

**WAC 296-32-22574 Hazardous areas.** Protection from radiation exposure.

(1) Employees must not enter areas where radio frequency radiation (RFR) exposure levels are above the general population/uncontrolled MPEs described in 47 C.F.R. 1.1310 unless they understand the potential for exposure and can exercise control over the exposure.

(2) Hazardous area. Accessible areas associated with communication systems where the electromagnetic radiation level exceeds the maximum permissible exposure limits (PELs) given in WAC 296-62-09005 must be posted as described in that section.

**Note:** ANSI 535.1, 2006, Safety Colors, ANSI C95.2, 1999, IEEE Standard for Radio Frequency Energy and Current Flow Symbols, ANSI Z535.2, 2011, Environmental and Safety Signs contains additional information relating to signage.

(3) Protective measures. When an employee works in an area where the electromagnetic radiation exceeds the radiation protection guide, the employer must institute measures that ensure that the employee's exposure is not greater than that permitted by the radiation guide. Such measures must include, but not be limited to, those of an administrative or engineering nature or those involving personal protective equipment. Employers must have monitoring devices on each site while work is being performed.

(4) Radiofrequency radiation exposure limits. The criteria listed in Table 4 must be used to evaluate the environmental impact of human exposure to radiofrequency (RF) radiation as specified in 47 C.F.R. Sec. 1.1307(b), except in the case of portable devices which must be evaluated according to the provisions of 47 C.F.R. Sec. 2.1093. Further information on evaluating compliance with these limits can be found in the FCC's OST/OET Bulletin Number 65, "Evaluating Compliance with FCC-Specified Guidelines for Human Exposure to Radiofrequency Radiation." **Note to Introductory Paragraph:** These limits are generally based on recommended exposure guidelines published by the National Council on Radiation Protection and Measurements (NCRP) in "Biological Effects and Exposure Criteria for Radiofrequency Electromagnetic Fields," NCRP Report No. 86, sections 17.4.1, 17.4.1.1, 17.4.2 and 17.4.3. Copyright NCRP, 1986, Bethesda, Maryland 20814. In the frequency range from 100 MHz to 1500 MHz, exposure limits for field strength and power density are also generally based on guidelines recommended by the American National Standards Institute (ANSI) in section 4.1 of "IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz," ANSI/IEEE C95.1-1992, Copyright 1992 by the Institute of Electrical and Electronics Engineers, Inc., New York, New York 10017.

**Table 4**

Table 4—Limits for Maximum Permissible Exposure (MPE) Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm <sup>2</sup> )	Averaging time (minutes)
<b>(A) Limits for Occupational/Controlled Exposures</b>				
0.3-3.0	614	1.63	*(100)	6
3.0-30	1842/f	4.89/f	*(900/f <sup>2</sup> )	6
30-300	61.4	0.163	1.0	6
300-1500			f/300	6
1500-100,000			5	6
<b>(B) Limits for General Population/Uncontrolled Exposure</b>				

Table 4—Limits for Maximum Permissible Exposure (MPE) Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm <sup>2</sup> )	Averaging time (minutes)
0.3-1.34	614	1.63	*(100)	30
1.34-30	824/f	2.19/f	*(180/f <sup>2</sup> )	30
30-300	27.5	0.073	0.2	30
300-1500			f/1500	30
1500-100,000			1.0	30

f = frequency in MHz

\* = Plane-wave equivalent power density

**Note 1 to Table 4:** Occupational/controlled limits apply in situations in which persons are exposed as a consequence of their employment provided those persons are fully aware of the potential for exposure and can exercise control over their exposure. Limits for occupational/controlled exposure also apply in situations when an individual is transient through a location where occupational/controlled limits apply provided he or she is made aware of the potential for exposure.

**Note 2 to Table 4:** General population/uncontrolled exposures apply in situations in which the general public may be exposed, or in which persons that are exposed as a consequence of their employment may not be fully aware of the potential for exposure or cannot exercise control over their exposure.

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, and 49.17.060. WSR 20-20-109, § 296-32-22574, filed 10/6/20, effective 11/6/20. Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, 49.17.060, and chapter 49.17 RCW. WSR 17-20-069, § 296-32-22574, filed 10/2/17, effective 1/1/18.]