stamped copy of each approved WPS when requested by a Department representative. Copies of approved WPSs must be posted in the fabrication shop for reference by shop personnel performing welding.

## **11.2.8 PRODUCERS WITH ACCEPTED QUALITY CONTROL PLANS**

All fabricators working on FDOT projects involving welding shall have applicable WPSs approved by the Department prior to the commencement of welding, whether or not the materials and welds are subject to inspection by the Department..

## **11.2.9 Training**

No training is required for the implementation of this document.

## **11.2.10 FORMS**

The fabricator is responsible to make sure that they are using the most current version of the following FDOT forms:

Fillet Weld Soundness Test (FWS) D1.1-D1.5 (Form 675-070-01)

Welding Procedure Specification (WPS) D1.1 (Form 675-070-05)

Weld Procedure Qualification Record (PQR) D1.1 (Form 675-070-08)

Welding Procedure Specification (WPS) D1.2 (Form 675-070-06)

Weld Procedure Qualification Record (PQR) D1.2 (Form 675-07-004)

Welding Procedure Specification (WPS) D1.3 (Form 675-070-10)

Weld Procedure Qualification Record (PQR) D1.3 (675-070-09)

Welding Procedure Specification (WPS) D1.4 (675-070-12)

Weld Procedure Qualification Record (PQR) D1.4 (675-070-11)

Welding Procedure Specification (WPS) D1.5 (Form 675-070-02)

Weld Procedure Qualification Record (PQR) D1.5 (Form 675-07-003)

Welding Procedure Specification (WPS) D1.6 (675-070-14)

Weld Procedure Qualification Record (PQR) D1.6 (675-070-13)