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## **TITLE 216 – DEPARTMENT OF HEALTH**

### **CHAPTER 40 – PROFESSIONAL LICENSING AND FACILITY REGULATION**

#### **SUBCHAPTER 20 – RADIATION**

##### **PART 14 – Radiation Safety Requirements for Microwave Ovens**

#### **14.1 Authority**

- A. This Part is promulgated pursuant to the authority conferred under R.I. Gen. Laws § 23-1.3-5.
- B. This Part establishes radiation safety requirements (performance standards) for microwave ovens manufactured after October 6, 1971.

#### **14.2 Incorporated Material**

Except as provided in this Part, the requirements of 21 C.F.R. § 1030.10 (2018) are incorporated by reference, not including any further editions or amendments thereof and only to the extent that the provisions therein are not inconsistent with this Part.

#### **14.3 Definitions**

- A. Whenever used in this Part, the following terms shall be construed as follows:
  - 1. “Act” means R.I. Gen. Laws Chapter 23-1.3 entitled "Radiation Control".
  - 2. “Agency” means Rhode Island Radiation Control Agency (RCA), Center for Health Facilities Regulation - Radiation Control Program, Rhode Island Department of Health.
  - 3. “External surface” means the outside surface of the cabinet or enclosure provided by the manufacturer as part of the microwave oven, including doors, door handles, latches, and control knobs.
  - 4. “Equivalent plane-wave power density” means the square of the root-mean-square (rms) electric field strength divided by the impedance of free space (377 ohms).
  - 5. “Microwave oven” means a device designed to heat, cook, or dry food through the application of electromagnetic energy at frequencies assigned by the Federal Communications Commission in the normal ISM heating bands ranging from 890 megahertz to 6,000 megahertz. As defined in this

Part, "microwave ovens" are limited to those manufactured for use in homes, restaurants, food vending, or service establishments, on interstate carriers, and in similar facilities.

#### **14.4 Performance Standards**

Microwave ovens manufactured after October 6, 1971 shall be maintained in compliance with 21 C.F.R. § 1030.10.

#### **14.5 Power Density Limits**

The equivalent plane-wave power density existing in the proximity of the external oven surface shall not exceed one (1) milliwatt per square centimeter ( $\text{cm}^2$ ) at any point five centimeters (5 cm) or more from the external surface of the oven, measured prior to acquisition by a purchaser, and, thereafter, five (5) milliwatts per  $\text{cm}^2$  at any such point.

#### **14.6 Noncompliance**

Any microwave oven manufactured after October 6, 1971 which fails to meet the requirements of this Part or 21 C.F.R. § 1030.10 shall be removed from service until the repairs or modifications necessary to meet the applicable requirements have been made.