

FACILITY DEMOGRAPHIC REPORT

Quick Reference Guide: Electrical Equipment



ACUTE CARE HOSPITAL



CRITICAL ACCESS HOSPITAL



AMBULATORY SURGERY CENTER

The essence of your risk-assessment approach to Electrical Equipment should be to identify the impact on patients, providers, and others in the building in a worst-case scenario of system element failure. This Quick Reference Guide provides information to support completing, maintaining, and annually updating the Facility Demographic Report (FDR) required for your Accreditation Commission for Health Care (ACHC) Accreditation.

Risk assessment guides category designation(s) based on the National Fire Protection Association's *NFPA 99 Health Care Facilities Code*, 2012 edition, Chapter 4. This is documented in your Facility Demographic Report and should be used to establish ongoing maintenance plans and emergency plans.

NFPA 99 Health Care Facilities Code, 2012 edition, Chapter 10, describes Electrical Equipment. Chapter 10 covers requirements for items like patient care equipment, electrical cords, grounding equipment, cord strain reliefs, and electrical safety testing. The code details what is commonly called an electrical safety check for patient care-related electrical appliances and equipment, including:

- Visual inspection of the cord, starting at the plug – to make sure the ground is intact.
- Inspecting the cord for cuts or damage from the plug to the cord strain relief at the equipment.
- Inspecting the physical integrity of the equipment case.
- Testing ground wire resistance.
- Testing for leakage current.

Chapter 10 also addresses the use of extension cords and adapters, plus multiple-outlet extensions. This chapter can be difficult to translate into a system using Categories 1-4. However, when approached similarly to Chapter 9 HVAC and Utility Equipment, the task becomes clearer. The chapter includes references to documents and guidelines such as:

- NFPA 70, *National Electrical Code*.
- International Electrotechnical Commission (IEC) 60601-1-2, *Medical Electrical Equipment – Part 1-2; General Requirements for Safety – Collateral Standard: Electromagnetic Compatibility – Requirements and Tests*.
- American National Standards Institute/Association for the Advancement of Medical Instrumentation (ANSI/AAMI) ES 60601-1, *Medical Electrical Equipment*.

Assign categories to the individual electrical equipment that, in aggregate, constitutes the system. The inventory process for Medical Equipment requires identification of those items considered critical equipment (Category 1).

As with the HVAC components, this assessment may lead to the use of an Alternate Equipment Maintenance (AEM) Program for equipment as described in our ACHC Acute Care Hospitals Standard **11.05.01 Medical equipment and systems: Maintenance**.¹ For example:

	Category	Maintenance Strategy
Defibrillator	Category 1	Critical Equipment – Follow manufacturer’s requirements.
Patient Bed	Category 2	Non-Critical Equipment – AEM approved, based on hospital experience and equipment history. Strategy – Annual inspection, electrical safety test, functional test, and repair upon failure.
Oto/Ophthalmoscope	Category 4	Non-Critical Equipment – AEM approved. Battery operated device; no electrical safety needed. Strategy – Repair upon failure.

Note that Standard 11.05.01 does not exclude critical equipment from being included in an AEM Program. It states:

A hospital is expected to identify any equipment in its AEM program which is “critical equipment” for which there is a risk of serious injury or death to a patient or staff person should the equipment fail.

Key Points

- ACHC will no longer expect the organization to identify a category for Electrical Equipment as a single “system” on its FDR.
- The organization must have a medical equipment inventory readily available per Standard 11.05.02 that includes a risk assessment for patient care-related electrical appliances and equipment and readily identifies critical equipment.
- The definition of “critical equipment” mirrors Category 1 as defined in NFPA 99-2012. It is equipment and/or systems for which there is a risk of serious injury or death to a patient or staff person should the equipment fail.
- NFPA 99-2012 Chapter 10 is applicable to healthcare organizations, including the electrical safety inspection and testing process.

¹This standard reference refers to Accreditation Requirements for Acute Care Hospitals. For Critical Access Hospitals (CAHs), the relevant standard is 03.05.01. For Ambulatory Surgery Centers (ASCs), there is no medical equipment maintenance standard, but assessment of electrical system(s) is addressed in **Standard 16.05.10 Health Care Facilities Code**.