

Twin Cities Healthcare Engineers Association  
United Hospital - Nasseff Building

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March 22, 2018

Presenter: Robert Imholte, President  
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**THE FEDERAL  
SURVEY BOOKLET  
AND NFPA 99**



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NFPA 99- 2012, *Health Care Facilities Code*, adopted effective July 5, 2016



Enforcement date: November 1, 2016

Includes five Tentative Interim Amendments (TIAs)

42 CFR §482.41(c) – Hospitals  
42 CFR §483.70(b) – Nursing Homes

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**NFPA 99-2012 TIAs:**

- TIA 12-2: New Chapter 9 - HVAC
- TIA 12-3: Sec. 6.6.3.1 – Type 3 EES
- TIA 12-4: Operation, management and maintenance of gas/vacuum systems in existing buildings
- TIA 12-5: Sec. 10.2.3.6(5) deleted - SPRPTs
- TIA 12-6: Sec. 11.5.1.1 – Sources of ignition, respiratory therapy

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**NFPA 99(2012), Health Care Facilities Code**

Chapters not adopted:

- Chapter 7 – IT/Communications Systems
- Chapter 8 – Plumbing
- Chapter 12 – Emergency Management
- Chapter 13 – Security Management

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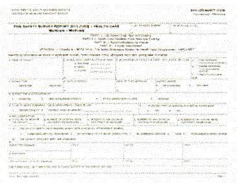
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**THE FEDERAL SURVEY  
BOOKLET (FORM CMS-  
2786) AND NFPA 99**

- NFPA 99 tags found in 900 series of data tags
- Total = 34 K-tags

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**THE GREAT (WELL, SORTA OKAY ANYWAY) NFPA 99 QUIZ!!**

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**K900 – Deals with deficiencies not addressed in any of the other provided K-tags**

Which of the following chapters of NFPA 99 CANNOT be cited under K900?

- Chapter 4 – Fundamentals
- Chapter 8 – Plumbing
- Chapter 9 – Heating, Ventilation, and Air Conditioning
- Chapter 12 – Emergency Management
- Chapter 15 – Features of Fire Protection

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**K901 – Fundamentals – Building System Categories**

Which of the following statements is/are NOT correct?

- Building systems in health care facilities must be designed to meet requirements based on assigned categories
- Categories must be determined by following a defined risk assessment procedure
- The code establishes 5 levels of systems categories
- The risk assessments must be documented

NFPA 99(12), Chapter 4

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**K902 - K910: Gas and Vacuum Piped Systems**

Which of these statements about Category 1 and Category 2 central supply systems is correct? **K905**

- Locations containing central supply systems or cylinders containing only O<sub>2</sub> or medical air must have their doors labeled: **"Medical Gases – NO Smoking or Open Flame"**
- Locations containing positive pressure gases other than O<sub>2</sub> and medical air must have their doors labeled: **"Positive Pressure Gases – NO Smoking or Open Flame – Room May Have Insufficient Oxygen – Open Door and Allow Room to Ventilate Before Entering"**

Fire Safety Resources, LLC      NFPA 99(12), Secs. 5.1.3.1 & 5.2.3.1

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**K911 - K918: Electrical Systems**

Which of the following statements is NOT correct? **K912, K914**

- Receptacles located within patient rooms, bathrooms, playrooms & activity rooms of new and existing pediatric units, other than nurseries, must be listed tamper-resistant or employ a listed tamper-resistant cover
- Hospital-grade receptacles at patient bed locations must be tested annually
- Hospital-grade receptacles at patient bed locations must be tested at intervals defined by documented performance data

Fire Safety Resources, LLC      NFPA 99(12), Secs. 6.3.2.2.6.2(F) & 6.3.4.1

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**K911 - K918: Electrical Systems**

Which of the following statements is supported by the code? **K918**

- Emergency generators must be tested at least once every 24 months for a minimum of 2 continuous hours
- Emergency generators must be tested at least once every 36 months for a minimum of 4 continuous hours
- Emergency generators must be tested at least once every 36 months for a minimum of 3 continuous hours
- Emergency generators must be tested at least once every 48 months for a minimum of 4 continuous hours

Fire Safety Resources, LLC      NFPA 99(12), Sec. 6.4.4.1.1.4; NFPA 110(10), Sec. 8.4.9

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**K919 – K921: Electrical Equipment**

Which of the following is not allowed to be plugged into a UL 1363 listed power strip in a nursing home resident room? **K920**

- a. Television
- b. Electric bed
- c. Stereo radio
- d. Oscillating fan
- e. Personal computer



RELOCATABLE POWER STRIP  
MAX LOAD 15A 125VAC  
CAUTION  
TO REDUCE THE RISK OF ELECTRIC  
SHOCK FOR END-USER USE IN EVERY  
LOCATION ONLY  
ATTENTION: TO KEEP INDUENT GASK  
DISPLACEMENT RISK  
MODEL 01157C

NFPA 99(12), Sec. 10.2.4

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**K922 – K930: Gas Equipment**

Which of the following statements related to storage of portable O<sub>2</sub> ≤300 ft<sup>3</sup> in a smoke compartment is NOT supported by the code? **K923**

- a. Storage allowed to be located in an alcove open to the corridor
- b. Cylinders must be protected from tampering by unauthorized individuals
- c. Cylinders must be kept at least 10' from combustibles

NFPA 99(12), Secs. 11.3.3 & 11.6.2

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**K922 – K930: Gas Equipment**

Which of the following statements related to storage of portable O<sub>2</sub> >3000 ft<sup>3</sup> is NOT supported by the code? **K923**

- a. Storage locations must be enclosed with construction having a minimum 1-hour fire resistance
- b. Where chains are used to secure cylinders from falling, the cylinders must be chained individually
- c. Heating of storage locations must be by indirect means
- d. Light switches in storage locations must be located at least 5 ft above the finished floor

NFPA 99(12), Secs. 11.3.1 & 5.1.3.3.2

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**K922 – K930: Gas Equipment**

Nonmedical appliances that have hot surfaces or sparking mechanisms are not allowed within the site of intentional expulsion. The "site of intentional expulsion" includes: **K925**

- a. All points within **15** ft of a nasal cannula
- b. All points within **5** ft of a nasal cannula
- c. All points within **3** ft of a nasal cannula
- d. All points within **1** ft of a nasal cannula



NFPA 99(12), Secs. 11.5.1.1.6 & 3.3.168; TIA 12-6

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**K922 – K930: Gas Equipment**

When a nasal cannula and its associated tubing are delivering O<sub>2</sub> outside of a patient care room, no sources of open flame, such as candles, are permitted within \_\_\_ ft. **K925**

- a. Within **15** ft
- b. Within **5** ft
- c. Within **3** ft
- d. Within **1** ft



NFPA 99(12), Secs. 11.5.1.1.2 & 3.3.13; TIA 12-6

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**K922 – K930: Gas Equipment**

**K926**

Personnel concerned with the application and maintenance of medical gases and others who handle medical gases and the cylinders that contain the medical gases must be trained on the risks associated with their handling and use



NFPA 99(12), Sec. 11.5.2.1

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**K926: Gas Equipment – Qualifications and Training of Personnel**

Which of the following statements is/are NOT supported by the code?

- a. Continuing education programs must include periodic review of safety guidelines for medical gases and their cylinders
- b. Equipment must be serviced only by personnel trained in the maintenance and operation of the equipment
- c. Annual education programs must be provided for staff

NFPA 99(12), Sec. 11.5.2.1

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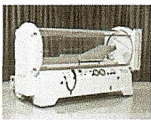
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**K931 – Hyperbaric Facilities**

References the construction, equipment, administration and maintenance requirements of NFPA 99(12), Chapter 14

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**K932 – K933: Features of Fire Protection**

Which of the following is NOT supported by the code? **K933**

- a. Emergency procedures must be established for controlling chemical spills in operating rooms
- b. Operating room incidents must be reviewed quarterly
- c. Operating room procedures must be reviewed semi-annually
- d. A preoperative “time out” is required prior to surgical procedures using flammable liquid germicides/antiseptics

NFPA 99(12), Sec. 15.13

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