

## Coast Guard, Dept. of Homeland Security

## § 59.01-2

### § 58.60-11 Analyses, plans, diagrams and specifications: Submission.

(a) Each industrial system must be analyzed by a registered professional engineer to certify that the system has been designed in accordance with applicable standards.

(b) The certification must—

(1) Appear on all diagrams and analyses; and

(2) Be submitted under § 50.20-5 of this chapter.

(c) Standards or specifications for non-pressurized, mechanical or structural systems, and components such as derricks, drawworks, and rotary tables which comply with standards or specifications not referenced in this subchapter must be referenced on the plans or in the specifications of the unit.

### § 58.60-13 Inspection.

An industrial system is accepted by the Coast Guard if the inspector finds—

(a) The system meets this subpart;

(b) There are guards, shields, insulation or similar devices for protection of personnel; and

(c) The system is not manifestly unsafe.

## PART 59—REPAIRS TO BOILERS, PRESSURE VESSELS AND APPURTENANCES

### Subpart 59.01—General Requirements

Sec.

59.01-1 Scope.

59.01-2 Incorporation by reference.

59.01-5 Repairs, replacements, or alterations.

### Subpart 59.10—Welding Repairs to Boilers and Pressure Vessels in Service

59.10-1 Scope.

59.10-5 Cracks.

59.10-10 Corroded surfaces.

59.10-15 Rivets and staybolts.

59.10-20 Patches in shells and tube sheets.

59.10-25 Stayed areas.

59.10-30 Seal welding.

59.10-35 Wrapper plates and back heads.

### Subpart 59.15—Miscellaneous Boiler Repairs

59.15-1 Furnace repairs.

59.15-5 Stayed furnaces and combustion chambers.

59.15-10 Bagged or blistered shell plates.

### Subpart 59.20—Welding Repairs to Castings

59.20-1 Carbon-steel or alloy-steel castings.

AUTHORITY: 46 U.S.C. 3306, 3703; E.O. 12234, 45 FR 58801, 3 CFR, 1980 Comp., p. 227; Department of Homeland Security Delegation No. 0170.1.

SOURCE: CGFR 68-82, 33 FR 18887, Dec. 18, 1968, unless otherwise noted.

## Subpart 59.01—General Requirements

### § 59.01-1 Scope.

The regulations in this part apply to the repairs of all boilers, appurtenances and pressure vessels subject to inspection by the Coast Guard.

### § 59.01-2 Incorporation by reference.

(a) Certain material is incorporated by reference into this part with the approval of the Director of the Federal Register under 5 U.S.C. 552(a) and 1 CFR part 51. To enforce any edition other than that specified in this section, the Coast Guard must publish notice of change in the FEDERAL REGISTER and the material must be available to the public. All approved material is available for inspection at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030 or go to [http://www.archives.gov/federal\\_register/code\\_of\\_federal\\_regulations/ibr\\_locations.html](http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html). The material is also available for inspection at the U.S. Coast Guard, Office of Design and Engineering Standards (CG-ENG), 2100 2nd St., SW., Stop 7126, Washington, DC 20593-7126, and is available from the sources listed below.

(b) *American Society of Mechanical Engineers (ASME) International*, Three Park Avenue, New York, NY 10016-5990:

(1) 2001 ASME Boiler and Pressure Vessel Code, Section I, Rules for Construction of Power Boilers (July 1, 2001) (“Section I of the ASME Boiler and Pressure Vessel Code”), 59.10-5;

(2) ASME Boiler and Pressure Vessel Code, Section VII, Recommended Guidelines for the Care of Power Boilers (July 1, 2001) (“Section VII of the

## § 59.01-5

ASME Boiler and Pressure Vessel Code”), 59.01-5;

(3) ASME Boiler and Pressure Vessel Code, Section VIII, Division 1, Rules for Construction of Pressure Vessels (1998 with 1999 and 2000 addenda) (“Section VIII of the ASME Boiler and Pressure Vessel Code”), 59.10-5; 59.10-10; and

(4) ASME Boiler and Pressure Vessel Code, Section IX, Welding and Brazing Qualifications (1998) (“Section IX of the ASME Boiler and Pressure Vessel Code”), 59.10-5.

[USCG-2003-16630, 73 FR 65188, Oct. 31, 2008, as amended by USCG-2009-0702, 74 FR 49229, Sept. 25, 2009; USCG-2012-0832, 77 FR 59778, Oct. 1, 2012]

### § 59.01-5 Repairs, replacements, or alterations.

(a) No repairs, replacements, or alterations, except emergency repairs, shall be made to boilers, pressure vessels, their mountings or internal fittings, safety valves, piping systems, or pressure appliances without prior approval by the Officer in Charge, Marine Inspection.

(b) Emergency repairs, replacements, or alterations shall be reported as soon as practicable to the Officer in Charge, Marine Inspection, at or nearest the first port where the vessel may call after such repairs are made.

(c) Plan approval shall be obtained from the Officer in Charge, Marine Inspection, for all alterations to systems in service as listed in § 56.01-10(c) of this subchapter and those items listed in paragraph (a) of this section.

(d) Repairs, replacements, or alterations to machinery or items not covered by other sections of this part shall be made in a manner consistent with the part of this subchapter containing the construction standards for the item in question.

(e) Where applicable, manufacturers’ instruction books, manuals, and the like, and section VII of the ASME Boiler and Pressure Vessel Code (incorporated by reference; see 46 CFR 59.01-2) must be used for guidance.

[CGFR 68-82, 33 FR 18887, Dec. 18, 1968, as amended by USCG-2003-16630, 73 FR 65189, Oct. 31, 2008]

## 46 CFR Ch. I (10-1-12 Edition)

### Subpart 59.10—Welding Repairs to Boilers and Pressure Vessels in Service

#### § 59.10-1 Scope.

(a) Repairs to boilers or pressure vessels in service may be performed by welding provided the welding meets the applicable requirements of part 57 of this subchapter.

(b) No repairs by welding shall be made except temporary emergency repairs without prior approval of the Officer in Charge, Marine Inspection. Emergency repairs shall be replaced with permanent repairs meeting the requirements of this subchapter when the vessel returns to a port in which an Officer in Charge, Marine Inspection, is located except in the case of minor repairs which in the opinion of the Officer in Charge, Marine Inspection, do not materially affect the safety of the boiler or pressure vessel.

(c) Repair welding of power boilers, not meeting the requirements of subpart 52.05 of this subchapter, is prohibited unless the stress is carried by such other type(s) of construction complying with the requirements of this subchapter, and where the adequacy of the boiler design is not solely dependent upon the strength of the welds.

(d) Only welded repairs as specified in this subchapter are permitted on boilers and pressure vessels. The welding repairs allowed by this subpart apply only to boilers and pressure vessels fabricated of carbon steel. Welding repairs to boilers and pressure vessels fabricated of alloy steel will be given special consideration by the Commandant. Such other method of repairs by means of welding not covered in this subchapter shall be referred to the Commandant and may be authorized by him, if in his opinion, it meets the intent of this subchapter.

#### § 59.10-5 Cracks.

(a) Cracks extending from the calking edge of plates to the rivet holes of circumferential joints may be welded provided the cracks are veed out so that complete penetration of the weld metal is secured.

(b) Circumferential cracks from rivet hole to rivet hole in girth joints may be welded provided there are not more