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17. *Food Bins and Tanks*, Data Sheet 524; National Safety Council, 425 North Michigan Avenue, Chicago, Illinois 60611.

18. *Pneumatic Dust Control in Grain Elevators*; National Academy of Sciences, Washington, DC. (Available from National Technical Information Service, Springfield, Virginia 22151.)

19. *Dust Control Analysis and Layout Procedures for Grain Storage and Processing Plants*; Mill Mutual Fire Prevention Bureau, 1 Pierce Place, Suite 1260 West, Itasca, Illinois 60143-1269.

20. *Standard for the Installation of Blower and Exhaust Systems for Dust, Stock and Vapor Removal*, NFPA 91; National Fire Protection Association, Batterymarch Park, Quincy, Massachusetts 02269.

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22. *Guidelines for Lubrication and Bearing Maintenance*; Mill Mutual Fire Prevention Bureau, 1 Pierce Place, Suite 1260 West, Itasca, Illinois 60143-1269.

23. *Organized Maintenance in Grain and Milling Properties*; Mill Mutual Fire Prevention Bureau, 1 Pierce Place, Suite 1260 West, Itasca, Illinois 60143-1269.

24. *Safe and Efficient Elevator Legs for Grain and Milling Properties*; Mill Mutual Fire Prevention Bureau, 1 Pierce Place, Suite 1260 West, Itasca, Illinois 60143-1269.

25. *Explosion Venting and Suppression of Bucket Elevators*; National Grain and Feed Association, P.O. Box 28328, Washington, DC 20005.

26. *Lightning Protection Code*, NFPA 78; National Fire Protection Association, Batterymarch Park, Quincy, Massachusetts 02269.

27. *Occupational Safety in Grain Elevators*, DHHS (NIOSH) Publication No. 83-126; National Institute for Occupational Safety and Health, Morgantown, West Virginia 26505.

28. *Retrofitting and Constructing Grain Elevators*; National Grain and Feed Association, P.O. Box 28328, Washington, DC 20005.

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[52 FR 49625, Dec. 31, 1987, as amended at 53 FR 17696, May 18, 1988; 54 FR 24334, June 7, 1989; 55 FR 25094, June 20, 1990; 61 FR 9242, Mar. 7, 1996; 61 FR 9584, Mar. 8, 1996; 67 FR 67965, Nov. 7, 2002; 76 FR 80740, Dec. 27, 2011]

Subpart S—Electrical

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GENERAL

§ 1910.301 Introduction.

This subpart addresses electrical safety requirements that are necessary for the practical safeguarding of employees in their workplaces and is divided into four major divisions as follows:

(a) *Design safety standards for electrical systems*. These regulations are contained in §§ 1910.302 through 1910.330. Sections 1910.302 through 1910.308 contain design safety standards for electric utilization systems. Included in this category are all electric equipment and installations used to provide electric power and light for employee workplaces. Sections 1910.309 through 1910.330 are reserved for possible future design safety standards for other electrical systems.

(b) *Safety-related work practices*. These regulations will be contained in §§ 1910.331 through 1910.360.

(c) *Safety-related maintenance requirements*. These regulations will be contained in §§ 1910.361 through 1910.380.

(d) *Safety requirements for special equipment*. These regulations will be contained in §§ 1910.381 through 1910.398.

§ 1910.302

(e) *Definitions.* Definitions applicable to each division are contained in § 1910.399.

[46 FR 4056, Jan. 16, 1982; 46 FR 40185, Aug. 7, 1981]

DESIGN SAFETY STANDARDS FOR ELECTRICAL SYSTEMS

SOURCE: Sections 1910.302 through 1910.308 appear at 72 FR 7190, Feb. 14, 2007, unless otherwise noted.

§ 1910.302 Electric utilization systems.

Sections 1910.302 through 1910.308 contain design safety standards for electric utilization systems.

(a) *Scope*—(1) *Covered.* The provisions of §§ 1910.302 through 1910.308 cover electrical installations and utilization equipment installed or used within or on buildings, structures, and other premises, including:

- (i) Yards;
- (ii) Carnivals;
- (iii) Parking and other lots;
- (iv) Mobile homes;
- (v) Recreational vehicles;
- (vi) Industrial substations;
- (vii) Conductors that connect the installations to a supply of electricity; and
- (viii) Other outside conductors on the premises.

(2) *Not covered.* The provisions of §§ 1910.302 through 1910.308 do not cover:

- (i) Installations in ships, watercraft, railway rolling stock, aircraft, or automotive vehicles other than mobile homes and recreational vehicles;
- (ii) Installations underground in mines;
- (iii) Installations of railways for generation, transformation, transmission, or distribution of power used exclusively for operation of rolling stock or installations used exclusively for signaling and communication purposes;
- (iv) Installations of communication equipment under the exclusive control of communication utilities, located outdoors or in building spaces used exclusively for such installations; or
- (v) Installations under the exclusive control of electric utilities for the purpose of communication or metering; or for the generation, control, transformation, transmission, and distribution of electric energy located in build-

29 CFR Ch. XVII (7–1–17 Edition)

ings used exclusively by utilities for such purposes or located outdoors on property owned or leased by the utility or on public highways, streets, roads, etc., or outdoors by established rights on private property.

(b) *Extent of application*—(1) *Requirements applicable to all installations.* The following requirements apply to all electrical installations and utilization equipment, regardless of when they were designed or installed:

- § 1910.303(b)—Examination, installation, and use of equipment
 - § 1910.303(c)(3)—Electrical connections—Splices
 - § 1910.303(d)—Arcing parts
 - § 1910.303(e)—Marking
 - § 1910.303(f), except (f)(4) and (f)(5)—Disconnecting means and circuits
 - § 1910.303(g)(2)—600 volts or less—Guarding of live parts
 - § 1910.304(a)(3)—Use of grounding terminals and devices
 - § 1910.304(f)(1)(i), (f)(1)(iv), and (f)(1)(v)—Overcurrent protection—600 volts, nominal, or less
 - § 1910.304(g)(1)(ii), (g)(1)(iii), (g)(1)(iv), and (g)(1)(v)—Grounding—Systems to be grounded
 - § 1910.304(g)(4)—Grounding—Grounding connections
 - § 1910.304(g)(5)—Grounding—Grounding path
 - § 1910.304(g)(6)(iv)(A) through (g)(6)(iv)(D), and (g)(6)(vi)—Grounding—Supports, enclosures, and equipment to be grounded
 - § 1910.304(g)(7)—Grounding—Nonelectrical equipment
 - § 1910.304(g)(8)(i)—Grounding—Methods of grounding fixed equipment
 - § 1910.305(g)(1)—Flexible cords and cables—Use of flexible cords and cables
 - § 1910.305(g)(2)(ii) and (g)(2)(iii)—Flexible cords and cables—Identification, splices, and terminations
 - § 1910.307, except as specified in § 1910.307(b)—Hazardous (classified) locations
- (2) *Requirements applicable to installations made after March 15, 1972.* Every electrical installation and all utilization equipment installed or overhauled after March 15, 1972, shall comply with the provisions of §§ 1910.302 through 1910.308, except as noted in paragraphs (b)(3) and (b)(4) of this section.