

1 **216-RICR-40-20-14**

2 **TITLE 216 – DEPARTMENT OF HEALTH**

3 **CHAPTER 40 – PROFESSIONAL LICENSING & FACILITIES REGULATION**

4 **SUBCHAPTER 20 - RADIATION**

5 **PART 14 – RADIATION SAFETY REQUIREMENTS FOR MICROWAVE OVENS**

6 **14.1 Authority**

7 A. This Part is promulgated pursuant to the authority conferred under R.I. Gen.  
8 Laws § [23-1.3-5\(f\)](#), as amended.

9 B. This Part establishes radiation safety requirements (performance standards) for  
10 microwave ovens manufactured after 6 October 1971.

11 **14.2 Incorporated Material**

12 A. Except as provided in this Part, the requirements of 21 CFR § 1030.10 (2018)  
13 [https://www.accessdata.fda.gov/scripts/cdrh/cfdocs/cfcfr/CFRSearch.cfm?CFRP  
15 art=1030&showFR=1](https://www.accessdata.fda.gov/scripts/cdrh/cfdocs/cfcfr/CFRSearch.cfm?CFRP<br/>14 art=1030&showFR=1) are incorporated by reference, not including any further  
16 editions or amendments thereof and only to the extent that the provisions therein  
are not inconsistent with this Part.

17 **14.3 Definitions**

18 A. Whenever used in this Part, the following terms shall be construed as follows:

19 “Act” means Title 23, Chapter 1.3 of the General Laws of the State of Rhode  
20 Island entitled "Radiation Control".

21 “Agency” means Rhode Island Radiation Control Agency (RCA), Center for  
22 Health Facilities Regulation - Radiation Control Program, Rhode Island  
23 Department of Health.

24 “External surface” means the outside surface of the cabinet or enclosure  
25 provided by the manufacturer as part of the microwave oven, including doors,  
26 door handles, latches, and control knobs.

27 “Equivalent plane-wave power density” means the square of the root-mean-  
28 square (rms) electric field strength divided by the impedance of free space (377  
29 ohms).

30 “Microwave oven” means a device designed to heat, cook, or dry food through  
31 the application of electromagnetic energy at frequencies assigned by the Federal

1 Communications Commission in the normal ISM heating bands ranging from 890  
2 megahertz to 6,000 megahertz. As defined in this Part, “microwave ovens” are  
3 limited to those manufactured for use in homes, restaurants, food vending, or  
4 service establishments, on interstate carriers, and in similar facilities.

5 “R.I. Gen. Laws” means the General Laws of Rhode Island, as amended.

#### 6 **14.4 Performance Standards**

7 Microwave ovens manufactured after 6 October 1971 shall be maintained in  
8 compliance with 21 CFR § 1030.10.

#### 9 **14.5 Power Density Limits**

10 The equivalent plane-wave power density existing in the proximity of the external  
11 oven surface shall not exceed one (1) milliwatt per square centimeter (cm<sup>2</sup>) at  
12 any point five centimeters (5 cm) or more from the external surface of the oven,  
13 measured prior to acquisition by a purchaser, and, thereafter, five (5) milliwatts  
14 per cm<sup>2</sup> at any such point.

#### 15 **14.6 Noncompliance**

16 Any microwave oven manufactured after 6 October 1971 which fails to meet the  
17 requirements of this Part or 21 CFR § 1030.10 shall be removed from service  
18 until the repairs or modifications necessary to meet the applicable requirements  
19 have been made.