## K921 (Guidance obtained from NFPA 99 & CMS Form 2786R (survey tool)

- Patient-Care-Related Electrical Equipment (PCREE) is defined in NFPA 99 as: Electrical equipment
  appliance that is intended to be used for diagnostic, therapeutic, or monitoring purposes in a
  patient care vicinity. For inspection purposes, we'll view this as equipment such as: oxygen
  concentrators, nebulizers, pumps, ventilators, electric beds, electric lifts, & other life support
  equipment
- Each facility must develop policies & protocols to identify testing intervals for the medical equipment. The policy should also require a regular review of the manufacturer's manuals and instructions for employees that use the equipment (NFPA 99, 10.5.8). The facility can determine the testing frequency as long as it's reasonable.
- Service manuals, instructions, and procedures provided by the manufacturer include the information listed in *NFPA 99, 2012 edition, 10.5.3.1.1* and are readily available.
- 10.5.2.1.2 All patient care—related electrical equipment used in patient care rooms shall be tested
  in accordance with 10.3.5.4 or 10.3.6 before being put into service for the first time and after any
  repair or modification that might have compromised electrical safety.
  - 10.3.5.4 Touch Leakage Test Procedure. Measurements shall be made using the circuit, as illustrated in Figure 10.3.5.4, with the appliance ground broken in two modes of appliance operation as follows:
  - (1) Power plug connected normally with the appliance on
  - (2) Power plug connected normally with the appliance off (if equipped with an on/off switch)
  - 10.3.5.4.1 If the appliance has fixed redundant grounding (e.g., permanently fastened to the grounding system), the touch leakage current test shall be conducted with the redundant grounding intact.

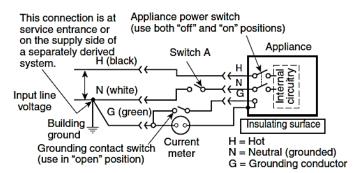


FIGURE 10.3.5.4 Test Circuit for Measuring Touch Leakage Current.

## 10.3.6\* Lead Leakage Current Tests and Limits — Portable Equipment.

- **10.3.6.1** The leakage current between all patient leads connected together and ground shall be measured with the power plug connected normally and the device on.
- **10.3.6.2** An acceptable test configuration shall be as illustrated in Figure 10.3.5.4.
- **10.3.6.3** The leakage current shall not exceed 100  $\mu A$  for ground wire closed and 500  $\mu A$  ac for ground wire open.
- A record of electrical equipment tests, repairs, and modifications is maintained for a period of time to demonstrate compliance in accordance with the facility's policy. (NFPA 99, 10.5.6.3)

<sup>\*</sup> Health care facilities are required to follow NFPA 99. This document is not all inclusive of those requirements.