3. Definitions

For the purposes of this standard, the following terms and definitions apply. IEEE Std 100-1996 should be referenced for terms not defined in this clause.

3.1 average (temporal) power (P_{avg}): The time-averaged rate of energy transfer.

$$P_{\text{avg}} = \frac{1}{t_2 - t_1}\int_{t_1}^{t_2} P(t)\,dt$$

where

$P(t)$ is the instantaneous power,

t_1 is the initial time,

t_2 is the final time of the interval over which $P(t)$ is averaged.

3.2 averaging time (T_{avg}): The appropriate time period over which exposure is averaged for purposes of determining compliance with a maximum permissible exposure (MPE). For exposure durations less than the averaging time, the maximum exposure, *MPE*', in any time interval equal to the averaging time is found from

$$MPE' = MPE\left(\frac{T_{\text{avg}}}{T_{\text{exp}}}\right)$$

where

T_{exp} is the exposure duration in that interval expressed in the same units as T_{avg}. (Restrictions on peak power density limit T_{exp}.)

3.3 continuous exposure: Exposure for durations exceeding the corresponding averaging time. Exposure for less than the averaging time is called *short-term exposure*.

3.4 controlled environment: Location where there is exposure that may be incurred by persons who are aware of the potential for exposure as a concomitant of employment, by other cognizant persons, or as the incidental result of transient passage through areas where analysis shows the exposure levels may be above those shown in Table 2 but do not exceed those in Table 1, and where the induced currents may exceed the values in Table 2, Part B, but do not exceed the values in Table 1, Part B.[3]

3.5 duty factor: The ratio of pulse duration to the pulse period of a periodic pulse train. A duty factor of 1.0 corresponds to continuous-wave (CW) operation.

3.6 electric field strength (*E*): A field vector quantity that represents the force (***F***) on a positive test charge (q) at a point divided by the charge.

$$\boldsymbol{E} = \frac{\boldsymbol{F}}{q}$$

Electric field strength is expressed in units of volts per meter (V/m).

[3]The means for the identification of these areas is at the discretion of the operator of a source.

3.7 energy density (electromagnetic field): The electromagnetic energy contained in an infinitesimal volume divided by that volume.

3.8 exposure: The subjection of a person to electric, magnetic, or electromagnetic fields or to contact currents other than those originating from physiological processes in the body and other natural phenomena.

3.9 exposure, partial-body: Exposure that results when RF fields are substantially nonuniform over the body. Fields that are nonuniform over volumes comparable to the human body may occur due to highly directional sources, standing-waves, re-radiating sources, or in the near field region of a radiating structure. *See* **RF "hot spot."**

3.10 far-field region: That region of the field of an antenna where the angular field distribution is essentially independent of the distance from the antenna. In this region (also called the free space region), the field has a predominantly plane-wave character, i.e., locally uniform distributions of electric field strength and magnetic field strength in planes transverse to the direction of propagation.

3.11 hertz (Hz): The unit for expressing frequency, f. One hertz equals one cycle per second.

3.12 magnetic field strength ($\boldsymbol{H}$): A field vector that is equal to the magnetic flux density divided by the permeability of the medium. Magnetic field strength is expressed in units of amperes per meter (A/m).

3.13 magnetic flux density ($\boldsymbol{B}$): A field vector quantity that results in a force ($\boldsymbol{F}$) that acts on a moving charge or charges. The vector product of the velocity ($\boldsymbol{v}$) at which an infinitesimal unit test charge, q, is moving with $\boldsymbol{B}$, is the force that acts on the test charge divided by q.

$$\frac{\boldsymbol{F}}{q} = (\boldsymbol{v} \times \boldsymbol{B})$$

Magnetic flux density is expressed in units of tesla (T). One tesla is equal to 10^4 gauss (G).

3.14 maximum permissible exposure (MPE): The rms and peak electric and magnetic field strengths, their squares, or the plane-wave equivalent power densities associated with these fields and the induced and contact currents to which a person may be exposed without harmful effect and with an acceptable safety factor.

3.15 mixed frequency fields: The superposition of two or more electromagnetic fields of differing frequency.

3.16 near-field region: A region generally in proximity to an antenna or other radiating structure, in which the electric and magnetic fields do not have a substantially plane-wave character, but vary considerably from point to point. The near-field region is further subdivided into the reactive near-field region, which is closest to the radiating structure and that contains most or nearly all of the stored energy, and the radiating near-field region where the radiation field predominates over the reactive field, but lacks substantial plane-wave character and is complicated in structure.

NOTE—For most antennas, the outer boundary of the reactive near-field region is commonly taken to exist at a distance of one-half wavelength from the antenna surface.

3.17 penetration depth: For a plane electromagnetic wave incident on the boundary of a medium, the distance from the boundary into the medium along the direction of propagation in the medium, at which the field strengths of the wave have been reduced to $1/e$ (~36.8%) of the boundary values.

3.18 power density, average (temporal): The instantaneous power density integrated over a source repetition period.

3.19 power density (*S*): Power per unit area normal to the direction of propagation, usually expressed in units of watts per square meter (W/m^2) or, for convenience, units such as milliwatts per square centimeter (mW/cm^2) or microwatts per square centimeter ($\mu W/cm^2$). For plane waves, power density, electric field strength (*E*), and magnetic field strength (*H*) are related by the impedance of free space, i.e., 377 Ω. In particular,

$$S = \frac{E^2}{377} = 377H^2$$

where *E* and *H* are expressed in units of V/m and A/m, respectively, and *S* in units of W/m^2. Although many survey instruments indicate power density units, the actual quantities measured are *E* or E^2 or *H* or H^2.

3.20 power density, peak: The maximum instantaneous power density occurring when power is transmitted.

3.21 power density, plane-wave equivalent: A commonly used term associated with any electromagnetic wave, equal in magnitude to the power density of a plane wave having the same electric (E) or magnetic (H) field strength.

3.22 pulse modulated field: An electromagnetic field produced by the amplitude modulation of a continuous wave carrier by one or more pulses.

3.23 radio frequency (RF): A frequency that is useful for radio transmission.

NOTE—Although the RF spectrum is formally defined in terms of frequency as extending from 0 to 3000 GHz, for purposes of this standard, the frequency range of interest is 3 kHz to 300 GHz.

3.24 re-radiated field: An electromagnetic field resulting from currents induced in a secondary, predominantly conducting, object by electromagnetic waves incident on that object from one or more primary radiating structures or antennas. Re-radiated fields are sometimes called “reflected” or more correctly “scattered fields.” The scattering object is sometimes called a “re-radiator” or “secondary radiator.” *See* **scattered radiation.**

3.25 RF “hot spot”: A highly localized area of relatively more intense radio-frequency radiation that manifests itself in two principal ways:

a) The presence of intense electric or magnetic fields immediately adjacent to conductive objects that are immersed in lower intensity ambient fields (often referred to as re-radiation), and
b) Localized areas, not necessarily immediately close to conductive objects, in which there exists a concentration of radio-frequency fields caused by reflections and/or narrow beams produced by high-gain radiating antennas or other highly directional sources. In both cases, the fields are characterized by very rapid changes in field strength with distance.

RF hot spots are normally associated with very nonuniform exposure of the body (partial body exposure). This is *not* to be confused with an actual thermal hot spot within the absorbing body.

3.26 root-mean-square (rms): The effective value, or the value associated with joule heating, of a periodic electromagnetic wave. The rms value is obtained by taking the square root of the mean of the squared value of a function.

3.27 scattered radiation: An electromagnetic field resulting from currents induced in a secondary, conducting or dielectric object by electromagnetic waves incident on that object from one or more primary sources.

3.28 short-term exposure: Exposure for durations less than the corresponding averaging time.

3.29 spatial average: The root mean square of the field over an area equivalent to the vertical cross section of the adult human body, as applied to the measurement of electric or magnetic fields in the assessment of whole-body exposure. The spatial average is measured by scanning (with a suitable measurement probe) a planar area equivalent to the area occupied by a standing adult human (projected area). In most instances, a simple vertical, linear scan of the fields over a 2 meter height (approximately 6 feet), through the center of the projected area, will be sufficient for determining compliance with the maximum permissible exposures (MPEs).

3.30 specific absorption (SA): The quotient of the incremental energy (*dW*) absorbed by (dissipated in) an incremental mass (*dm*) contained in a volume (*dV*) of a given density (ρ).

$$SA = \frac{dW}{dm} = \frac{dW}{\rho dV}$$

The specific absorption is expressed in units of joules per kilogram (J/kg).

3.31 specific absorption rate (SAR): The time derivative of the incremental energy (*dW*) absorbed by (dissipated in) an incremental mass (*dm*) contained in a volume element (*dV*) of given density (ρ).

$$SAR = \frac{d}{dt}\left(\frac{dW}{dm}\right) = \frac{d}{dt}\left(\frac{dW}{\rho dV}\right)$$

SAR is expressed in units of watts per kilogram (W/kg).

3.32 uncontrolled environment: Locations where there is the exposure of individuals who have no knowledge or control of their exposure.

NOTE—The exposures may occur in living quarters or workplaces where there are no expectations that the exposure levels may exceed those shown in Table 2 and where the induced currents do not exceed those in Table 2, Part B. Transitory exposures are treated in 4.1.1.

3.33 wavelength (λ): Of a monochromatic wave, the distance between two points of corresponding phase of two consecutive cycles in the direction of propagation. The wavelength (λ) of an electromagnetic wave is related to the frequency (f) and velocity (v) by the expression $v = f\lambda$. In free space the velocity of an electromagnetic wave is equal to the speed of light, i.e., approximately 3×10^8 m/s.

4. Recommendations

4.1 Maximum permissible exposure (MPE)

4.1.1 MPE in controlled environments

For human exposure in controlled environments to electromagnetic energy at radio frequencies from 3 kHz to 300 GHz, the MPE, in terms of rms electric (*E*) and magnetic (*H*) field strengths, the equivalent plane-wave free-space power densities (*S*) and the induced currents (*I*) in the body that can be associated with exposure to such fields or contact with objects exposed to such fields, is given in Table 1 as a function of frequency. Exposure associated with a controlled environment includes exposure that may be incurred by persons who are aware of the potential for exposure as a concomitant of employment, exposure of other cognizant individuals, or exposure that is the incidental result of passage through areas where analysis shows the exposure levels may be above those shown in Table 2, but do not exceed those in Table 1, and where the induced currents may exceed the values in Table 2, Part B, but do not exceed the values in Table 1, Part B.[4]

Table 1—Maximum permissible exposure for controlled environments*

Part A: Electromagnetic fields†				
Frequency range (MHz) 1	**Electric field strength (E) (V/m) 2**	**Magnetic field strength (H) (A/m) 3**	**Power density (S) E-field, H-field (mW/cm^2) 4**	**Averaging time $\|E\|^2$, $\|H\|^2$ or S (min) 5**
0.003–0.1	614	163	(100, 1 000 000)‡	6
0.1–3.0	614	16.3 / f	(100, 10 000 / f^2)‡	6
3–30	1842 / f	16.3 / f	(900 / f^2, 10 000 / f^2)	6
30–100	61.4	16.3 / f	(1.0, 10 000 / f^2)	6
100–300	61.4	0.163	1.0	6
300–3000	—	—	f / 300	6
3000–15 000	—	—	10	6
15 000–300 000	—	—	10	616 000 / $f^{1.2}$
Note—f is the frequency in MHz.				

*See Figure E.1 and Figure E.2 for graphical depictions of MPEs.
†The exposure values in terms of electric and magnetic field strengths are the mean values obtained by spatially averaging the squares of the fields over an area equivalent to the vertical cross section of the human body (projected area).
‡These plane-wave equivalent power density values, although not appropriate for near-field conditions, are commonly used as a convenient comparison with MPEs at higher frequencies and are displayed on some instruments in use.

Part B: Induced and contact radio frequency currents*			
Frequency range (MHz)	**Maximum current (mA)**		**Contact**
	Through both feet	**Through each foot**	
0.003–0.1	2000 f	1000 f	1000 f
0.1–100	200	100	100
Note—f is the frequency in MHz.			

*It should be noted that the current limits given above may not adequately protect against startle reactions and burns caused by transient discharges when contacting an energized object. (See text for additional comment and see Figure E.3 for a graphical depiction.)

a) In a controlled environment, access should be restricted to limit the rms RF body current (averaged over the appropriate averaging time) as follows:
   1) For freestanding individuals (no contact with metallic objects), RF current induced in the human body, as measured through each foot, should not exceed the following values:

[4]The means for the identification of these areas is at the discretion of the operator of a source.

$\bar{I} = 1000f$ mA (for $0.003 < f \le 0.1$ MHz)

where

$\bar{I}$ is the average over any 1 second period,

f is the frequency in MHz.

$\tilde{I} = 100$ mA (for $0.1 < f < 100$ MHz) subject to a ceiling limit of 500 mA

where

$\tilde{I}$ is the rms current during any 6 minute period.

2) For conditions of possible contact with metallic bodies, where making or breaking the contact does not result in any momentary spark discharge or high skin-surface current density causing startle reaction, pain, burns, or other skin injury, maximum RF currents through an impedance equivalent to that of the human body for conditions of grasping contact [see item (a) of 4.3] as measured with a contact current meter shall not exceed the following values:

$\bar{I} = 1000f$ mA (for $0.003 < f \le 0.1$ MHz)

where

$\bar{I}$ is the average over any 1 second period,

f is the frequency in MHz.

$\tilde{I} = 100$ mA (for $0.1 < f < 100$ MHz) subject to a ceiling limit of 500 mA

where $\tilde{I}$ is the rms current during any 6 minute period.

$$\bar{I} \equiv \frac{1}{T}\int_0^T |I| \, dt \qquad (f \le 100 \text{ kHz}, T = 1 \text{ s})$$

and

$$\tilde{I} \equiv \left[\frac{1}{T}\int_0^T I^2 \, dt\right]^{\frac{1}{2}} \qquad (f > 100 \text{ kHz}, T = 360 \text{ s})$$

The means for complying with this current limit can be determined by the user of the MPE as appropriate. The use of protective gloves, the prohibition of metallic objects, or training of personnel may be sufficient to assure compliance with this aspect of the MPE in controlled environments.

3) Induced current measurements are not required if the spatially averaged electric field strength does not exceed the MPE at frequencies of 0.45 MHz or less and does not exceed the limits shown in Figure E.6 at frequencies greater than 0.45 MHz.

b) The MPEs refer to exposure values obtained by spatially averaging the squares of the fields over an area equivalent to the vertical cross section of the human body (projected area). In the case of partial-body exposure, the MPEs can be relaxed as described in 4.4. In nonuniform fields, spatial peak values of field strengths may exceed the MPEs if the spatially averaged value remains within the specified limits. The MPEs may also be relaxed by reference to SAR limits in 4.2.1 by appropriate calculations or measurements.

c) The MPE refers to values averaged over any 6 minute period for frequencies less than 15 GHz and over shorter periods for higher frequencies down to 10 s at 300 GHz, as indicated in Table 1.

d) For near-field exposures at frequencies less than 300 MHz, the applicable MPE is in terms of rms electric and magnetic field strength, as given in Table 1, columns 2 and 3. For convenience, the MPE may be expressed as equivalent plane-wave power density, given in Table 1, column 4.

e) For mixed or broadband fields at a number of frequencies for which there are different values of the MPE, the fraction of the MPE [in terms of E^2, H^2, or power density (S)] incurred within each frequency interval should be determined and the sum of all such fractions should not exceed unity. See Annex D for an example of how this is accomplished.

   In a similar manner, for mixed or broadband induced currents at a number of frequencies for which there are different values of the MPE, the fraction of the induced current limits (in terms of I^2) incurred within each frequency interval should be determined, and the sum of all such fractions should not exceed unity.

f) For exposures to pulsed radio frequency fields, in the range of 0.1 to 300 000 MHz, the peak (temporal) value of the MPE in terms of E field is 100 kV/m.

g) For exposures to pulsed radio frequency fields of pulse durations less than 100 milliseconds and frequencies in the range of 0.1 to 300 000 MHz, the MPE, in terms of peak power density for a single pulse, is given by the MPE (Table 1, E-field equivalent power density) multiplied by the averaging time in seconds and divided by 5 times the pulse width in seconds. That is

$$Peak\ MPE = \frac{MPE \times Avg\ Time\ \text{(seconds)}}{5 \times Pulsewidth\ \text{(seconds)}}$$

   A maximum of five such pulses, with a pulse-repetition period of at least 100 ms, is permitted during any period equal to the averaging time [see item (c) of 4.1.1]. If there are more than five pulses during any period equal to the averaging time, or if the pulse durations are greater than 100 ms, normal averaging-time calculations apply, except that during any 100 ms period, the energy density is limited per the above formula, viz

$$\Sigma Peak\ MPE \times Pulsewidth\ \text{(seconds)} = \frac{MPE \times Avg\ Time\ \text{(seconds)}}{5}$$

4.1.2 MPE in uncontrolled environments

For human exposure in uncontrolled environments to electromagnetic energy at radio frequencies from 3 kHz to 300 GHz, the MPE, in terms of rms electric (E) and magnetic (H) field strengths, the equivalent plane-wave free-space power densities (S) and the induced currents (I) in the body that can be associated with exposure to such fields or contact with objects exposed to such fields are given in Table 2 as a function of frequency.

Exposure associated with an uncontrolled environment is the exposure of individuals who have no knowledge or control of their exposure. The exposure may occur in living quarters or workplaces where there are no expectations that the exposure levels may exceed those shown in Table 2, and where the induced currents do not exceed those in Table 2, Part B. Transitory exposures are treated in 4.1.1.

Table 2—Maximum permissible exposure for uncontrolled environments[*]

Part A: Electromagnetic Fields[†]

Frequency range (MHz) **1**	**Electric field strength (E) (V/m)** **2**	**Magnetic field strength (*H*) (A/m)** **3**	**Power density (*S*) E-field, H-field (mW/cm^2)** **4**	**Averaging time (min)** $|E|^2$, ***S*** **5**	**or** $|H|^2$
0.003–0.1	614	163	(100, 1 000 000)[‡]	6	6
0.1–1.34	614	$16.3 / f$	$(100, 10\,000 / f^2)$[‡]	6	6
1.34–3.0	$823.8 / f$	$16.3 / f$	$(180 / f^2, 10\,000 / f^2)$	$f^2 / 0.3$	6
3.0–30	$823.8 / f$	$16.3 / f$	$(180 / f^2, 10\,000 / f^2)$	30	6
30–100	27.5	$158.3 / f^{1.668}$	$(0.2, 940\,000 / f^{3.336}$	30	$0.0636 f^{1.337}$
100–300	27.5	0.0729	0.2	30	30
300–3000	—	—	$f / 1500$	30	
3000–15 000	—	—	$f / 1500$	$90\,000 / f$	
15 000–300 000			10	$616\,000 / f^{1.2}$	

NOTE—*f* is the frequency in MHz.

[*]See Figure E.1 and Figure E.4 for graphical depictions of MPEs.

[†]The exposure values in terms of electric and magnetic field strengths are the mean values obtained by spatially averaging the squares of the fields over an area equivalent to the vertical cross section of the human body (projected area).

[‡]These plane-wave equivalent power density values, although not appropriate for near-field conditions, are commonly used as a convenient comparison with MPEs at higher frequencies and are displayed on some instruments in use.

Part B: Induced and contact radio frequency currents[*]

Frequency range (MHz)	**Maximum current (mA)**		**Contact**
	Through both feet	**Through each foot**	
0.003–0.1	$900 f$	$450 f$	$450 f$
0.1–100	90	45	45

NOTE—*f* is the frequency in MHz.

[*]It should be noted that the current limits given above may not adequately protect against startle reactions and burns caused by transient discharges when contacting an energized object. (See text for additional comment and see Figure E.5 for a graphical depiction.)

a) In uncontrolled environments, where individuals unfamiliar with the phenomenon of induced RF currents may have access, it is recommended that precautions be taken to limit induced currents to values not normally perceptible to individuals, as well as to prevent the possibility of RF burns.

1) For freestanding individuals (no contact with metallic objects), RF current induced in the human body, as measured through each foot, should not exceed the following values:

$\bar{I} = 450f$ mA (for $0.003 < f \le 0.1$ MHz)

where

$\bar{I}$ is the average over any 1 second period,

f is the frequency in MHz.

$\tilde{I} = 45$ mA (for $0.1 < f < 100$ MHz) subject to a ceiling limit of 220 mA

where $\tilde{I}$ is the rms current during any 6 minute period.

2) For conditions of possible contact with metallic bodies, where making or breaking the contact does not result in any momentary spark discharge or high skin-surface current density causing startle reaction, pain, burns, or other skin injury, maximum RF currents through an impedance equivalent to that of the human body for conditions of grasping contact [see item (a) of 4.3] as measured with a contact current meter shall not exceed the following values:

$\bar{I} = 450f$ mA (for $0.003 < f \le 0.1$ MHz)

where

$\bar{I}$ is the average over any 1 second period,

f is the frequency in MHz.

$\tilde{I} = 45$ mA (for $0.1 < f < 100$ MHz) subject to a ceiling limit of 220 mA

where $\tilde{I}$ is the rms current during any 6 minute period.

$$\bar{I} \equiv \frac{1}{T}\int_0^T |I| \, dt \qquad (f \le 100 \text{ kHz}, T = 1 \text{ s})$$

and

$$\tilde{I} \equiv \left[\frac{1}{T}\int_0^T I^2 \, dt\right]^{\frac{1}{2}} \qquad (f > 100 \text{ kHz}, T = 360 \text{ s})$$

3) Induced current measurements are not required if the spatially averaged electric field strength does not exceed the MPE at frequencies of 0.20 MHz or less and does not exceed the limits shown in Figure E.7 at frequencies greater than 0.20 MHz.

b) The MPEs refer to exposure values obtained by spatially averaging the squares of the fields over an area equivalent to the vertical cross section of the human body (projected area). In the case of partial-body exposure, the limits can be relaxed, as described in 4.4. In nonuniform fields, spatial peak values of field strengths may exceed the MPEs if the spatial average value remains within the specified limits. The MPEs may also be relaxed by reference to SAR limits in 4.2.1 by appropriate calculation or measurement.

c) The MPE refers to values averaged over any 6 minute to 30 minute period for frequencies up to 3000 MHz, and over shorter periods for higher frequencies, down to 10 s at 300 GHz, as indicated in Table 2.

d) For near-field exposures at frequencies less than 300 MHz, the applicable MPE is in terms of rms electric and magnetic field strength, as given in Table 2, columns 2 and 3. For convenience, the MPE may be expressed as equivalent plane-wave power density, given in Table 2, column 4.

e) For mixed or broadband fields at a number of frequencies for which there are different values of the MPE, the fraction of the MPE [in terms of E^2, H^2, or power density (S)] incurred within each frequency interval should be determined, and the sum of all such fractions should not exceed unity. See Annex D for an example of how this is accomplished.

   In a similar manner, for mixed or broadband induced currents at a number of frequencies for which there are different values of the MPE, the fraction of the induced current limits (in terms of I^2) incurred within each frequency interval should be determined, and the sum of all such fractions should not exceed unity.

f) For exposures to pulsed radio frequency fields in the range of 0.1 to 300 000 MHz, the peak (temporal) value of the MPE, in terms of E field, is 100 kV/m.

g) For exposures to pulsed radio frequency fields of pulse durations less than 100 ms, and frequencies in the range of 0.1 to 300 000 MHz, the MPE, in terms of peak power density for a single pulse, is given by the MPE (Table 2, E-field equivalent power density), multiplied by the averaging time in seconds, and divided by 5 times the pulse width in seconds. That is

$$Peak\ MPE = \frac{MPE \times Avg\ Time\ \text{(seconds)}}{5 \times Pulsewidth\ \text{(seconds)}}$$

   A maximum of five such pulses, with a pulse-repetition period of at least 100 ms, is permitted during any period equal to the averaging time [see item (c)]. If there are more than five pulses during any period equal to the averaging time, or if the pulse durations are greater than 100 ms, normal averaging-time calculations apply, except that during any 100 ms period, the energy density is limited per the above formula, viz

$$\Sigma Peak\ MPE \times Pulsewidth\ \text{(seconds)} = \frac{MPE \times Avg\ Time\ \text{(seconds)}}{5}$$

4.2 Exclusions

4.2.1 Controlled environment

At frequencies between 100 kHz and 6 GHz, the MPE in controlled environments for electromagnetic field strengths may be exceeded if

a) The exposure conditions can be shown, by appropriate techniques, to produce specific absorption rates (SARs) below 0.4 W/kg as averaged over the whole-body and spatial peak SAR, not exceeding 8 W/kg as averaged over any 1 g of tissue (defined as a tissue volume in the shape of a cube), except for the hands, wrists, feet and ankles where the spatial peak SAR shall not exceed 20 W/kg, as averaged over any 10 g of tissue (defined as a tissue volume in the shape of a cube); and
b) The induced currents in the body conform with the MPE in Table 1, Part B.

Recognition must be given to regions of the body where a 1 or 10 cm^3 volume would contain a mass significantly less than 1 or 10 g, respectively, because of enclosed voids (air). For these regions, the absorbed power should be divided by the actual mass within that volume to obtain the spatial peak SARs.