

Structural Welding Code—Steel

1. General Requirements

1.1 Scope

This code contains the requirements for fabricating and erecting welded steel structures. When this code is stipulated in contract documents, conformance with all provisions of the code shall be required, except for those provisions that the Engineer (see 1.4.1) or contract documents specifically modifies or exempts.

The following is a summary of the code sections:

1. General Requirements. This section contains basic information on the scope and limitations of the code.

2. Design of Welded Connections. This section contains requirements for the design of welded connections composed of tubular, or nontubular, product form members.

3. Prequalification. This section contains the requirements for exempting a WPS (Welding Procedure Specification) from the qualification requirements of this code.

4. Qualification. This section contains the qualification requirements for WPSs and welding personnel (welders, welding operators and tack welders) necessary to perform code work.

5. Fabrication. This section contains the requirements for the preparation, assembly and workmanship of welded steel structures.

6. Inspection. This section contains criteria for the qualifications and responsibilities of inspectors, acceptance criteria for production welds, and standard procedures for performing visual inspection and NDT (nondestructive testing).

7. Stud Welding. This section contains the requirement for the welding of studs to structural steel.

8. Strengthening and Repair of Existing Structures. This section contains basic information pertinent

to the welded modification or repair of existing steel structures.

1.2 Limitations

The code is not intended to be used for the following:

(1) Steels with a minimum specified yield strength greater than 100 ksi [690 MPa]

(2) Steels less than 1/8 in. [3 mm] thick. When base metals thinner than 1/8 in. [3 mm] thick are to be welded, the requirements of AWS D1.3 should apply. When used in conjunction with AWS D1.3, conformance with the applicable provisions of this code shall be required.

(3) Pressure vessels or pressure piping

(4) Base metals other than carbon or low-alloy steels. AWS D1.6, *Structural Welding Code—Stainless Steel*, should be used for welding stainless steel structures. Whenever contract documents specify AWS D1.1 for welding stainless steel, the requirements of AWS D1.6 should apply.

1.3 Definitions

The welding terms used in this code shall be interpreted in conformance with the definitions given in the latest edition of AWS A3.0, *Standard Welding Terms and Definitions*, supplemented by Annex B of this code and the following definitions:

1.3.1 Engineer. “Engineer” shall be defined as a duly designated individual who acts for, and in behalf of, the Owner on all matters within the scope of the code.

1.3.2 Contractor. “Contractor” shall be defined as any company, or that individual representing a company, responsible for the fabrication, erection, manufacturing, or welding, in conformance with the provisions of this code.

1.3.3 Inspectors

1.3.3.1 Contractor’s Inspector. “Contractor’s Inspector” shall be defined as the duly designated person who acts for, and in behalf of, the Contractor on all