

## § 17.54

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|---------------------|--------------------------|
| 700-Watt lamp ..... | No. 700 PS-40 (6,000 h). |
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<sup>1</sup>Copies of this specification can be obtained from the Specification Activity, Building 197, Room 301, Naval Weapons Plant, 1st and N Streets, SE., Washington, D.C. 20407.

<sup>2</sup>Copies of Military specifications can be obtained by contacting the Commanding Officer, Naval Publications and Forms Center, 5801 Tabor Ave., Attention: NPPC-105, Philadelphia, Pa. 19120.

<sup>3</sup>Copies of Federal Aviation Administration specifications may be obtained from the Chief, Configuration Control Branch, AAF-110, Department of Transportation, Federal Aviation Administration, 800 Independence Avenue SW., Washington, D.C. 20591.

<sup>4</sup>Copies of Federal Aviation Administration advisory circulars may be obtained from the Department of Transportation, Publications Section, TAD-443.1, 400 7th St. SW., Washington, D.C. 20590.

[33 FR 11540, Aug. 14, 1968, as amended at 40 FR 30267, July 18, 1975]

### § 17.54 Rated lamp voltage.

To insure the necessary lumen output by obstruction lights, the rated voltage of incandescent lamps used shall correspond to be within 3 percent higher than the voltage across the lamp socket during the normal hours of operation.

[42 FR 54826, Oct. 11, 1977]

### § 17.56 Maintenance of lighting equipment.

Replacing or repairing of lights, automatic indicators or automatic control or alarm systems shall be accomplished as soon as practicable.

[79 FR 56986, Sept. 24, 2014]

### § 17.57 Report of radio transmitting antenna construction, alteration, and/or removal.

The owner of an antenna structure for which an Antenna Structure Registration Number has been obtained must notify the Commission within 5 days of completion of construction (FCC Form 854-R) and/or dismantlement (FCC Form 854). The owner must also notify the Commission within 5 days of any change in structure height or change in ownership information (FCC Form 854).

[79 FR 56987, Sept. 24, 2014]

### § 17.58 [Reserved]

## PART 18—INDUSTRIAL, SCIENTIFIC, AND MEDICAL EQUIPMENT

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AUTHORITY: 47 U.S.C. 4, 301, 302, 303, 304, 307.

SOURCE: 50 FR 36067, Sept. 5, 1985, unless otherwise noted.

### Subpart A—General Information

#### § 18.101 Basis and purpose.

The rules in this part, in accordance with the applicable treaties and agreements to which the United States is a party, are promulgated pursuant to section 302 of the Communications Act of 1934, as amended, vesting the Federal Communications Commission with authority to regulate industrial, scientific, and medical equipment (ISM) that emits electromagnetic energy on frequencies within the radio frequency spectrum in order to prevent harmful interference to authorized radio communication services. This part sets forth the conditions under which the equipment in question may be operated.

#### § 18.107 Definitions.

(a) *Radio frequency (RF) energy.* Electromagnetic energy at any frequency in the radio spectrum from 9 kHz to 3 THz (3,000 GHz).

(b) *Harmful interference.* Interference which endangers the functioning of a

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radionavigation service or of other safety services or seriously degrades, obstructs or repeatedly interrupts a radiocommunication service operating in accordance with this chapter.

(c) *Industrial, scientific, and medical (ISM) equipment.* Equipment or appliances designed to generate and use locally RF energy for industrial, scientific, medical, domestic or similar purposes, excluding applications in the field of telecommunication. Typical ISM applications are the production of physical, biological, or chemical effects such as heating, ionization of gases, mechanical vibrations, hair removal and acceleration of charged particles.

(d) *Industrial heating equipment.* A category of ISM equipment used for or in connection with industrial heating operations utilized in a manufacturing or production process.

(e) *Medical diathermy equipment.* A category of ISM equipment used for therapeutic purposes, not including surgical diathermy apparatus designed for intermittent operation with low power.

(f) *Ultrasonic equipment.* A category of ISM equipment in which the RF energy is used to excite or drive an electromechanical transducer for the production of sonic or ultrasonic mechanical energy for industrial, scientific, medical or other noncommunication purposes.

(g) *Consumer ISM equipment.* A category of ISM equipment used or intended to be used by the general public in a residential environment, notwithstanding use in other areas. Examples are domestic microwave ovens, jewelry cleaners for home use, ultrasonic humidifiers.

(h) *ISM frequency.* A frequency assigned by this part for the use of ISM equipment. A specified tolerance is associated with each ISM frequency. See § 18.301.

(i) *Marketing.* As used in this part, marketing shall include sale or lease, offer for sale or lease, advertising for sale or lease, the import or shipment or other distribution for the purpose of sale or lease or offer for sale or lease. See subpart I of part 2 of this chapter.

(j) *Magnetic resonance equipment.* A category of ISM equipment in which RF energy is used to create images and

data representing spatially resolved density of transient atomic resources within an object.

NOTE: In the foregoing, sale (or lease) shall mean sale (or lease) to the user or a vendor who in turn sells (or leases) to the user. Sale shall not be construed to apply to devices sold to a second party for manufacture or fabrication into a device which is subsequently sold (or leased) to the user.

[50 FR 36067, Sept. 5, 1985, as amended at 59 FR 39472, Aug. 3, 1994]

### § 18.109 General technical requirements.

ISM equipment shall be designed and constructed in accordance with good engineering practice with sufficient shielding and filtering to provide adequate suppression of emissions on frequencies outside the frequency bands specified in § 18.301.

### § 18.111 General operating conditions.

(a) Persons operating ISM equipment shall not be deemed to have any vested or recognizable right to the continued use of any given frequency, by virtue of any prior equipment authorization and/or compliance with the applicable rules.

(b) Subject to the exceptions in paragraphs (c) and (d) of this section and irrespective of whether the equipment otherwise complies with the rules in this part, the operator of ISM equipment that causes harmful interference to any authorized radio service shall promptly take whatever steps may be necessary to eliminate the interference.

(c) The provisions of paragraph (b) of this section shall not apply in the case of interference to an authorized radio station or a radiocommunication device operating in an ISM frequency band.

(d) The provisions of paragraph (b) of this section shall not apply in the case of interference to a receiver arising from direct intermediate frequency pickup by the receiver of the fundamental frequency emissions of ISM equipment operating in an ISM frequency band and otherwise complying with the requirements of this part.