

FACILITY DEMOGRAPHIC REPORT

Quick Reference Guide: Gas Equipment



ACUTE CARE HOSPITAL



CRITICAL ACCESS HOSPITAL



AMBULATORY SURGERY CENTER

The essence of your risk-assessment approach to Gas 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 11 describes Gas Equipment. This chapter is likely to be familiar to respiratory therapy and clinical engineering professionals. Chapter 11 includes requirements for items like portable patient care gas equipment, respiratory therapy apparatus, cylinder gas carts and hand trucks, safe handling and storage of gas cylinders, signage, and liquid oxygen transfilling.

Chapter 11 includes references to NFPA and Compressed Gas Association (CGA) documents and guidelines such as:

- CGA V-1, *Standard for Compressed Gas Cylinder Valve Outlet and Inlet Connections* (ANSI B57.1).
- NFPA 54, *National Fuel Gas Code*.
- CGA P-2.5, *Transfilling of High Pressure Gaseous Oxygen to be Used for Respiration*.
- CGA C-7, *Guide to the Preparation of Precautionary Labeling and Marking of Compressed Gas Containers*.
- CGA G-4, *Oxygen*.

The chapter begins with descriptions of cylinder requirements, including those for storage and signage. 11.3 Cylinder and Container Storage Requirements is used as ACHC's reference for **Standard 13.05.10 Medical gas systems and equipment: Maintenance**.¹ It covers storage of cylinders up to 300 cubic feet and between 300 and 3,000 cubic feet, and it includes specific wording for signs on storage rooms and enclosures.

Assessing portable patient-care gas equipment related to Chapter 11 is similar to the approach to Chapter 10 for electrical equipment. The first portion of the chapter addresses anesthesia equipment. This is followed by a section for the apparatus for administering respiratory therapy, which would include ventilators or other patient care equipment supplied from cylinders.

When assessing equipment such as anesthesia equipment and ventilators, industry practice is to consider these items “critical equipment” and high-risk, scoring at a Category 1 and following manufacturer recommendations. For example:

	Category	Maintenance Strategy
Anesthesia Machine	Category 1	Critical Equipment – Follow manufacturer’s requirements. Note: NFPA 99-2012 11.4.1.3 testing requirements must be followed.
Ventilator	Category 1	Critical Equipment – Follow manufacturer’s requirements.

Key Points

- ACHC will no longer expect the organization to identify a category for Gas Equipment as a single “system” on its FDR.
- The organization must have a medical equipment inventory readily available for portable patient-care gas equipment per Standard 11.05.02 that includes a risk assessment for 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 a system for which there is a risk of serious injury or death to a patient or staff person should the equipment fail.
- All of Chapter 11 must be followed, including safe handling and storage of portable gases, language on signs, and liquid oxygen transfilling.

¹This standard reference refers to *Accreditation Requirements for Acute Care Hospitals*. For Critical Access Hospitals (CAHs), the relevant standard is 14.05.01. For Ambulatory Surgery Centers (ASCs), the relevant standard is 16.05.09.