

for sale to a consumer for use in or around a permanent or temporary household or residence, a school, in recreation, or otherwise, or (ii) for the personal use, consumption or enjoyment of a consumer in or around a permanent or temporary household or residence, a school, in recreation, or otherwise." The term does not include products that are not customarily produced or distributed for sale to, or for the use or consumption by, or enjoyment of, a consumer. A limited exception from coverage of the standard is provided by section 18(a) of the CPSA, 15 U.S.C. 2067, for certain products intended for export and meeting the requirements of section 18(b) of the CPSA.

(d) *Prohibited acts.* It is unlawful to manufacture for sale, offer for sale, distribute in commerce, or import into the United States any product subject to this standard that does not conform with the standard.

(Sec. 9(h), Pub. L. 92-573, 86 Stat. 1207, as amended, Pub. L. 95-319, 92 Stat. 386, Pub. L. 95-631, 92 Stat. 3742, Pub. L. 96-373, 94 Stat. 1366, Pub. L. 97-35, 95 Stat. 703, 15 U.S.C. 2058(h))

[47 FR 36201, Aug. 19, 1982, as amended at 48 FR 29683, June 28, 1983]

§ 1204.2 Definitions.

In addition to the definitions given in section 3 of the Consumer Product Safety Act (15 U.S.C. 2052), the following definitions apply for the purposes of this standard.

(a) *Antenna system* means a device for radiating and/or receiving radio waves. Where they are present, the antenna system includes active elements, ground plane elements, matching networks, element-connecting hardware, mounting hardware, feed cable, and other functional or non-functional elements.

(b) *Antenna-mast system* means the completed assembly of the antenna system and the mast.

(c) *Base station* means a transmitter and/or receiver in a fixed location.

(d) *Citizens Band (CB)* means the frequency band allocated for citizen's band radio service.

(e) *Current* means the total rate at which electrical charge is transported through the antenna-mast system in

response to the applied test voltage, including both capacitive and resistive components.

(f) *Electrical breakdown* means a failure of the insulating material used with the antenna, such that in the Antenna-Mast System Test of §1204.4(e) of this subpart, the current flowing through the antenna-mast system is sufficient to actuate the automatic internal cut-off of the high voltage source or exceeds the current that can be measured by the current monitoring device.

(g) *Feed cable* means the electrical cable that connects the antenna system to the transmitter and/or receiver.

(h) *Field joint* means any joint between antenna system sections or parts, or between the antenna system and the mast, that is not assembled by the antenna manufacturer.

(i) *Insulating material and insulation* mean a material that has a very small electric conductivity.

(j) *Omnidirectional antenna* means an antenna system designed or intended primarily to exhibit approximately equal signal transmission or reception capabilities in all horizontal directions simultaneously.

(k) *Protection zone* means that portion of an antenna system which can contact the test rod during the Insulating Material Effectiveness Test or can contact the power line during the Antenna-Mast System Test. This zone consists of those elements of the antenna system extending from the uppermost tip of an upright antenna downward to a point that is 12.0 inches (30.5 cm) above the top of the mast when the antenna system is mounted according to the manufacturer's instructions.

(l) *Voltage, phase to ground,* means that voltage which exists between a single phase of a three phase power system and ground.

§ 1204.3 Requirements.

All omnidirectional CB base station antennas are required to comply with the following requirements.

(a) *Field joints.* Parts or accessories intended to protect a field joint so that it will meet any other requirement of this standard, and that must be put into place by the person assembling the

§ 1204.4

16 CFR Ch. II (1-1-02 Edition)

antenna system, shall be integral with, or not readily removable from, at least one of the antenna sections or parts involved in the joint or shall be necessary in order to complete the joint.

(b) *Feed cable.* When compliance with the requirements of this standard depends on the insulating or other properties of the feed cable, at least 50 feet of the cable shall be supplied by the manufacturer with the antenna system.

(c) *Electrical protection.* Antenna systems shall be manufactured so that if all points within the protection zone of an antenna system were tested by the Insulating Material Effectiveness Test of § 1204.4(d) of this subpart, and the Antenna-Mast System Test of § 1204.4(e) of this subpart, the current measured by the current monitoring device connected to the mast would be no greater than 5.0 milliamperes rms and no electrical breakdown of the antenna system's insulating material would occur.

§ 1204.4 Electric shock protection tests.

(a) *Safety precautions.* For tests involving high voltage, the following recommended minimum safety precautions should be followed:

(1) At least one test operator and one test observer (preferably one with cardiopulmonary resuscitation (CPR) training) should be present at every test.

(2) The test area (outdoors or indoors) should secure against accidental intrusion by other persons during tests.

(3) Test areas located indoors should be ventilated to avoid buildup of potentially hazardous concentrations of gaseous byproducts which may result from the tests.

(4) Fire extinguishers should be easily accessible in case materials on the test specimen ignite.

(5) "High Voltage Test" warning devices should be activated before start of a test.

(6) Emergency phone numbers should be posted.

(b) *Test conditions.* (1) *Specimens.* All specimens shall be tested as supplied by the manufacturer, following assembly in accordance with the manufacturer's instructions except as provided in paragraph (e)(2) of this section.

(2) *Temperature.* Ambient temperature shall be in the range from 32 °F (0 °C) to 104 °F (40 °C)

(3) *Relative humidity.* Ambient relative humidity shall be in the range of from 10 to 90 percent.

(4) *Voltage.* Voltage, phase to ground, of the power line or test probe shall be 14.5 kilovolts rms, 60 hertz.

(5) *Conditioning.* Prior to testing, all specimens shall be exposed for at least 4 hours to the ambient test area environment.

(c) *Test equipment.* (1) High voltage source capable of delivering at least 15 mA rms at 14.5 kV rms, 60 Hz. The source should have an automatic internal cut-off actuated by a preset current level.

(2) Instrumentation to measure the rms voltage applied to the antenna system.

(3) Current monitoring device to indicate hazardous components of the total rms current flowing to ground through the mast. One configuration of the circuitry for the current monitoring device (shown in Figure 1) consists of three parallel branches as follows. One branch consists of a resistor in series with a true-rms milliammeter with a maximum error of 5% of the reading in the frequency range of 50Hz to 10MHz (the total of the resistor and the internal resistance of the milliammeter is to be 1000 ohms). A parallel branch consists of a 1000 ohm resistor in series with a 0.08 microfarad capacitor. Another parallel branch should consist of a spark gap rated at 50 to 100 volts as a meter protection device. A different current monitoring device may be used if the measured value of the rms current corresponds to that indicated by the configuration described above.

(4) For the Insulating Material Effectiveness Test:

(i) High voltage electrode or test rod consisting of ¼ in. (6.4 mm) diameter aluminum rod.

(ii) Support jig, structure, or hanger made of insulating material which is capable of holding antenna system test specimens electrically isolated from all surrounding structures or ground.

(5) For the Antenna-Mast System Test, a high voltage test facility, as