HEALTH CARE
AUTHORITY

THE LIFE SAFETY CODE SURVEY

RHONDA DELMAIN, DISTRICT OPERATIONS BUREAU CHIEF
NFPA CERTIFIED FIRE INSPECTOR

INVESTING FOR TOMORROW, DELIVERING TODAY.

BEFORE WE START...

On behalf of all colleagues at the Health Care Authority, we humbly acknowledge we are on the unceded ancestral lands of the original peoples of the Pueblo, Apache, and Diné past, present, and future.

With gratitude we pay our respects to the land, the people and the communities that contribute to what today is known as the State of New Mexico.

A cloudy morning looking over Santa Cruz Lake
photo by Jessica Gomez

MISSION

We ensure New Mexicans attain their highest level of health by providing whole-person, cost-effective, accessible, and high-quality health care and safety-net services.

HEALTH CARE AUTHORITY

VISION

Every New Mexican has access to affordable health care coverage through a coordinated and seamless health care system.

GOALS

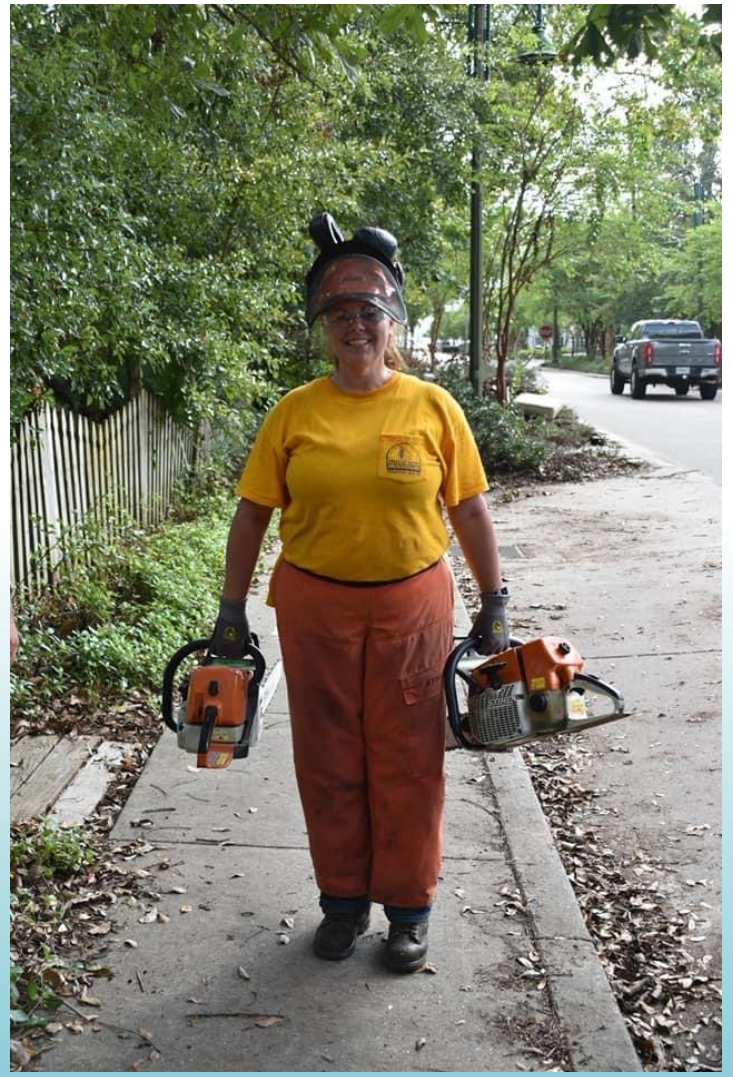
LEVERAGE purchasing power and partnerships to create innovative policies and models of comprehensive health care coverage that improve the health and well-being of New Mexicans and the workforce.

BUILD the best team in state government by supporting employees' continuous growth and wellness.

ACHIEVE health equity by addressing poverty, discrimination, and lack of resources, building a New Mexico where everyone thrives.

IMPLEMENT innovative technology and data-driven decision-making to provide unparalleled, convenient access to services and information.

INTRODUCTIONS



- I am a New Mexico transplant. I am a Maryland native, and I die hard Washington Commanders fan.
- My degrees are in Education, Psychology, and Business. I was a teacher and a play therapist before I moved into my regulatory career.

I began my career as a regulator with the State of Missouri utilizing State laws and regulations.

I moved into regulating long term care facilities and became SMQT certified.

I started conducting Life Safety Code surveys, and I became a NFPA Certified Fire Inspector. I have maintained my CFI certification, and I am a member of the Pro Board.

I learned about New Mexico through my volunteer work as a National Disaster Response Volunteer. I am certified in Incident Command, Communications, Flood Recovery, and Fire Recovery, and I worked wildfire recovery in Ruidoso, NM in Spring of 2022.

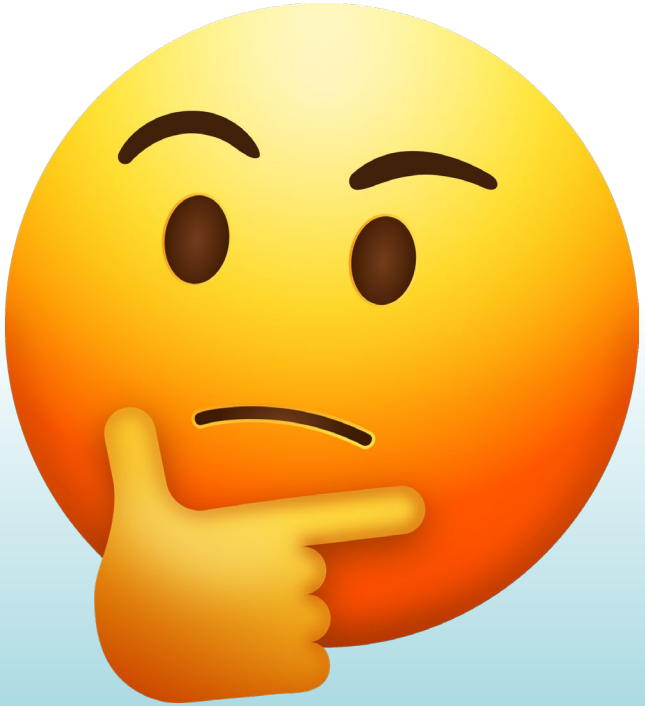
In August 2023, I moved to New Mexico and began my career with the District Operations Bureau. I have worked on the QA Team and the District 1 Team, and I became the Bureau Chief in August of 2025.

What is Life Safety Code?

- The Life Safety Code (LSC) is NFPA 101. It is a set of regulations developed by the National Fire Protection Association (NFPA).
- It provides the minimum requirements for the design, construction, operation, and maintenance of buildings to protect occupants from fire, smoke, and other hazards.
- It covers a wide variety of occupancy types, to include health care facilities, ambulatory care, residential board and care, and more.
- The Advance Healthcare Surveyors are also known as Life Safety Code surveyors, because their surveys are based on NFPA 101. They also utilize NFPA 99, Health Care Facilities Code.
- NFPA 101 and NFPA 99 form the groundwork of all LSC inspections.
- These two NFPA manuals can refer the LSC surveyor to another 75+ NFPA manuals, which cover topics such as backup emergency power, electrical code, sprinkler installations, fire alarm inspections, and more.

HEALTH CARE AUTHORITY

IS THAT A NEW REQUIREMENT?



- The Authority Having Jurisdiction (AHJ) is a term that is frequently used in the NFPA codes. The AHJ can be Federal (CMS), State (NM Fire Marshal), or local entities (City Fire Dept, Building Inspector, etc.).
- In order for a Code to be enforced, the AHJ must adopt it. They can adopt an established Code (NFPA, IBC, etc.) or they can write their own code.
- The edition the AHJ adopts is the version that is enforceable until they adopt a newer edition or a different Code.
- CMS adopted the NFPA Codes, and the last time they adopted them was on May 4, 2016. The effective date for this adoption was July 6, 2016. Surveying for compliance with this Code began on November 1, 2016 (See S&C: 16-29-LSC)
- Therefore, the LSC surveyors utilize the 2012 editions of NFPA 101 and NFPA 99. For other NFPA codes, the LSC surveyors cannot utilize any editions after 2012.
- NFPA codes are reviewed and updated every three to five years.

Quick Code Review: The Purpose and Goal

NFPA 101, 2012 edition:

1.2* Purpose. The purpose of this *Code* is to provide minimum requirements, with due regard to function, for the design, operation, and maintenance of buildings and structures for safety to life from fire. Its provisions will also aid life safety in similar emergencies.

4.1* Goals.
4.1.1* Fire. A goal of this *Code* is to provide an environment for the occupants that is reasonably safe from fire by the following means: (1)*Protection of occupants not intimate with the initial fire development; (2) Improvement of the survivability of occupants intimate with the initial fire development.

4.2 Objectives.
4.2.1 Occupant Protection. A structure shall be designed, constructed, and maintained to protect occupants who are not intimate with the initial fire development for the time needed to evacuate, relocate, or defend in place.

4.5 Fundamental Requirements.
4.5.1 Multiple Safeguards. The design of every building or structure intended for human occupancy shall be such that reliance for safety to life does not depend solely on any single safeguard. An additional safeguard(s) shall be provided for life safety in case any single safeguard is ineffective due to inappropriate human actions or system failure.
4.5.2 Appropriateness of Safeguards. Every building or structure shall be provided with means of egress and other fire and life safety safeguards of the kinds, numbers, locations, and capacities appropriate to the individual building or structure, with due regard to the following: (1) Character of the occupancy, including fire load; (2) Capabilities of the occupants; (3) Number of persons exposed; (4) Fire protection available; (5) Capabilities of response personnel; (6) Height and construction type of the building or structure; (7) Other factors necessary to provide occupants with a reasonable degree of safety.

Quick Code Review: The Authority Having Jurisdiction

NFPA 101, 2012 edition

3.2 NFPA Official Definitions.
3.2.1* Approved. Acceptable to the Authority Having Jurisdiction.
3.2.2* Authority Having Jurisdiction (AHJ). An organization, office, or individual responsible for enforcing the requirements of a code or standard, or for approving equipment, materials, an installation, or a procedure.
3.2.6 Shall. Indicates a mandatory requirement.
3.2.7 Should. Indicates a recommendation or that which is advised but not required.

Chapter 1: Administration
1.6 Enforcement. This Code shall be administered and enforced by the Authority Having Jurisdiction designated by the governing authority.

Chapter 4: General
4.6 General Requirements.
4.6.1 Authority Having Jurisdiction.
4.6.1.1 The Authority Having Jurisdiction shall determine whether the provisions of this Code are met.
4.6.1.2 Any requirements that are essential for the safety of building occupants and that are not specifically provided for by this Code shall be determined by the Authority Having Jurisdiction.
4.6.1.3 Where it is evident that a reasonable degree of safety is provided, any requirement shall be permitted to be modified if, in the judgment of the Authority Having Jurisdiction, its application would be hazardous under normal occupancy conditions.

Quick Code Review: The Facility

NFPA 101, 2012 edition

4.6.12 Maintenance, Inspection, and Testing.

4.6.12.1 Whenever or wherever any device, equipment, system, condition, arrangement, level of protection, fire-resistive construction, or any other feature is required for compliance with the provisions of this Code, such device, equipment, system, condition, arrangement, level of protection, fire-resistive construction, or other feature shall thereafter be **continuously maintained**. Maintenance shall be provided in accordance with applicable NFPA requirements or requirements developed as part of a performance-based design, or as directed by the Authority Having Jurisdiction.

4.6.12.4 Any device, equipment, system, condition, arrangement, level of protection, fire-resistive construction, or any other feature requiring periodic testing, inspection, or operation to ensure its maintenance shall be **tested, inspected, or operated** as specified elsewhere in this Code or as directed by Authority Having Jurisdiction.

4.6.12.5 Maintenance, inspection, and testing shall be performed under the supervision of **a responsible person** who shall ensure that testing, inspection, and maintenance are made at specified intervals in accordance with applicable NFPA standards or as directed by the Authority Having Jurisdiction.

18/19.1.1.3 Total Concept.

18/19.1.1.3.1 All health care facilities shall be **designed, constructed, maintained, and operated to minimize the possibility of a fire emergency** requiring the evacuation of occupants.

18/19.1.1.3.2 Because the safety of health care occupants cannot be ensured adequately by dependence on evacuation of the building, their protection from fire shall be provided by appropriate arrangement of facilities; **adequate, trained staff; and development of operating and maintenance procedures** composed of the following: (1) Design, construction, and compartmentation; (2) Provision for detection, alarm, and extinguishment; (3) Fire prevention procedures and planning, training, and drilling programs for the isolation of fire, transfer of occupants to areas of refuge, or evacuation of the building

TERMINOLOGY: DATE

For all NFPA standards, when the term “date” appears —particularly in title pages, adoption notices, or style guidelines—it consistently expects the complete date. This means the month, day, and year.

The term “date” is not defined in Chapter 3 of any standard; however, NFPA’s own guidelines on document style specify the level of specificity for clarity and consistency.

Examples:

- NFPA Title Page and Formal Notices
According to the NFPA Manual of Style for Technical Committee Documents, the title page must include multiple types of dates with full specificity: Edition Date, Date of Action by Association, Date of Issue by the Standards Council, and the Effective Date.

- Style Manual Usage
The NEC® Style Manual, used by NFPA, opens with a section labeled “Preparation and Date of Adoption”, citing exact dates for adoption and amendments.

Each of these explicitly demands the **full date**—**month, day, and year**—used to chronicle the documents’ development and enforcement milestones. This reflects NFPA’s consistent practice of providing complete calendar dates for any formal reference or official record.

TERMINOLOGY: OCCUPANT

CMS does not provide a specific regulatory definition for the term “occupant” in its technical terms, guidance, or surveyor manuals (e.g., Appendix PP, State Operations Manual, QSO, 42 CFR 483.5).

CMS uses terms like “resident”, “client”, or “patient”, each with specific definitions depending on the care setting (e.g., nursing homes: residents; ICF/IID: clients).

NFPA does not define the term “occupant” in Chapter 3 of any NFPA standard, but it uses the term occupant throughout the Code books.

- NFPA standards use the words like “resident”, “patient”, “staff”, and “occupants” to differentiate to whom the specific codes apply.

When words are not defined by CMS or by NFPA, then we refer to the Miriam Webster Dictionary definition.

According to the MWD, an occupant is:

- One who occupies a particular place;
- A person who is using or living in a particular building, apartment, or room;
- A person who is in a room, vehicle, etc., at a particular time.

“Occupant” is a general term that is synonymous with anyone within the facility at any given time.

AI Assistants

AI assistants know what they have trained on, what they have access to, and what guidelines you give them:

- Access to NFPA codes, the SOM, QSOs, and whatever is on the else is on the internet, which may or may not be accurate.
- You have to give them guidelines, such as letting them know which Code you are using (NFPA, not IBC/IFC) and what edition (2012 or earlier, not current editions.)
- You have to tell them what type of facility you are, what your capacity is, what type of construction your facility is, if you are under chapter 18 or chapter 19.

What AI assistants do not have access to:

- Guidance and trainings from CMS to the States; (we meet with them on a bi-weekly basis)
- Access to our emails with CMS (we can ask questions anytime and they will provide guidance and feedback)
- Results of our resource surveys or our look back surveys (these provide us with additional feedback regarding our cites, processes, and anything we may have missed)
- Access to our enforcement notes

AI assistants will tell you to take precautions when utilizing them:

- For regulations, codes, safety standards, and legal requirements, always confirm details directly from the authoritative source.
- AI can make mistakes or sound confident about incorrect information.
- Do not use AI to replace professional judgment.
- A1 is a starting point, not a final word.
- AI assistants are powerful and useful, but they work best when paired with human judgment and critical thinking.

HEALTH CARE AUTHORITY

IMPORTANT NOTE

The Codes included in this presentation are not all inclusive.

The Codes included in this presentation are for the most frequently cited deficiencies that we have seen during our surveys in the last 12-18 months.

Applicable Codes are dependent on your facility type, construction type, and many other things.

Please refer to the NFPA code books for your particular situation.

OBJECTIVES

DISCUSS LSC CODES AND REGULATIONS

TAKE A CLOSER LOOK AT FREQUENTLY CITED DEFICIENCIES.

PROVIDE A DIFFERENT PERSPECTIVE OF THE LSC TOUR.

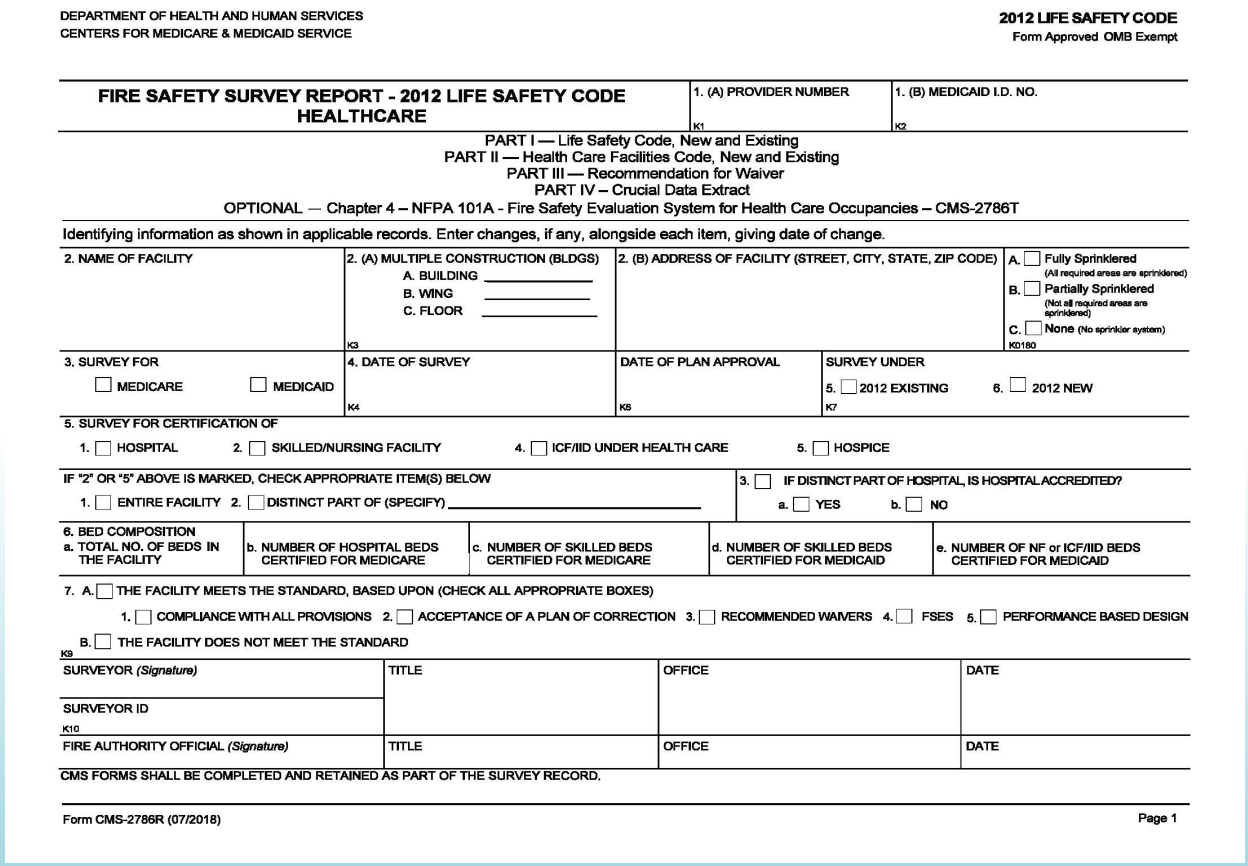
REVIEW OF THE MAJOR LSC SYSTEMS.

The Offsite Preparation

- We look at the building floor plan, all levels, and the campus layout
- Look at previous Statement of Deficiencies and inspection records (fire alarm, sprinkler, generator, etc.)
- Gather our documents: 2786R or V (depending on facility type) and record review forms
- The things we want to know before we get to your facility: How many smoke zones, type of construction (original building and any additions), occupancy types, sprinkler systems (how many, what type, acceptance date), generator (what type and what is it for), etc.

THE CMS 2786

CMS 2786R – Long Term Care Facilities, 50 pages



DEPARTMENT OF HEALTH AND HUMAN SERVICES
CENTERS FOR MEDICARE & MEDICAID SERVICE

2012 LIFE SAFETY CODE
Form Approved OMB Exempt

FIRE SAFETY SURVEY REPORT - 2012 LIFE SAFETY CODE HEALTHCARE

1. (A) PROVIDER NUMBER K1
1. (B) MEDICAID I.D. NO. K2

PART I — Life Safety Code, New and Existing
PART II — Health Care Facilities Code, New and Existing
PART III — Recommendation for Waiver
PART IV – Crucial Data Extract
OPTIONAL — Chapter 4 – NFPA 101A - Fire Safety Evaluation System for Health Care Occupancies – CMS-2786T

Identifying information as shown in applicable records. Enter changes, if any, alongside each item, giving date of change.

2. NAME OF FACILITY
2. (A) MULTIPLE CONSTRUCTION (BLDGS) A. BUILDING ____ B. WING ____ C. FLOOR ____ K3
2. (B) ADDRESS OF FACILITY (STREET, CITY, STATE, ZIP CODE)
A. ☐ Fully Sprinklered (All required areas are sprinklered)
B. ☐ Partially Sprinklered (Not all required areas are sprinklered)
C. ☐ None (No sprinkler system) K0180

3. SURVEY FOR ☐ MEDICARE ☐ MEDICAID
4. DATE OF SURVEY K4
DATE OF PLAN APPROVAL K8
SURVEY UNDER 5. ☐ 2012 EXISTING 6. ☐ 2012 NEW K7

5. SURVEY FOR CERTIFICATION OF
1. ☐ HOSPITAL 2. ☐ SKILLED/NURSING FACILITY 4. ☐ ICF/IID UNDER HEALTH CARE 5. ☐ HOSPICE

IF "2" OR "5" ABOVE IS MARKED, CHECK APPROPRIATE ITEM(S) BELOW
1. ☐ ENTIRE FACILITY 2. ☐ DISTINCT PART OF (SPECIFY) ____
3. ☐ IF DISTINCT PART OF HOSPITAL, IS HOSPITAL ACCREDITED?
a. ☐ YES b. ☐ NO

6. BED COMPOSITION

a. TOTAL NO. OF BEDS IN THE FACILITY	b. NUMBER OF HOSPITAL BEDS CERTIFIED FOR MEDICARE	c. NUMBER OF SKILLED BEDS CERTIFIED FOR MEDICARE	d. NUMBER OF SKILLED BEDS CERTIFIED FOR MEDICAID	e. NUMBER OF NF or ICF/IID BEDS CERTIFIED FOR MEDICAID

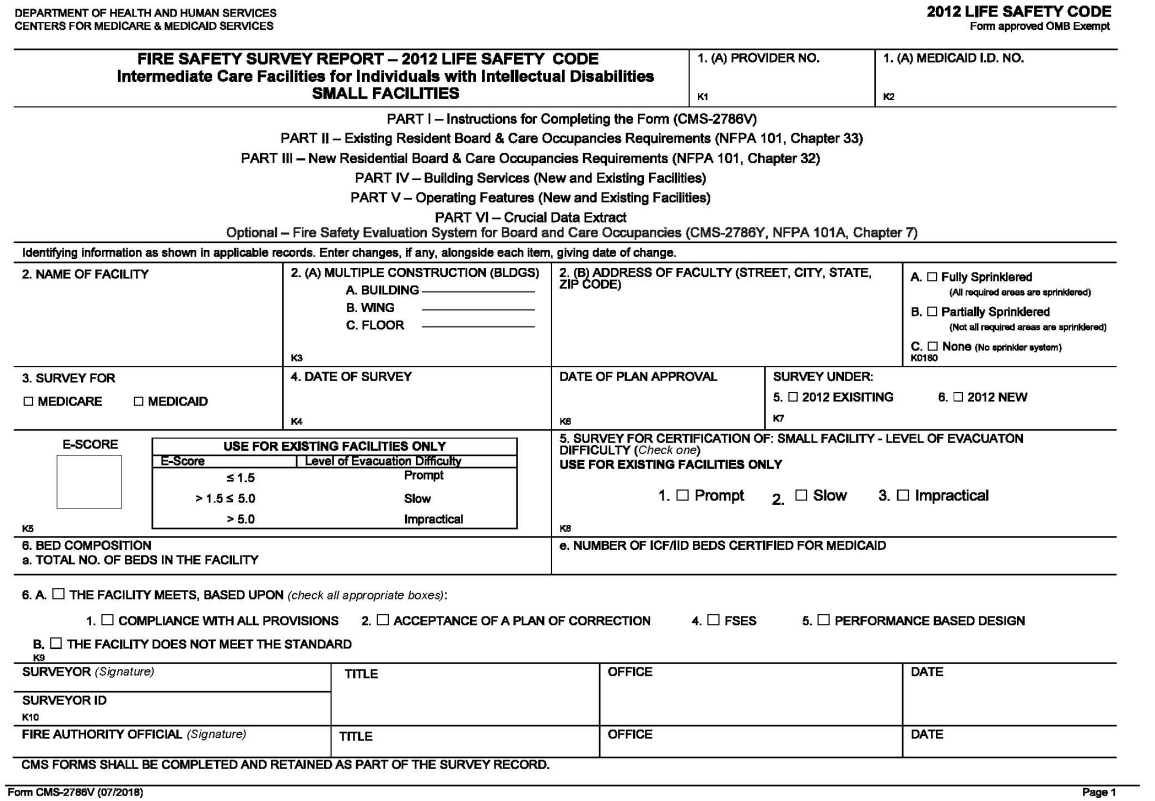
7. A. ☐ THE FACILITY MEETS THE STANDARD, BASED UPON (CHECK ALL APPROPRIATE BOXES)
1. ☐ COMPLIANCE WITH ALL PROVISIONS 2. ☐ ACCEPTANCE OF A PLAN OF CORRECTION 3. ☐ RECOMMENDED WAIVERS 4. ☐ FSES 5. ☐ PERFORMANCE BASED DESIGN
B. ☐ THE FACILITY DOES NOT MEET THE STANDARD
K9

SURVEYOR (Signature)	TITLE	OFFICE	DATE
SURVEYOR ID K10			
FIRE AUTHORITY OFFICIAL (Signature)	TITLE	OFFICE	DATE

CMS FORMS SHALL BE COMPLETED AND RETAINED AS PART OF THE SURVEY RECORD.

Form CMS-2786R (07/2018) Page 1

CMS 2786V – Intermediate Care Facilities, 41 pages



DEPARTMENT OF HEALTH AND HUMAN SERVICES
CENTERS FOR MEDICARE & MEDICAID SERVICES

2012 LIFE SAFETY CODE
Form approved OMB Exempt

FIRE SAFETY SURVEY REPORT – 2012 LIFE SAFETY CODE
Intermediate Care Facilities for Individuals with Intellectual Disabilities SMALL FACILITIES

1. (A) PROVIDER NO. K1
1. (A) MEDICAID I.D. NO. K2

PART I – Instructions for Completing the Form (CMS-2786V)
PART II – Existing Resident Board & Care Occupancies Requirements (NFPA 101, Chapter 33)
PART III – New Residential Board & Care Occupancies Requirements (NFPA 101, Chapter 32)
PART IV – Building Services (New and Existing Facilities)
PART V – Operating Features (New and Existing Facilities)
PART VI – Crucial Data Extract
Optional – Fire Safety Evaluation System for Board and Care Occupancies (CMS-2786Y, NFPA 101A, Chapter 7)

Identifying information as shown in applicable records. Enter changes, if any, alongside each item, giving date of change.

2. NAME OF FACILITY
2. (A) MULTIPLE CONSTRUCTION (BLDGS) A. BUILDING ____ B. WING ____ C. FLOOR ____ K3
2. (B) ADDRESS OF FACULTY (STREET, CITY, STATE, ZIP CODE)
A. ☐ Fully Sprinklered (All required areas are sprinklered)
B. ☐ Partially Sprinklered (Not all required areas are sprinklered)
C. ☐ None (No sprinkler system) K0180

3. SURVEY FOR ☐ MEDICARE ☐ MEDICAID
4. DATE OF SURVEY K4
DATE OF PLAN APPROVAL K8
SURVEY UNDER: 5. ☐ 2012 EXISITING 6. ☐ 2012 NEW K7

E-SCORE K5

USE FOR EXISTING FACILITIES ONLY	
E-Score	Level of Evacuation Difficulty
≤ 1.5	Prompt
> 1.5 ≤ 5.0	Slow
> 5.0	Impractical

5. SURVEY FOR CERTIFICATION OF: SMALL FACILITY - LEVEL OF EVACUATON DIFFICULTY (*Check one*)
USE FOR EXISTING FACILITIES ONLY
1. ☐ Prompt 2. ☐ Slow 3. ☐ Impractical K8

6. BED COMPOSITION
a. TOTAL NO. OF BEDS IN THE FACILITY
e. NUMBER OF ICF/IID BEDS CERTIFIED FOR MEDICAID

6. A. ☐ THE FACILITY MEETS, BASED UPON (*check all appropriate boxes*):
1. ☐ COMPLIANCE WITH ALL PROVISIONS 2. ☐ ACCEPTANCE OF A PLAN OF CORRECTION 4. ☐ FSES 5. ☐ PERFORMANCE BASED DESIGN
B. ☐ THE FACILITY DOES NOT MEET THE STANDARD
K9

SURVEYOR (Signature)	TITLE	OFFICE	DATE
SURVEYOR ID K10			
FIRE AUTHORITY OFFICIAL (Signature)	TITLE	OFFICE	DATE

CMS FORMS SHALL BE COMPLETED AND RETAINED AS PART OF THE SURVEY RECORD.

Form CMS-2786V (07/2018) Page 1

This form must be completed at each recertification and retained as part of the survey record.

THE CMS 2786

The form can be downloaded from the CMS Website.

This form breaks the survey down into two parts: NPFA 101 and NFPA 99.

It breaks Part 1, NFPA 101, down into 6 sections

- General Requirements: Repair, renovations, modifications, and reconstruction; occupancies
- Means of Egress: Egress, doors, exits, emergency lighting, exit signs, etc.
- Protection: Hazardous areas, cooking facilities, fire alarms, sprinklers, portable fire extinguishers, smoke barriers, impairments to fire alarm and sprinkler systems (fire watch) etc.
- Special Provisions: High rise buildings
- Reserved section – Nothing is in this section for now.
- Operating features: Evacuation plans, fire drills, smoking, furniture and decorations, doors inspections, space heaters, construction and improvement operations, etc.

Some parts of the form apply to both new and existing facilities, and other parts of the form are divided between new and existing facilities.

- Plan approval dates on or after July 5, 2016 is “New, Chapter 18”; Before July 5, 206 is “Existing, Chapter 19”
- Major rehabilitation (greater than 50% of the building), adding new construction/additions, CHOW

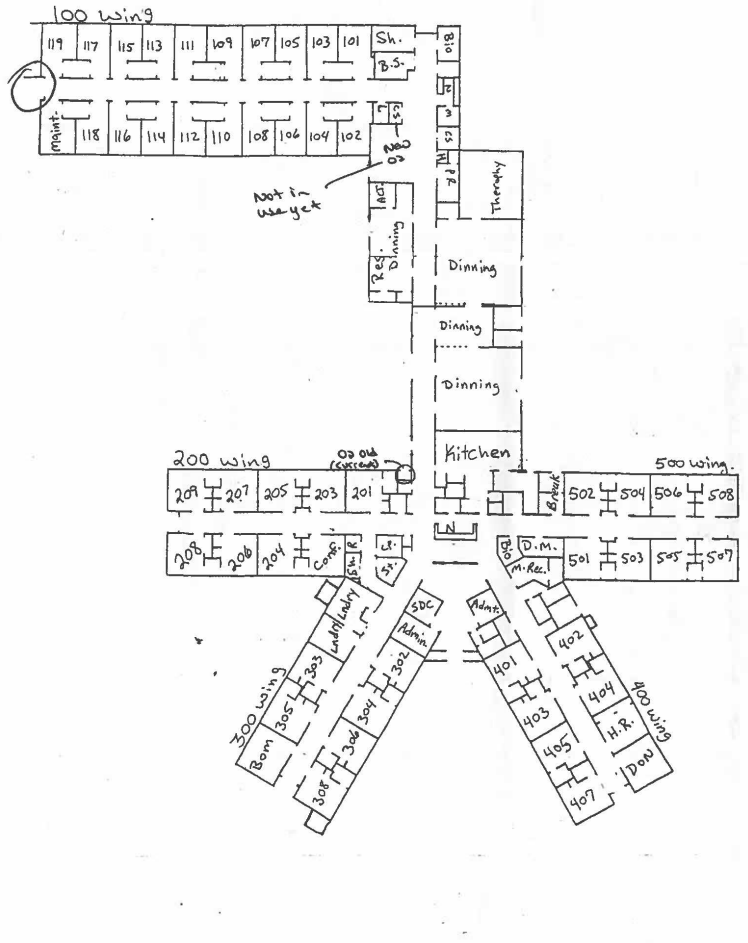
HEALTH CARE AUTHORITY

PLEASE PROVIDE THE FOLLOWING INFORMATION FOR THE LIFE SAFETY CODE SURVEYOR(S):

- Floor plan diagram for all buildings, floors, and spaces, to include ancillary spaces.
- Annual Fire Alarm Inspection
- Semi-Annual Fire Alarm System Inspection
- Last Smoke Detector Sensitivity test
- Annual Sprinkler System Inspection (including fire pump and water storage tank inspection testing records, if applicable)
- Five-year Sprinkler System Internal Pipe Inspection (including system gauge replacement/calibration records and check valve testing records)
- Weekly, Monthly, and Quarterly Sprinkler System Inspections
- Annual Backflow Testing Records
- Sprinkler Head Testing Records
- Weekly, Monthly, Quarterly Fire Pump and Water Storage Tank Inspection Records (if applicable)
- Annual Elevator Inspection (if applicable)
- Boiler Certifications (if applicable)
- Last Two Range Hood Inspections (suppression system)
- Range Hood Cleaning Records
- Annual Kitchen Equipment Inspections
- Monthly Owner Kitchen Equipment Inspection
- Monthly and Annual Exit Signage Inspections
- Monthly and Annual Emergency Lighting Testing Records
- Fire Drill Records for the past 12 months
- Main and Circuit Breaker Inspections
- Annual Receptacle Assessment
- Weekly, Monthly, Annual, and 3-year Generator Inspections/Testing Records (including load bank tests, wet service records, fuel testing, and transfer switch inspection and fuel testing)
- Portable Fire Extinguisher Inspections
- Propane Tank Inspections (if applicable)
- Annual Door Inspections (smoke/fire-rated, egress, and non-rated corridor)
- Initial and Annual Medical Gas Training (syllabus, sign-in sheets)
- Emergency Preparedness Policies and Procedures
- Initial and Annual Emergency Preparedness Training (syllabus, sign-in sheets)
- Emergency Preparedness Community and Facility Based Training
- Fire Watch Policy
- Last Fire Watch Documentation
- All staff sheet with name, job title, and date of hire
- Other documents to have on hand for review: Sprinkler system installation records (birth certificate); building blueprints; LSC policies and procedures.

Note: Copies will be requested. Please do not use staples in the copies.

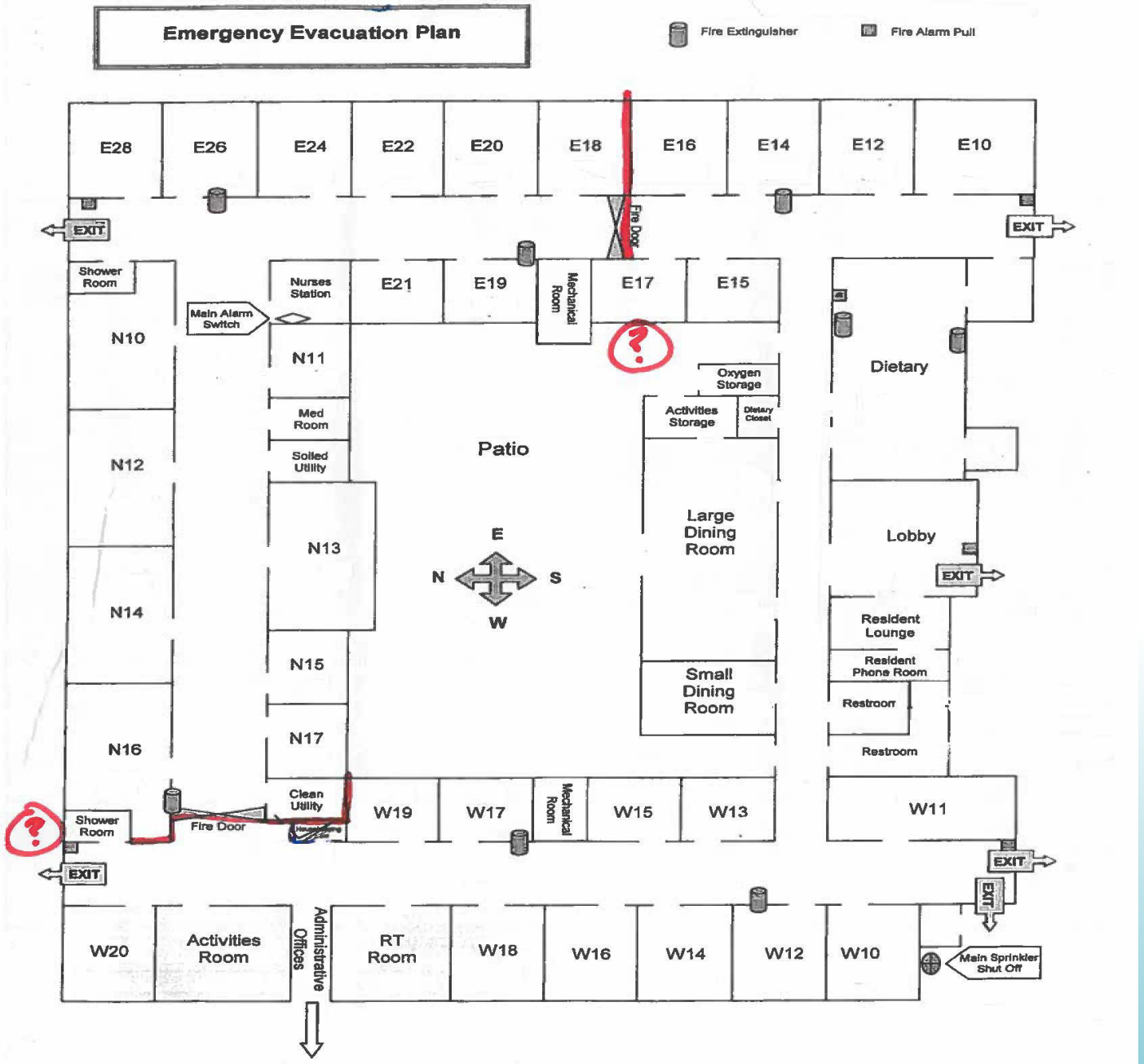
HEALTH CARE AUTHORITY



SMOKE ZONES

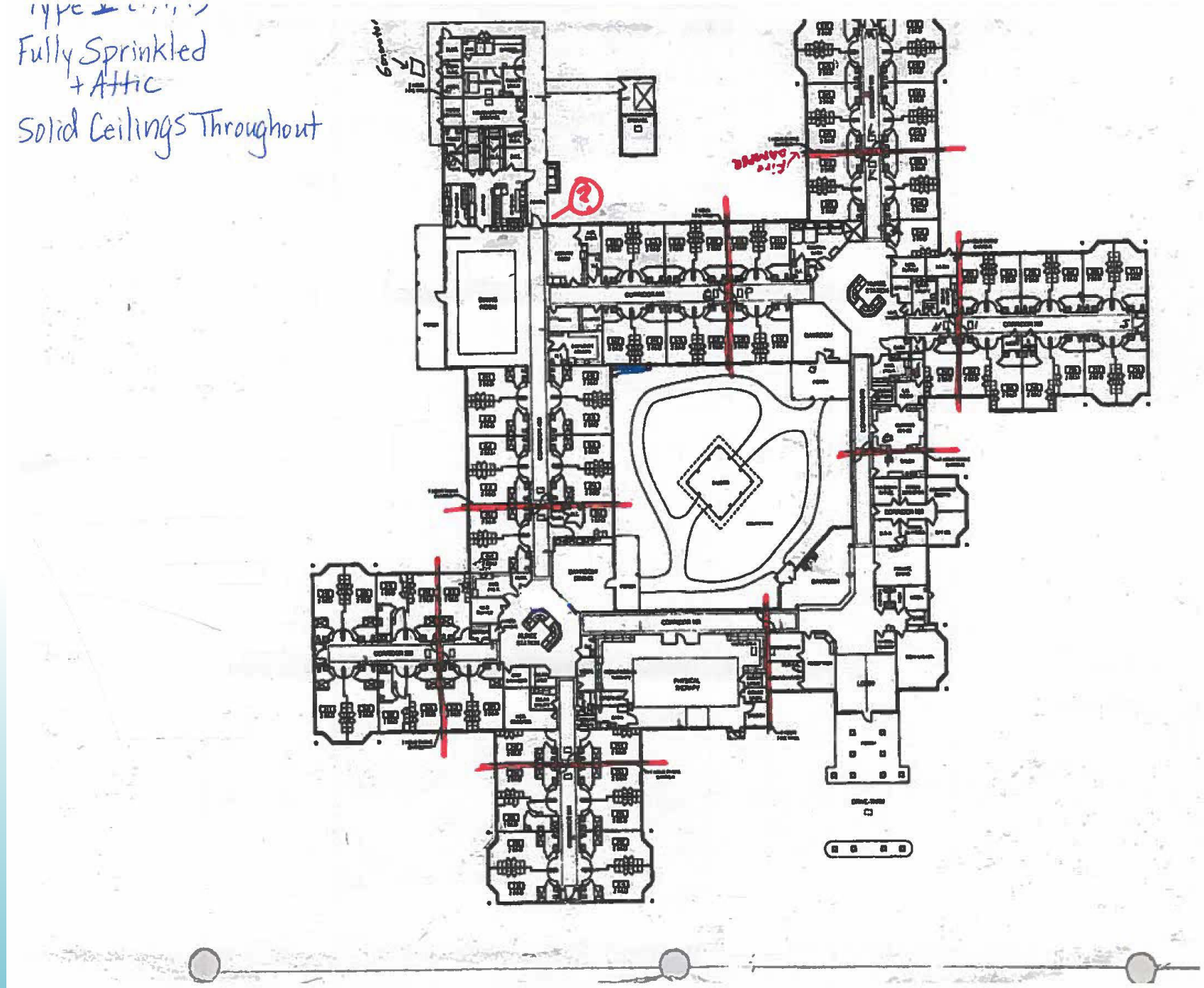
HEALTH CARE AUTHORITY

FLOOR PLAN



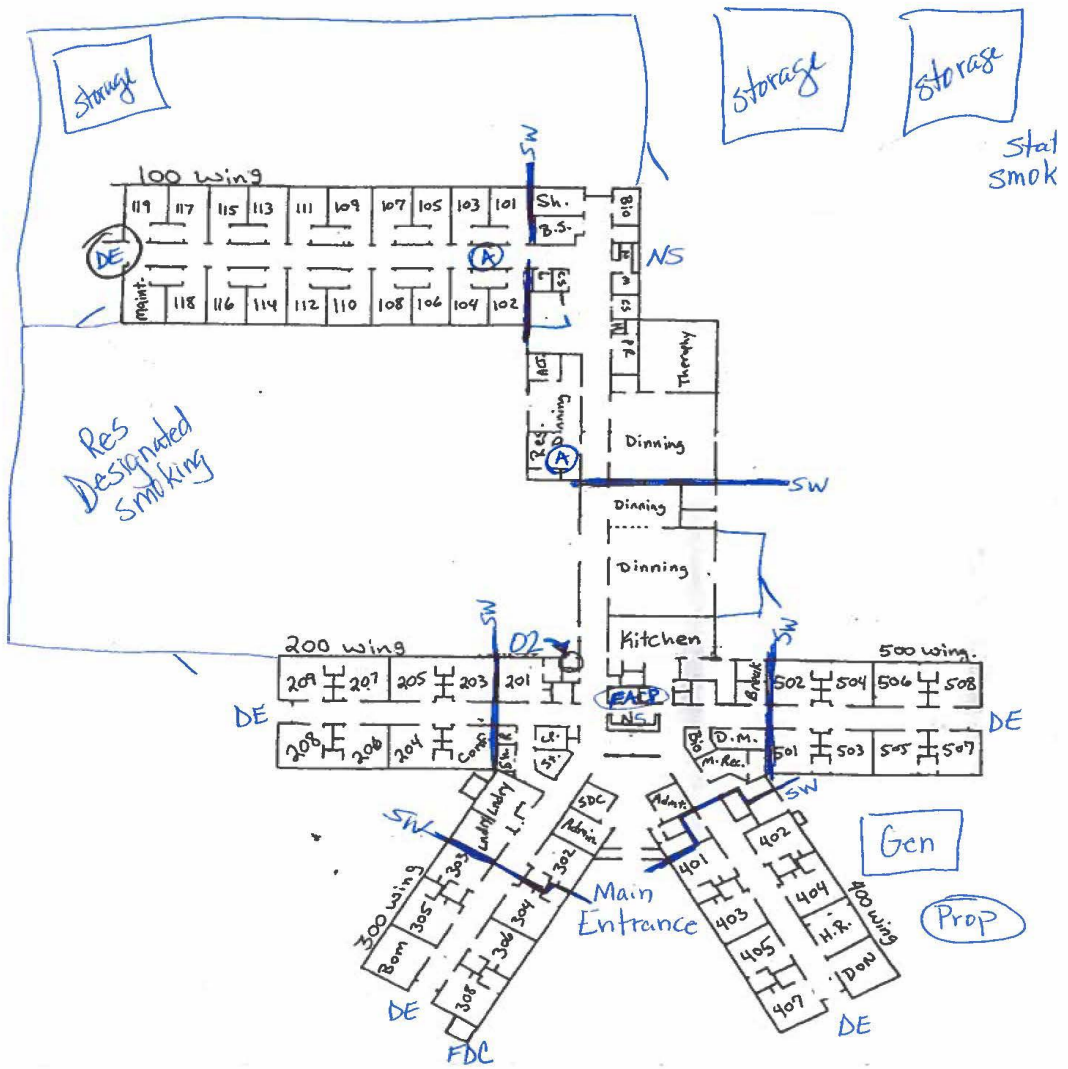
HEALTH CARE AUTHORITY

FLOOR PLAN



HEALTH CARE AUTHORITY

FLOOR PLAN



HEALTH CARE AUTHORITY

SMOKE BARRIER WALLS & DOORS

SMOKE BARRIERS

3.3.31.2* Smoke Barrier. A continuous membrane, or a membrane with discontinuities created by protected openings, where such membrane is designed and constructed to restrict the movement of smoke.

At least two smoke zones per facility.

- Existing: At least two smoke compartments on every sleeping floor with a 30 or more patient bed capacity. NFPA 101, 19.3.7.1
- New: At least two smoke compartments on every floor used by inpatients for sleeping or treatment, **and** on every floor with an occupant load of 50 or more persons, regardless of use. NFPA 101, 18.3.7.1 (1-2)

Smoke zone does not measure any greater than 22,500 sq ft. NFPA 101, 18.3.7.1 (3), 19.3.7.1 (1)

No more than 200’ from furthest point to the smoke barrier wall and doors. NFPA 101, 18.3.7.1 (4); 19.3.7.1

Extend from outside wall to outside wall, floor to roof deck. NFPA 101, 8.3.1.2, 8.5.2

Space shall be provided on each side of smoke barriers to adequately accommodate the total number of occupants in adjoining compartments. NFPA 101, 18.3.7.5

SMOKE BARRIERS AND DOORS

Constructed to a ½ hour fire resistance rating (existing)/1 hour fire resistance rating (new). NFPA 101, 18/19.3.7.3, 8.5.

Smoke dampers are not required in duct penetrations of fully ducted HVAC systems. NFPA 101, 18.3.7.3, 8.5.5

Penetrations in smoke barrier walls should be sealed with a material equivalent to the barrier wall. NFPA 101, 8.5.

Doors in smoke barriers are 1¾-inch thick solid bonded wood-core doors or of construction that resists fire for 20 minutes. NFPA 101, 18.3.7.6, 19.3.7.6

Existing: Doors are self-closing or automatic-closing. Doors are not required to swing in the direction of egress travel. Positive latching is not required. NFPA 101, 19.3.7.8, 8.5.4.4
New: Doors are self-closing and must have rabbets, bevels, or astragals at the meeting edge. Swinging doors shall be arranged so that each door swings in an opposite direction. Positive latching is not required. NFPA 101, 18.3.7.8, 8.5.4.4.6

SMOKE BARRIER DOORS

The doors shall close the opening, leaving only the minimum clearance necessary for proper operation. NFPA 101, 8.5.4.1

The clearance under the bottom of the door shall be a maximum of ¾”. NFPA 101, 18.3.7.6 (6), 8.5.4.1

The doors cannot have grilles or louvers. NFPA 101, 8.5.4.1

Doors can have protective plates. NFPA 101, 18.7.6 (1), 19.3.7.6.1

Doors can have vision panels. NFPA 101, 18.3.7.9-10, 19.3.7.6.2

Minimum clear width for swinging doors: 32” (existing), 41 ½” (new) NFPA 101, 18.3.7.6 (4-5), 19.3.7.9

Center mullions are not allowed (new). NFPA 101, 18.3.7.8 (5)

Things To Know and Most Frequently Cited

Any opening in your smoke barrier wall – doors, window, penetrations, etc – must provide the same protection as the barrier wall per the code requirements.

Smoke barrier doors must be inspected annually.

- The inspections must be conducted by an individual who is trained to do the inspection.
- The inspections must be documented and available for review.

The Code does not specify how often you need to inspect smoke barrier walls.

- It is the facility's responsibility to develop policies and procedures to inspect and maintain all life safety code systems and ensure they are in good condition.
- These inspections should be documented and available upon request by the AHJ.

Recommendation: No less than anytime there is work which may affect the barrier wall and seasonal (quarterly).

Most frequently cited:

- **Smoke walls:** Unsealed space around smoke wall penetrations; penetrations sealed with substance which was not approved for fire rated construction; dampers not functioning when the fire alarm was activated
- **Smoke doors:** Did not release with the fire alarm, did not fully closed when released, spaces between doors or at bottom of the door greater than Code allowances; vision panels do not meet Code requirements.

HEALTH CARE
AUTHORITY

FIRE ALARM SYSTEM

FIRE ALARM SYSTEM

Fire alarms must be initiated by manual means, the sprinkler system, and detection device or systems. 18.3.4.2.1, 19.3.4.2.1

A complete fire alarm system includes functions for initiation, notification, and control. NFPA 101, 9.6.1.7

Actuation of the fire alarm system shall be initiated by manual fire alarm initiation, automatic detection, or extinguishing system operation. NFPA 101, 9.6.2.1

Manual fire alarm box (pull station) must be red in color, mounted on a background of contrasting color, and securely attached to the wall between 42 in and 48 in above floor level. They must be located within 5 ft of exit doors, and on both sides of grouped openings over 40 ft wide. NFPA 101, 9.6.2.3, 9.6.2.4; NFPA 72, 17.14

Manual pull stations must be located on all floors and in any part of the building so that the horizontal distance of travel does not exceed 200 ft between them. NFPA 101, 9.6.2.5; NFPA 72, 17.14.8

Manual pull stations shall be conspicuous, accessible, and unobstructed. NFPA 101, 9.6.2.7; NFPA 72, 17.14.5

FIRE ALARM SYSTEM

Waterflow alarm devices shall initiate the fire alarm when the flow of water is equal to or greater than that from a single automatic sprinkler. NFPA 101 9.6.2.8, NFPA 72, 17.12

Audible notification appliances are required, and visual notification appliances are required in areas where there are hearing impaired occupants. NFPA 101 9.6.3, 18.3.4.3 through 18.3.4.3.3, 19.3.4.3, 19.3.4.3.1, 19.3.4.3.2, 9.6.4

- The Code has specific guidelines for the audible and visible signals. NFPA 101 9.6.3.7; NFPA 72, 18.4, 18.5, 18.6
- The audible alarm must be distinctive from audible signals used for other purposes. NFPA 101 9.6.3.8, NFPA 72, 10.7, 10.9

Visible notification appliances shall be mounted between 80 in and 96 in above the finished floor. NFPA 72 18.5.4

- In areas where the ceiling will not allow 80-96 in installation height, the appliance must be mounted within 6 in of the ceiling. NFPA 72 18.5.4.2
- The Code specifies how many notification appliances should be in a room. NFPA 72, 18.5.4.3.1

FIRE ALARM SYSTEM

A means for turning off an activated fire alarm must be available. The means to turn off the system can be key operated, located within a locked box, or arranged to provide similar protection from unauthorized use. NFPA 72, 10.10.1-3

When the fire alarm is activated, the following functions must occur: door hold-open devices release, stairwell or elevator shaft pressurization, smoke management or smoke control systems activate, doors unlock, elevator recall and shutdown, HVAC shutdown. NFPA 101, 9.6.5.2

Fire alarms connected by the generator shall be in compliance with NFPA 72 10.5.10, NFPA 110, NFPA 111

The Code is very specific about smoke detector installation. Smoke detectors must also be installed in spaces open to corridors and in areas that are not continuously occupied. NFPA 101, 18.3.4.5.3, 19.3.4.5.2; 9.6.1.8.1

Smoke detectors shall be located on the ceiling. If on a sidewall, then they shall be mounted 12 in down from the ceiling to the top of the detector. NFPA 72, 17.7.3.2.1, 17.7.3.2.3.1

Smoke detectors should not be located within 36 in of an air supply diffuser or return air opening. NFPA 72, 17.7.4.1

FIRE ALARM SYSTEM

The fire alarm system must notify the local fire department of the fire or other emergency. NFPA 101, 9.6.4

A system trouble signal and supervisory signal shall be annunciated at the control center by means of audible and visible indicators, and this must be in a location where the signal is likely to be heard. NFPA 101, 9.6.7.5, 9.6.7.6; NFPA 72, 10.12.5

The fire alarm must be powered by at least two independent and reliable power supplies, a primary and a secondary. 18.3.4.4, 19.3.4.4, 9.6.1, 9.6.5; NFPA 72, 10.5.3

> The Code is very specific about the power supplies, how they are marked and their sources. NFPA 72, 10.5.5, 10.5.6

Fire alarm batteries shall be marked with the month and year of manufacture. NFPA 72 10.5.9.1.1, 10.5.9.1.2

Where the battery is not marked with the month/year by the manufacturer, the installer shall obtain the date code and mark the battery with the month/year of battery manufacture. NFPA 72 10.5.9.1.2

FIRE ALARM SYSTEM SERVICE PERSONNEL

Fire Alarm System service personnel shall be qualified and experienced in the inspection, testing, and maintenance of systems addressed within the scope of this Code. Qualified personnel shall include, but not limited to, one or more of the following:
NFPA 72 10.4.3.1*

(1)*Personnel who are factory trained and certified for the specific type and brand of system being serviced,

(2)*Personnel who are certified by a nationally recognized certification organization acceptable to the authority having jurisdiction,

(3)*Personnel who are registered, licensed, or certified by a state or local authority to perform service on systems addressed within the scope of this Code,

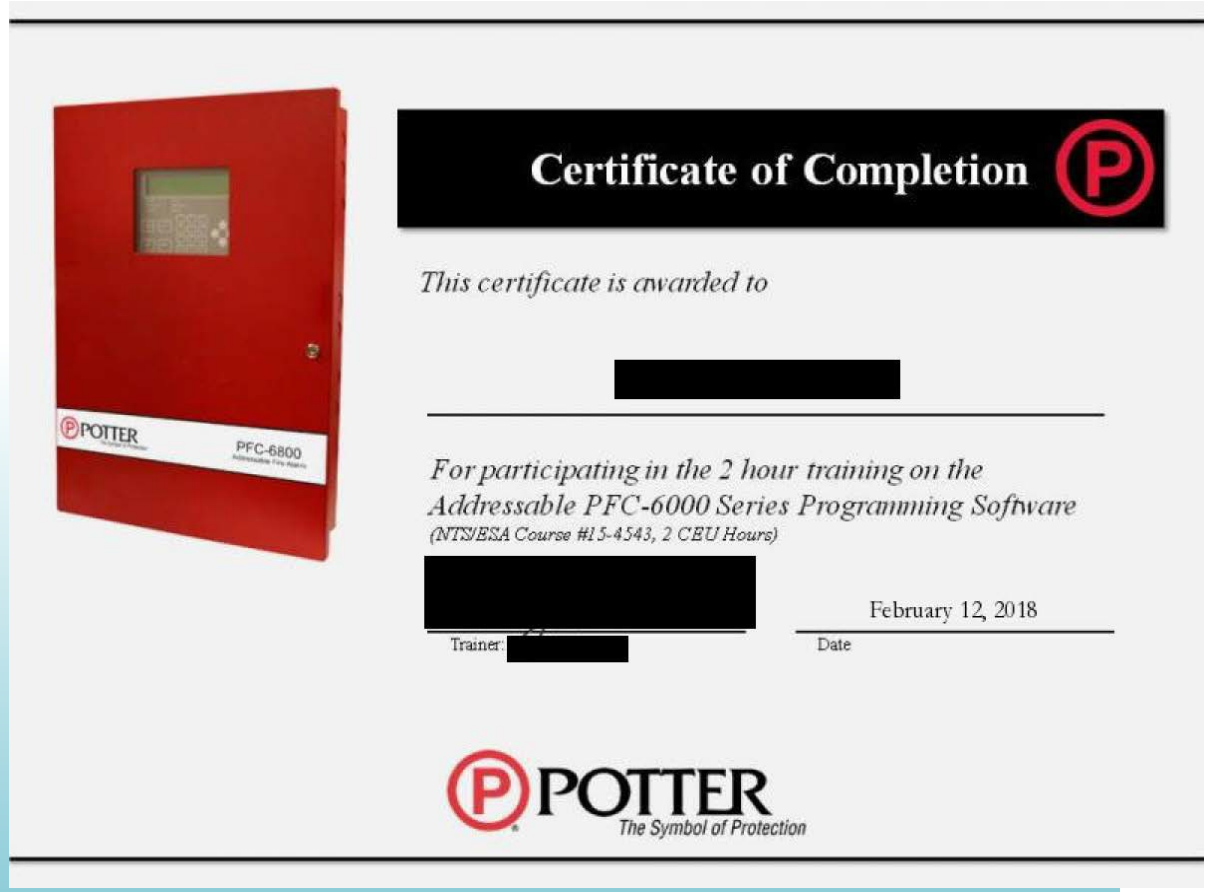
(4)*Personnel who are employed and qualified by an organization listed by a nationally recognized testing laboratory for the servicing of systems within the scope of this Code.

Evidence of qualifications shall be provided to the authority having jurisdiction upon request.
NFPA 72, 10.4.3.2

Fire Alarm System Inspector Certifications Examples

Personnel who are factory trained and certified for the specific type and brand of system being serviced.

Factory training and certification is intended to allow an individual to service equipment only for which he or she has specific brand and model training. NFPA 72, A.10.4.3.1(1)



Fire Alarm System Inspector Certifications Examples

Personnel who are certified by a nationally recognized certification organization acceptable to the authority having jurisdiction,
Nationally recognized fire alarm certification programs might include those programs offered by the International Municipal Signal Association (IMSA) and National Institute for Certification in Engineering Technologies (NICET).
NOTE: These organizations and the products or services offered by them have not been independently verified by the NFPA, nor have the products or services been endorsed or certified by the NFPA or any of its technical committees.
NFPA 72, A.10.4.3.1(2)

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BE IT KNOWN THAT

Your fire inspector's name

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LEVEL III

IN FIRE PROTECTION ENGINEERING TECHNOLOGY
FIRE ALARM SYSTEMS

BASED UPON SUCCESSFUL DEMONSTRATION OF REQUISITE KNOWLEDGE, EXPERIENCE AND WORK PERFORMANCE AS SET FORTH BY THIS INSTITUTE.

Certification Valid through February 1, 2018

CERTIFICATION NUMBER 107102

Stephen L. Dyrnes, P.E.

CHAIRMAN OF THE NICET BOARD OF GOVERNORS

A DIVISION OF THE NATIONAL SOCIETY OF PROFESSIONAL ENGINEERS

Fire Alarm System Inspector Certifications Examples

Personnel who are registered, licensed, or certified by a state or local authority to perform service on systems addressed within the scope of this Code,
Licenses and certifications offered at a state or local level are intended to recognize those individuals who have demonstrated a minimum level of technical competency in the area of fire alarm servicing. NFPA 72, A.10.4.3.1(3)

NEW MEXICO STATE FIRE MARSHAL'S OFFICE

CERTIFICATE OF FITNESS

Your Fire Alarm Company, Inc.

Has fulfilled the ... of the New ... Fire Marshal's Office "Certificate of Fitness Program ... New Mexico Administrative Code. In doing so, the holder ... install, maintain and repair the following types of ... the State of New Mexico.

- [X] Fire Sprinkler Systems
- [X] Chemical Fire Extinguishing Systems
- [X] Fire Alarm Systems
- [ ] Portable Fire Extinguishers
- [ ] Fire Smoke Dampers
- [ ] Smoke Dampers - Electrically Actuated

THIS CER... TE EXPIRES: ...MBER 31, 2026

THIS CERTIFICATE IS NOT AN END...SEMENT OF THIS COM...NY AND MAY BE REVOKED AT ANY TIME

*ALTERING OF THIS DOCUMENT WILL VOID THIS CERTIFICAT AND WILL RESULT IN CERTIFICATE OF FITNESS BEING REVOKED

2025/2026

Candice Sena, Fire Inspector
State Fire Marshal's Office

#25 [redacted]

STATE OF NEW MEXICO
REGULATION AND LICENSING DEPARTMENT

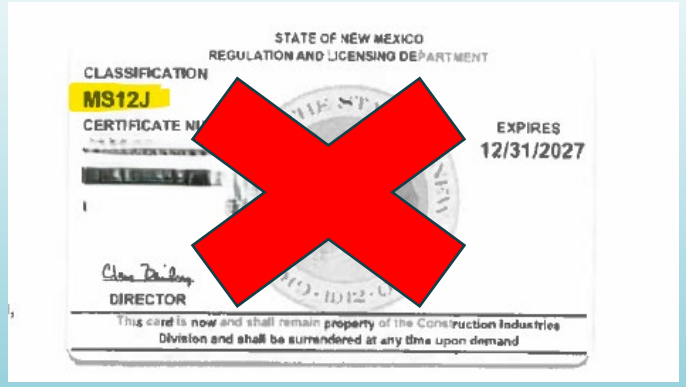
CLASSIFICATION
ES-3J

CERTIFICATE NUMBER [redacted]

EXPIRES
01/31/...028

DIRECTOR

This card is now and shall remain property of the Construction Industries Division and shall be surrendered at any time upon demand


STATE OF NEW MEXICO
REGULATION AND LICENSING DEPARTMENT

CLASSIFICATION
MS12J

CERTIFICATE NU... [redacted]

EXPIRES
12/31/2027

DIRECTOR

This card is now and shall remain property of the Construction Industries Division and shall be surrendered at any time upon demand

Things To Know and Most Frequently Cited

Table 14.3.1 Visual inspection requirements
Table 14.4.2.2 Testing Methods
Table 14.4.5 Testing requirement
NFPA 72, 14.6.2 inspection, testing, and maintenance documentation requirements (includes the name and signature of the inspector and the facility representative)

Most frequently cited: Certification of Fire Alarm (FA) inspectors; unlocked fire alarm control panels/annunciator panels; key in fire alarm control panels/ annunciator panels or key accessible; missing inspection and testing records; incomplete inspection and testing records, no semi-annual inspection, no signature of facility representative, wrong facility address, no documentation of visual/functional test of equipment, report not itemized/missing device location, no pass/fail; no smoke detector sensitivity test; frequency of report not stated on record; blocked pull station; pull station not visible; smoke detectors covered in a construction zone after hours; notification appliances not secured to the wall; trouble signal did not have an audible signal at annunciator panel

HEALTH CARE
AUTHORITY

SPRINKLER SYSTEM

SPRINKLER SYSTEM

A sprinkler must be installed in all areas of the building, except where specific sections of this standard permit the omission of sprinklers. NFPA 13, 4.1, 8.1(4)

Sprinklers must be installed in all locations and must be positioned and located to provide satisfactory performance with respect to activation time and distribution. NFPA 13, 8.1, A.8.1.1

- This applies to all parts of the finished structure, to include closets.
- This does not apply to portable furniture, even if it is secured to the finish structure.
- Walk-freezers, refrigerators, bank vaults, and similar structures are required to have sprinkler heads installed.

Elevator hoistways and machine rooms are required to have a sidewall spray sprinkler installed no more than 2 ft above the pit floor, ideally on the door side. NFPA 13, 8.15.5, A.8.15.5.1

Exterior Roofs, Canopies, Porte-Cocheres, Balconies, Decks, or Similar Projections which measure greater than 2 ft wide (deep) and made of combustible construction shall have a sprinkler installed. NFPA 13, 8.15.7, 8.15.7.5

Standard pendent and upright spray sprinklers shall be installed a minimum of 4 in. from the wall. NFPA 13, 8.5.3.3 , 8.6.3.3

SPRINKLER SYSTEM

Hydraulic Design Information Sign shall be legible, constructed of weatherproof metal or rigid plastic, and securely attached to the sprinkler riser with durable wire, chain, or the equivalent. The Code is specific about the information which must be included on the sign. The HDIS shall be inspected quarterly. NFPA 13, 24.5, NFPA 25, 5.2.6

An Information sign shall be legible and securely attached to each system control valve, antifreeze loop, and auxiliary system control valve with durable wire, chain, or the equivalent. The IS shall be inspected annually. NFPA 25, 5.2.8

Sprinkler heads shall be in good condition and shall not show signs of leakage; shall be free of corrosion, foreign materials, paint, and physical damage. They shall have an escutcheon plate in place and shall be installed in the correct orientation (e.g., upright, pendent, or sidewall) NFPA 101, 8.3.5.1, NFPA 25, 5.2.1.1.1

Any sprinkler that shows signs of leakage, corrosion, physical damage, loss of fluid in the bulb, loading, or paint shall be replaced. NFPA 25, -5.2.1.1.2

SPRINKLER SYSTEM

Standard spray sprinklers shall have a minimum clearance of 18 inches. NFPA 25, 5.2.1.2, A.5.2.1.2, NFPA 13

Objects against walls are permitted to ignore the minimum spacing rules as long as the sprinkler is not directly above the object.

If obstructions that might cause a concern are present, the owner is advised to have an engineering evaluation performed.

If a quick response sprinkler is installed in a smoke compartment, then all sprinklers in that smoke compartment shall be quick response. NFPA 13, 8.3.3.2, 8.3.3.4

Backflow devices shall be installed on each supply line (domestic, fire, irrigation), if more than one, and shall be inspected monthly and tested annually. NFPA 13, 8.16.1.1.3, 8.17.4.6, NFPA 25, Table 13.1.1.2

Fire Department Connections shall visible and recognizable from the street or nearest point of fire department apparatus accessibility. It shall have a permanently marked sign constructed of weather resistant metal or rigid plastic materials. The FDC shall have a 36 in clearance and shall be inspected quarterly. NFPA 14, 4.8, 6.3.8, 6.4; NFPA 25, 13.7.1; NFPA 1 13.1.3, 13.1.4

Things To Know and Most Frequently Cited

NFPA 25, Table 5.1.1.2 and Table 13.1 list inspection and testing frequencies for sprinkler systems.

Sprinkler system records shall be maintained by the property owner. NFPA 25, 4.3.3

All required documentation regarding the designs of the sprinkler system and the procedures for maintenance, inspection, and testing shall be maintained at an approved, secured location **for the life of the fire protection system**. NFPA 101, 9.7.7; NFPA 25 4.3.4

Most frequently cited: Broken or missing ceiling tiles; missing escutcheon plate; escutcheon plates not tight to the ceiling; gaps and spaces around sprinkler head escutcheon plates; sprinkler head installed within 4 inches of wall; egress door overhangs greater than 48 inches and combustibles present; missing or incomplete inspection records; no annual inspection and test of the backflow; backflow not installed between supply lines; no full trip every three years on dry sprinkler systems; no five year internal pipe, gauge calibration/replacement, or check valve test; no sprinkler head testing per Code requirements (50 wet, 20 QR, 10 dry); Hydraulic Design Information Sign not present on riser; FDC not visible from road/no signage; items within 36 inches of the FDC; quarterly FDC inspection documentation does not address the 8 point inspection; quick response sprinkler heads in same smoke compartment as standard sprinkler heads; 18 inch clearance under sprinkler heads not maintained; loaded, corroded, or painted sprinkler heads

HEALTH CARE AUTHORITY

MEANS OF EGRESS

MEANS OF EGRESS

Means of Egress Reliability: Means of egress shall be continuously maintained free of all obstructions or impediments to full instant use in the case of emergency. NFPA 101, 7.1.10, 4.5.3.2

Furnishings, decorations, or other objects cannot obstruct exits, access to exits, or visibility of exits, and the means of egress cannot be divided into sections by railings, barriers, or gates. . NFPA 101, 7.1.10.2.1-2

Every part of each story should have at least two accessible exits, which are remote from each other. Each smoke compartment shall likewise be provided with two distinct egress paths to exits that do not require the entry into the same adjacent smoke compartment. NFPA 101, 18.2.4, 18.2.5.1, 19.2.4, 19.2.5, 7.4, 4.5.3.1

The means of egress should not pass through kitchens, storerooms, restrooms, workrooms, closets, bedrooms or similar spaces, or other rooms or spaces subject to locking, unless it is specifically permitted by Chapter 18/19. NFPA 101, 7.5.2.1

The travel distance between any point in a room and the exit shall not exceed 200 ft (61 m). NFPA 101, 18.2.6, 19.2.6, 7.6.1

The means of egress shall terminate directly at a public way or at an exterior exit discharge, and the path to the public way shall be obvious and clear. NFPA 101, 7.7.1, 7.7.3.2

MEANS OF EGRESS

Changes in elevation: abrupt changes in elevation of walking surfaces shall not exceed ¼ in. Changes in elevation between ¼” to ½” shall be beveled with a slope of 1 in 2. Changes in elevation exceeding ½” shall be considered a change in level and will require a ramp or stair. NFPA 101, 7.1.6.2, 7.1.7

Walking surfaces shall be nominally level, shall not exceed 1 in 20 (5% slope), and the slope perpendicular to the direction of travel shall not exceed 1 in 48 (2.08% side to side tilt). NFPA 101, 7.1.6.3

Walking surfaces shall be slip resistance under foreseeable conditions. NFPA 101 7.1.6.4

Corridors serving as an exit access shall be at least 4 ft wide (existing)/8 ft wide (new) and maintained to provide convenient removal of non-ambulatory residents. NFPA 101, 18.2.3.4, 19.2.3.4

Aisles, corridors, and ramps in adjunct areas not intended for the housing, treatment, or use by residents shall not be less than 44 in in clear and unobstructed width. NFPA 101, 18.2.3.4 (1), 19.2.3.4 (1)

Where the corridor is at least 6 ft wide, non-continuous projections not less than 38 in above the floor (existing) / above the handrail (new) are permitted. They can not project more than 6 in from the corridor wall. NFPA 101, 18.2.3.4 (2)m 19.2.3.4 (2)

MEANS OF EGRESS

If the corridor measures at least 8 ft, then fixed furniture is allowed provided **all of the following** conditions are met: NFPA 101, 19.2.3.4 (5)

(a) The fixed furniture is securely attached to the floor or to the wall.
(b) The fixed furniture does not reduce the clear unobstructed corridor width to less than 6 ft (1830 mm), except as permitted by 18.2.3.4(2), 19.2.3.4(2).
(c) The fixed furniture is located only on one side of the corridor.
(d) The fixed furniture is grouped such that each grouping does not exceed an area of 50 ft2 (4.6 m2).
(e) The fixed furniture groupings are separated from each other by a distance of at least 10 ft (3050 mm).
(f)*The fixed furniture is located so as to not obstruct access to building service and fire protection equipment.
(g) Corridors throughout the smoke compartment are protected by an electrically supervised automatic smoke detection**, and (existing) / or (new)** the fixed furniture spaces are arranged and located to allow direct supervision by the facility staff from a nurses' station or similar space.
(h) NEW: The smoke compartment is protected throughout by an approved, supervised automatic sprinkler system.

Wheeled equipment and carts in use can be in the corridor, but cannot reduce the clear and unobstructed corridor width to less than 60 in. Staff must practice the removal of these items during fire drills. These equipment includes food service carts, housekeeping carts, and medication/treatment carts. NFPA 101, 18.2.3.4 , A.18.2.3.4 (4)(c), 19.2.3.4 (4), A.19.2.3.4 (4)(c).

Isolation carts for residents with active infections and unattended wheeled crash carts are allowed to be in the corridors. NFPA 101, A.18.2.3.4 (4)(c), A.19.2.3.4 (4)(c).

Things To Know and Most Frequently Cited

There is a lot of information in the Code regarding means of egress, and it is covered in NFPA 101, 18.2, 19.2, and Chapter 7

It covers topics like sleeping and non-sleeping suites, horizontal exits, stairs, smokeproof enclosures, areas of refuge, ramps, exit passageways, exit capacity, and dead ends.

These chapters also have multiple variations/conditions and referrals to the Appendix.

The Code does not specify how often you need to inspect means of egress.

It is the facility's responsibility to develop policies and procedures to inspect and maintain all life safety code systems and ensure they are in good condition.

These inspections should be documented and available upon request by the AHJ.

Most frequently cited: Means of egress not free and clear at all times; means of egress divided/blocked with a gate, temporary wall or partition; failure to have two means of egress from any location/floor; openings into means of egress corridor not fire rated/able to resist the passage of smoke (window opening); areas opened to the corridor which do not have smoke detector; changes in elevation in means of egress greater than Code allowance; uneven exit discharge to the public way

HEALTH CARE
AUTHORITY

FACILITY DOORS

FACILITY DOORS

Types of Facility Doors: Smoke doors, egress doors, corridor doors, doors with self-closing devices, horizontal doors, doors to hazardous areas, Dutch doors, etc..

Types of Egress Doors: Clinical needs and security threats, special needs locking arrangements, delayed egress locking arrangements, access controlled locking arrangements , elevator lobby exit access NFPA 101, 18.2.2.2, 19.2.2.2.

Door leaves shall be arranged to be opened readily from the egress side whenever the building is occupied. NFPA 101, 7.2.1.5.1

Exit access doors and exit doors must be the swinging type and at least 32 inches (existing)/ 41.5 in (new) in clear width. There are exceptions to this requirements. NFPA 101, 18.2.3.6, 18.2.3.7, 19.2.3.6, 19.2.3.7

Doors must open to the full width of the door. NFPA 101, 7.2.1.4.1

A latch or other fastening device on a door must have an obvious method of operation that can be readily operated under all lighting conditions. The device must be at least 34 in above the floor (existing)/ 48 in above the finished floor (new) NFPA 101, 7.2.1.5.10, 7.2.1.5.10.1

The releasing mechanism shall open the door with not more than one releasing operation. NFPA 101, 7.2.1.5.10.2

FACILITY DOORS

Doors within a required means of egress shall not be equipped with a latch or lock that requires the use of a tool or key from the egress side. NFPA 101, 18.2.2.2.2.4-5, A.18.2.2.2.5.1, 19.2.2.2.2.4-5, A. 19.2.2.2.5.1 7.2.1.5.3, 7.2.1.6

- There are exceptions: Special locking arrangements are made for clinical needs, security threats, special needs, delayed egress locks, access control and elevator lobby exit.
- Clinical needs of residents include psychiatric units, Alzheimer units, and dementia units.
- Security threats include forensic units and detention units are examples of security threat.
- Special needs includes pediatric units, maternity units, and emergency departments are examples of special needs.

Door locking arrangements shall be permitted where the clinical needs of patients require specialized security measures, provided staff can readily unlock doors at all times. NFPA 101, 18.2.2.2.5.1, 18.2.2.2.6, 19.2.2.2.5.1, 19.2.2.2.6

- These doors must have a provision for the rapid removal of occupants by either a remote control of locks, staff carry the keys with them at all times, or another reliable means available to staff at all times.
- There is only one locking device on the door.

None of the special locking arrangements are intended to allow credentialed egress, request to exit, or similar provisions, where an occupant cannot leave the building. It is understood facilities want to keep track of their residents; however, free egress needs to be available at all times. Another option is for facilities to use delayed egress locking systems. NFPA 101, A.7.2.1.6

FACILITY DOORS

Delayed egress doors are a type of special locking arrangement door. Approved and listed delayed egress systems can be installed on doors assemblies serving low and ordinary hazard content buildings protected by a sprinkler system or a fire alarm system. NFPA 101, 7.2.1.6

The doors must unlock with the activation of the sprinkler system and fire alarm system or loss of power to the locking device. NFPA 101, 7.2.1.6.1.1 (1-2)

An irreversible process shall release the lock in the direction of egress within 15 seconds when force is applied to the panic bar. The force shall not be required to be applied continuously for more than 3 seconds. NFPA 101, 7.2.1.6.1.1 (3)

The initiation of the unlocking process shall activate an audible signal in the vicinity of the door. NFPA 101, 7.2.1.6.1.1 (3)

A readily visible, durable sign on contrasting background shall be located on the door leaf, and shall read, "Push until alarm sounds. Door can be opened in 15 seconds." NFPA 101, 7.2.1.6.1.1 (4)

The letters must not be less than 1 in high and 1/8 in width.

Relocking the door must be by manual means only. NFPA 101, 7.2.1.6.1.1 (3)

FACILITY DOORS

Access controlled locks are permitted in the means of egress with all the following conditions. NFPA 101, 7.2.1.6.2

A sensor shall be provided on the egress side and arranged to unlock the door leaf in the direction of egress upon detection of an approaching occupant. NFPA 101, 7.2.1.6.2 (1)

Door leaves shall automatically unlock in the direction of egress upon loss of power to the sensor or system that locks the door. NFPA 101, 7.2.1.6.2 (2)

Door locks shall unlock in the direction egress from a manual release device which is readily accessible and clearly identified by a sign that states, “Push to exit.” NFPA 101, 7.2.1.6.2 (3)

The door must remain unlocked for not less than 30 seconds.

Activation of the sprinkler system or the fire alarm system unlocks the door, and the door remains unlocked until the sprinkler or fire alarm system is reset. NFPA 101, 7.2.1.6.2 (4-6)

FACILITY DOORS

Any door in the exit passageway, stairway enclosure, horizontal exit, smoke barrier, or hazardous area enclosure must have a self-closing device, and they cannot be secured in the open position at any time. They shall have a self-closing or automatic closing device. NFPA 101, 7.2.1.8.1

Self-closing or automatic closing doors can be held open with a devise which is designed to release the door upon loss of power to the device or by activation of the sprinkler system or fire alarm system. These doors can be held open only by an automatic releasing device that is activated by the sprinkler system and the fire alarm system. NFPA 101, 18.2.2.2.7, 19.2.2.2.7, 7.2.1.8.2

Corridor doors shall be constructed to resist the passage of smoke. NFPA 101, 18.3.6.3.1, 19.3.6.3.1

Corridor doors cannot have transfer grilles or louvers. NFPA 101, 18.3.6.4.1, 19.3.6.4.1

The doors must have a means for keeping the door closed that is acceptable to the AHJ and is capable of keeping the door fully closed in a force of 5 lbf is applied to the latch edge of the door. NFPA 101, 18.3.6.3.7, 19.3.6.3.5

The clearance between the bottom of the corridor door and the floor covering shall not exceed 1 in. NFPA 101, 18.3.6.3.1, 19.3.6.3.1

Corridor doors utilizing an inactive leaf shall have automatic flush bolts on the inactive leaf to provide positive latching. NFPA 101, 18.3.6.3.8

FACILITY DOORS

Dutch doors are permitted with the following conditions: NFPA 101, 18.3.6.3.13, 19.3.6.3.13

- The upper leaf and the lower leaf are equipped with a latching device.
- The meeting edges of the upper and lower leaves are equipped with an astragal, rabbet, or bevel.
- Protecting hazardous areas, the doors must comply with NFPA 80 requirements.

Windows, that because of their physical configuration or design and the materials used in their construction, have the potential to be mistaken for door openings shall be made inaccessible to the occupants by barriers or railings. NFPA 101, 7.2.1.1.2

Furnishings, decorations, or other objects shall not obstruct visibility of or access to exits. NFPA 101, 7.1.10.2.1, 7.5.2.2

Mirrors shall not be placed on exit door leaves. Mirrors shall not be placed in or adjacent to any exit in such a manner as to confuse the direction of egress. NFPA 101, 7.1.10.2.3

Things To Know and Most Frequently Cited

All facility doors are required to be inspected annually. These inspections should be documented and available for review upon request by the AHJ.

There is a lot of information in the Code regarding facility doors, and it is covered in NFPA 101, 18.2, 19.2, and Chapter 7

Most frequently cited: Delayed egress door signage not contrasting; delayed egress door not releasing with FA; delayed egress door alarm not audible at door; delayed egress door signage not on contrasting background; delayed egress signage not on the door panel; delayed egress greater than 15 seconds without a variance; delayed egress door did not have any signage; delayed egress signage was not on the door panel/each door panel; egress door code not available for free egress without staff intervention; doors not opening to a full width of the door; doors with self-closing devices propped open with something that did not release the door with the fire alarm (wedge, trash can, chair, etc.); self-closing device was broken and did not function; the self-closing device had a manual locking device which did not release the door when the fire alarm was activated; magnetic door holding device did not release with fire alarm activation; self-closing door did not latch when actuated; corridor door did not latch when closed; corridor door required excessive force to close; corridor door did not resist the passage of smoke; corridor door could not close and latch due to an obstruction; double doors in the corridor in which one panel required manual latching; top panel of Dutch door did not have a latching device; Dutch door did not have an astragal or bevel between the upper and lower panels; missing door inspection paperwork for all door types; door inspection paperwork was missing information to include the location of the door/not itemized, the criteria, the three part date of inspection, the results of the inspection, the inspectors name.

HEALTH CARE AUTHORITY

EXIT SIGNAGE

EXIT SIGNAGE

Exits shall be marked by an approved sign that is readily visible from any direction. This does not apply to main exterior exit doors that are obviously and clearly identifiable as exits. NFPA 101, 7.10.1.2.1

The sign shall be in plainly legible letter and shall read: EXIT. NFPA 101, 7.10.3.1

The Code provides specific guidelines for the height, width, and spacing of the letters. NFPA 101, 7.10.6.1.1, 7.10.7.1

When the continuation of the path of egress is not obvious, directional exit signs are required. NFPA 101, 7.10.1.2.2, 7.10.1.5.1, 7.10.2.1

The Code provides specific guidelines for the placement and visibility of the directional indicator. NFPA 101, 7.10.6.2.1

Every sign shall be located and of such size, distinctive color, and design that it is readily visible and shall provide contrast with decorations, interior finish, or other signs. NFPA 101, 7.10.1.8

No decorations, furnishings, or equipment that impairs visibility of a sign shall be permitted.

No brightly illuminated sign, display, or object in or near the line of vision of the required exit sign that could detract attention from the exit sign shall be permitted.

EXIT SIGNAGE

Every exit shall be clearly visible, or the route to reach every exit shall be conspicuously indicated. Each means of egress, in its entirety, shall be arranged or marked so that the way to a place of safety is indicated in a clear manner. NFPA 101, 4.5.3.3

The exit signs must be continuously illuminated, either externally or internally and legible in both the normal and the emergency lighting mode. NFPA 101 7.10.5.1, 7.10.5.2

The exit signs must be illuminated by the facility's emergency lighting, and the duration of the emergency lighting shall be for 1.5 hours in the event of failure of normal lighting. NFPA 101, 7.10.4, 7.9.2.1

Any door, passage, or stairway that is neither an exit nor a way of exit access and that is located or arranged so that it is likely to be mistaken for an exit shall be identified by a sign that reads as follows: NO EXIT. NFPA 101, 7.10.8.3.1

The Code provides specific guidelines about the height and width of the letters **and** the placement of the words. NFPA 101, 7.10.8.3.2

Things To Know and Most Frequently Cited

Exit signs shall be visually inspected for operation of the illumination sources at intervals not to exceed 30 days or shall be periodically monitored in accordance with the requirements for emergency lighting. NFPA 101, 7.10.9.1

Exit signs connected to, or provided with, a battery-operated emergency illumination source shall be tested and maintained in accordance with the requirements for emergency lighting. NFPA 101, 7.10.9.2

Most frequently cited: Exit signs not continuously internally or externally lit; exit signs not visible in all directions of the means of egress; exit signs not visible in the means of egress when the exit is not obvious.

HEALTH CARE
AUTHORITY

EMERGENCY LIGHTS

EMERGENCY LIGHTING

Illumination of means of egress shall be provided for every building and structure. NFPA 101, 7.8.1.1

This includes designated stairs, aisles, corridors, ramps, escalators, and passageways leading to an exit.

This includes designated stairs, aisles, corridors, ramps, escalators, walkways, and exit passageways leading to a public way.

The illumination of the means of egress shall be continuous. NFPA 101, 7.8.1.2

The emergency lighting shall be arranged to provide illumination automatically without manual intervention and shall be provided for a minimum of 1 ½ hrs in the event of failure of normal lighting. NFPA 101, 8.9.2.1, 7.9.2.3, 7.9.2.7

The Code is specific on how much light must be provided. NFPA 101, 8.9.2.1

Emergency lighting should consist of no less than two bulbs at each device. NFPA 101, 7.8.1.4

EMERGENCY LIGHTING

If the emergency lights switch from one energy source to another, the delay shall not be more than 10 seconds. NFPA 101, 7.9.1.3

Automatic, motion sensor–type lighting switches shall be permitted within the means of egress, with conditions. NFPA 101, 7.8.1.2.2

Energy-saving sensors, switches, timers, or controllers shall be approved and shall not compromise the continuity of illumination of the means of egress. NFPA 101, 7.8.1.2.3

Battery operated emergency lights shall use reliable, rechargeable batteries, approved for the intended use, and in compliance with NFPA 70, National Electrical Code. NFPA 101, 7.9.2.6

Things To Know and Most Frequently Cited

Emergency lights connected to the emergency generator must be inspected weekly and tested annually for 1.5 hrs as part of the emergency generator program, and documentation of the inspection and test must be available for review upon request by the AHJ. NFPA 101, 7.9.2.4; NFPA 110, NFPA 111

Battery powered emergency lights must be tested for not less than 30 seconds monthly and 1.5 hrs annually. Documentation of the inspection and test must be available for review upon request by the AHJ. NFPA 101, 7.9.3.1

Most frequently cited: Emergency light inspection and testing documentation not available for review; Emergency light inspection and testing documentation missing information (location of device, not itemized, day/month/year of inspection, start/stop time of test); No 90 minute test for emergency lights connected to the emergency generator; Emergency lights not present for outside path of egress to the public way; egress lights did not have two bulbs; means of egress lights for outside areas not battery or generator backup.

EMERGENCY ELECTRICAL SYSTEM

EMERGENCY ELECTRICAL SYSTEMS

The generator stop button must be remote from the generator, labeled, and protected. NFPA 110, 5.6.5.6, A.5.6.5.6, 5.6.5.6.1

Generator equipment locations shall be provided with battery powered emergency lighting. NFPA 110, 7.3

Electrical receptacles supplied from the life safety and critical branches shall have a distinctive color or marking so they are readily identifiable. NFPA 99, 6.4.2.2.6.2

The facility shall have two sets of instruction manuals for all major components of the EPSS. One at the generator and one in a separate location. NFPA 110, 8.2.1 (1-5); 8.2.2

The generator or other alternate power source and associated equipment must provide service to the facility's critical and life safety branches within 10 seconds. NFPA 99, 6.4.4.1.1; 6.5.4.1.1.1; NFPA 110, Table 4.1

EMERGENCY ELECTRICAL SYSTEMS

A remote annunciator for the generator, that is storage battery powered, shall be provided outside the generating room, in a location readily observed at a regular workstation. It must have an audible alarm.
NFPA 99, 6.4.1.1.17; NFPA 110, 5.6.6

The remote annunciator must be hard wired to indicate alarm conditions of the emergency generator or alternate power source.
(1) Individual visual signals shall indicate when the emergency or auxiliary power source is operating to supply power to load and when the battery charger is malfunctioning.
(2) Individual visual signals plus a common audible signal to warn of an engine-generator alarm condition shall indicate the following:
(a) Low lubricating oil pressure
(b) Low water temperature (below that required in 6.4.1.1.11)
(c) Excessive water temperature
(d) Low fuel when the main fuel storage tank contains less than a 4-hour operating supply
(e) Overcrank (failed to start)
(f) Overspeed
NFPA 99, 6.4.1.1.17

EMERGENCY ELECTRICAL SYSTEMS

Transfer switches shall be subjected to a maintenance and testing program that includes all of the following operations:
(1) Checking of connections
(2) Inspection or testing for evidence of overheating and excessive contact erosion
(3) Removal of dust and dirt
(4) Replacement of contacts when required

Where sealed devices are used, replacement of the complete device might be necessary. Maintenance should be performed according to manufacturer's recommendations. In the absence of such recommendations, the above list gives the minimal procedures.

Transfer switches should be subjected to an annual maintenance program including (one) major maintenance and (three) quarterly inspections.

NFPA 110, 3.3.9, 8.3.5, A.8.3.5

EMERGENCY ELECTRICAL SYSTEMS

All generators types must be inspected weekly, exercised under load 30 minutes monthly, be serviced annually, and exercised once every 36 months for 4 continuous hours. NFPA 110, 8.3, 8.4.1, 8.4.2, 8.4.2.3, 8.4.2.4, 8.4.9

Diesel generators must be exercised under load 90 minutes annually.

- There is an exception for the annual 90 minute load bank for diesel powered generators. If the monthly load bank is conducted for 30 continuous minutes at ≥ 30% of its nameplate kW rating or if it meets the manufacturer's minimum exhaust temperature during the 30 continuous minutes, then the annual 90 minute load bank requirement is waived.

Diesel generators shall have A fuel quality test shall be performed at least annually using tests approved by ASTM standards. NFPA 11, 8.3.8

Generator batteries must be inspected weekly, and lead acid batteries must be tested monthly. Defective batteries shall be replaced immediately. NFPA 110, 8.3.7.1-2

Main and feeder circuit breakers shall be inspected annually, and a program for periodically exercising the components shall be established according to manufacturer's recommendations. Main and feeder circuit breakers should be periodically tested under simulated overload trip conditions to ensure reliability. NFPA 99, 6.4.4.1.2.1*, A.6.4.4.1.2.1

EMERGENCY ELECTRICAL SYSTEMS

A written schedule for routine maintenance and operational testing of the EPSS shall be established. NFPA 110, 8.3.3

Written records of the inspections must be maintained and available for review upon request. NFPA 99, 6.4.4.2; NFPA 110, 8.3.4

The permanent record shall include the following:
(1) The date of the maintenance report
(2) Identification of the servicing personnel
(3) Notation of any unsatisfactory condition and the corrective action taken, including parts replaced
(4) Testing of any repair for the time as recommended by the manufacturer
NFPA 110, 8.3.4.1

Things To Know and Most Frequently Cited

Facilities are not required to have a generator for emergency power. If a facility does not need the backup generator and decides not to have one, then their Emergency Preparedness Plan should clearly state what they will do in the event of power outage. Emergency equipment, such as the fire alarm control panel, emergency lights, exit signs, etc., have battery back-up power and a limited power life. The Emergency Preparedness Plan should clearly state the length of time the facility is able to stay in the building before evacuation occurs.

Most Frequently Cited: Missing or incomplete inspection and testing records – no monthly load banks, no annual load banks, no 4hr/3yr load bank, no main and circuit breaker inspections, no transfer switch inspection; transfer switch inspection not per Code requirements, no diesel fuel test, missing weekly visual inspections; emergency shut off not remote from the housing unit; emergency shut off not protected or labeled; no emergency light at the generator; trouble signal at the annunciator panel without documentation of a facility investigation/follow-up

HEALTH CARE AUTHORITY

PORTABLE FIRE EXTINGUISHERS

PORTABLE FIRE EXTINGUISHERS

All facilities must have fire extinguishers present. Fire extinguishers shall be provided for the protection of both the building structure and the occupancy hazards contained therein regardless of the presence of any fixed fire suppression systems. NFPA 10, 5.4.2*

Fire extinguishers shall be conspicuously located, along the normal paths of travel to include exits, where they are readily accessible and immediately available in the event of fire. They shall not be obstructed or obscured from view. NFPA 10, 6.1.3, 6.1.3.3.1, 6.1.3.2

Fire extinguisher shall be securely installed in a hanger designed for the PFE, in a listed bracket or bracket from the manufacturer, in a cabinet or wall recess. NFPA 10, 6.1.3.4

Fire extinguishers having a gross weight up to 40 lbs shall be installed so that the top of the PFE is not more than 5 ft above the floor, and the clearance between the bottom of the PFE and the floor cannot be less than 4 inches. NFPA 10, 6.1.3.8

PORTABLE FIRE EXTINGUISHERS

The fire extinguishers' operating instructions shall be located on the front of the extinguisher and clearly visible. NFPA 10, 6.1.3.9.1

Cabinets housing fire extinguishers shall not be locked, except where fire extinguishers are subject to malicious use. The locked cabinets must include a means of emergency access. NFPA 10, 6.1.3.10.1

The location of fire extinguishers in cabinets shall be marked conspicuously. NFPA 10, 6.1.3.10.2

- Acceptable means of identifying the fire extinguisher locations include arrows, lights, signs, or coding of the wall or column. NFPA 10, A.6.1.3.3.2

Fire extinguishers mounted in cabinets or wall recesses shall be placed so that the fire extinguisher's operating instructions face outward. NFPA 10, 6.1.3.10.3

Fire extinguishers shall not be exposed to temperatures outside the listed temperature range shown on the fire extinguisher label. NFPA 10, 6.1.3.11*

PORTABLE FIRE EXTINGUISHERS

The owner or designated agent or occupant of a property in which fire extinguishers are located shall be responsible for inspection, maintenance, and recharging. NFPA 10, 7.1.1

Fire extinguishers shall be inspected monthly for the following:
- Location in designated place
- No obstruction to access or visibility
- Pressure gauge reading or indicator in the operable range or position
- Fullness determined by weighing or hefting for self-expelling type extinguishers, cartridge operated extinguishers, and pump tanks
- Verifying that operating instructions on nameplates are legible and face outward,
- Checking for broken or missing safety seals and tamper indicators,
- Examination for obvious physical damage, corrosion leakage, or clogged nozzle.

NFPA 10, 7.2, 7.2.2.2

The inspection shall be documented, and it must include the date of the inspection and the initials of the person who performed the inspection. The record for the inspection shall be kept on a tag or label attached to the PFE, on an inspection checklist, or in an electronic record. NFPA 10, 7.2.4.3, 7.2.4.4

The records shall be kept and available for review upon request by the AHJ. NFPA 10, 7.2.4.5

PORTABLE FIRE EXTINGUISHERS

All fire extinguishers shall be manually inspected when initially placed in service and at 30 day intervals thereafter. NFPA 72, 7.2.1.1-2

All fire extinguishers shall be subjected to maintenance at intervals of not more than one year, and they shall have internal examinations as outlined by Code. NFPA 10 7.3.1.1.1, 7.3.1.1.2

Each fire extinguisher that has undergone maintenance that includes internal examination or recharging shall have a verification of service collar located around the neck of the container. The collar shall be a single circular piece of uninterrupted material which forms a hole that does not permit it to move over the neck of the PFE unless the valve is completely removed. NFPA 10, 7.3.3.2, 7.3.3.2.1, 7.3.3.2.1.1

The collar must include the month and year the service was performed and the name of the agency who performed the maintenance or recharging. NFPA 10, 7.3.3.2.1.3

The persons performing maintenance and recharging of PFEs shall be certified. Certification requires the person to pass a test administered by an organization acceptable to the AHJ. NFPA 10, 7.1.2.1

Things To Know and Most Frequently Cited

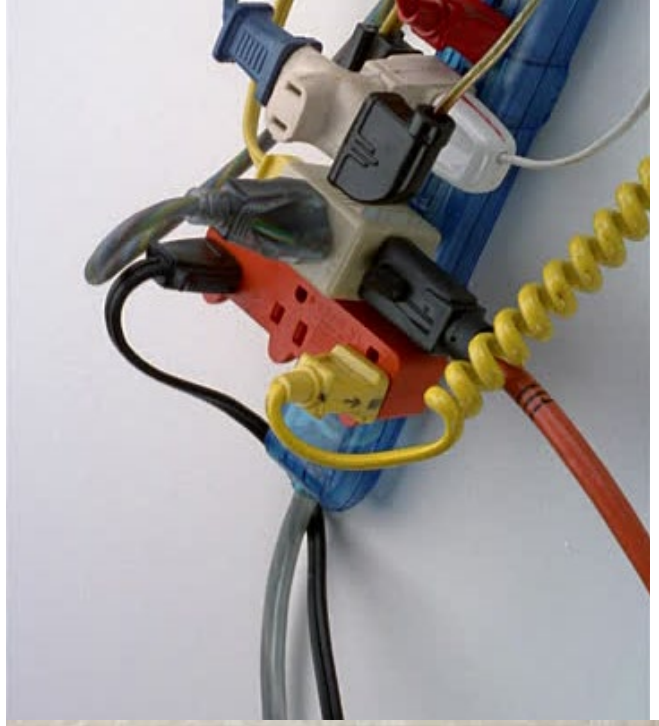
NFPA 10, Table 7.3.1.1.2 Internal Examination Intervals for Fire Extinguisher Types
NFPA 10, Table 6.2.1.1, 6.3.1.1 Fire Size and Travel Distance

- Type ABC extinguishers are the most common PFE, and their travel distance is 75 ft between extinguishers.
- Type K extinguishers are used in the kitchen, and their travel distance shall not exceed more than 30 ft from the hazard.

Most frequently cited: Fire extinguishers stored on the floor or not properly stored; monthly inspections not documented on tag or other record; no documentation of annual testing; 6yr testing not performed per the date on the PFE, internal inspection collar not on the fire extinguisher; distance between PFE greater than 75 ft; items in spray nozzle; blocked or obscured fire extinguishers; installation with the top of the PFE greater than 5 ft from the floor

HEALTH CARE AUTHORITY

ELECTRICAL SYSTEM



ELECTRICAL SYSTEMS

Electrical equipment must be listed and in good condition. NFPA 70, Article 100, 110.3, 110.12, 410.1-6

Electrical panels must be locked or protected to prevent unauthorized access and have clear working space to permit safe operation and maintenance of the equipment. The working space must measure 3 ft from the front of the panel, and it shall be clear and extend from the grade, floor, or platform to 6.5 ft high or the height of the equipment, whichever is greater. NFPA 70, 110.26, 110.27

Exposed electrical wires must be protected, and junction boxes must have covers. NFPA 70, 314.25, 314.28, 406.5

All outlets must have a faceplate which is securely attached and covers the opening. NFPA 70, 406.5, 406.6

GFCI outlets must be installed if the outlet is within 6 ft of the outside edge of a sink or water source. NFPA 70, 210.8

Spliced cords are not allowed. NFPA 70, 400.9

A certified electrician must perform or certify repairs to electrical equipment and appliances. NFPA 70, 90.7, 110.3

ELECTRICAL SYSTEMS

Each resident room must have a minimum of 8 receptacles (4 outlets). NFPA 99, 6.3.2.2.6.2; NFPA 70, 517.18 (B)

Receptacles not listed as hospital grade, and located in resident rooms, must be tested annually. The testing must include an evaluation of the physical integrity, the continuity of the grounding circuit, correct polarity of the hot and neutral connections, and the retention force is 4 oz or greater.

- If an outlet fails inspection and must be replace, then it must be replaced with a hospital grade outlet. NFPA 99, 6.3.3.2, 6.3.4.1.3; NFPA 70, 517.18

Hospital grade receptacles located in resident rooms must be tested after initial installation, after replacement, and after servicing of the device. Additional testing of receptacles shall be performed at intervals defined by documented performance data. NFPA 99, 6.3.4.1.1, 6.3.4.1.1

The testing must be documented and maintained for review upon request by the AHJ. NFPA 99, 6.3.4.2.1

ELECTRICAL SYSTEMS

Extension cords, surge protectors, and plug extenders cannot be used as a substitute for fixed wiring. NFPA 99, 10.2.4.1; NFPA 70, 400.8 (1), NFPA 1, 11.1.5.2, 11.1.7.6

Extension cords and surge protectors can be used for temporary power and lighting installations during the period of construction, remodeling, maintenance, repair, demolition, or similar activities. They can also be used for up to 90 days for holiday decorative lighting or similar. When extension cords and surge protectors are used, they shall be listed and suitable for the application. NFPA 99, 10.2.3.1.1; NFPA 70, 590.3, NFPA 1, 11.1.8.4

Extensions cords and surge protectors shall not run behind or through holes in the wall, ceiling, or floors. They shall not run through doorways, windows, or similar openings. They shall not be in a location subject to physical damage. NFPA 70, 400.8.

Extension cords and surge protectors shall be directly connected to an electrical receptacle (no daisy chains). NFPA 1, 11.1.6

Extension cords, surge protectors, and cords to electrical equipment should not be subject to strain or tension, and equipment and appliances shall have a strain relief provided where the cord attaches to the equipment/appliance. NFPA 99, 10.2.3.5; NFPA 70, 400.10

Patient care related electrical equipment shall be plugged directly into the wall or it can be plugged into a special purpose relocatable power tap attached to a rack, table, pedestal, or cart with conditions. NFPA 99, 10.2.3.6

Most Frequently Cited

General electrical: Junction boxes without covers; exposed wires without wire nuts/caps; outlets in non-resident care areas with cracked or missing faceplate; outlet faceplates not secured to wall; electrical panels not locked; items within 3 ft of the front of the electrical panels; spliced electrical cords; repaired power cords not completed or certified by a certified electrician; electrical devices not listed

Resident room receptacles: Missing or incomplete inspection and testing – location of device/not itemized, day/month/year of inspection, tension not numerically documented, inspector not documented; Receptacles which failed the inspection were not replaced with a hospital grade receptacle

Extension cords, plug extenders, surge protectors: Appliances and medical equipment plugged into a surge protector; extension cords in use and not temporary; daisy chains; surge protectors hanging by cord of SP or of device; plug extender in use

HEALTH CARE AUTHORITY

HAZARDOUS AREAS

HAZARDOUS AREAS

A hazardous area is an area of a structure or building that poses a degree of hazard greater than that normal to the general occupancy of the building or structure, to include areas for the storage or use of combustibles or flammables; toxic, noxious, or corrosive materials; or heat-producing appliances. NFPA 101, 3.3.21.4*, A.3.3.21.4

HAZARDOUS AREAS- EXISTING FACILITIES

Hazardous areas in existing facilities include:

- Boiler and fuel fired heater rooms,
- Central/bulk laundries larger than 100 sq. ft.,
- Paint shops,
- Repair shops,
- Rooms with soiled linen in volume exceeding 64 gallons,
- Storage rooms larger than 50 sq. ft used for storage of combustible supplies and equipment in quantities deemed hazardous by the authority having jurisdiction,
- Storage rooms larger than 100 sq ft and storing combustible materials,
- Rooms with collected trash in volume exceeding 64 gallons, 1 hr.

NFPA 101, 19.3.2.1.5

In addition, hazardous areas in existing facilities must:

- Enclose the area with a fire barrier that has a 1 hr fire resistance rating **OR** protecting the area with the automatic extinguishing systems.
- Where protection is provided with automatic extinguishing systems without fire-resistive separation, the space shall be enclosed with smoke partitions in accordance with 8.4.
- Doors shall be self-closing or automatic closing.

NFPA 19.3.2.1.1-4

HAZARDOUS AREAS- NEW FACILITIES

Hazardous areas in new facilities include the following which must have the following protection:

- Boiler and fuel fired heater rooms, 1 hr
- Central/bulk laundries larger than 100 sq. ft., 1 hr
- Physical plant maintenance shops, 1 hr
- Rooms with soiled linen in volume exceeding 64 gallons, 1 hr
- Storage rooms larger than 50 sq. ft but not exceeding 100 sq ft and storing combustible materials, Must have a self-closing door
- Storage rooms larger than 100 sq ft and storing combustible materials, 1 hr
- Rooms with collected trash in volume exceeding 64 gallons, 1 hr.

NFPA 101, Table 18.3.2.1

In addition, hazardous areas in new facilities must:

- Enclose the area with a fire barrier without windows that has a 1 hr fire resistance rating, protecting the area with the automatic extinguishing systems, **OR** both where the hazard is severe or where other specified by Chapter 18.
- Where protection is provided with automatic extinguishing systems without fire –resistive separation, the space shall be enclosed with smoke partitions in accordance with 8.4.
- Doors are required to have a fire resistance rating of a minimum of ¾ hr fire protection rating and shall be self-closing or automatic closing.

NFPA 8.7.1.1-3

Things To Know and Most Frequently Cited

There are many types of hazardous areas. They are not just the rooms on the list in Chapters 18 and 19. Remember a hazardous area is any area in your building that poses a degree of hazard greater than normal. Some hazardous areas, which are not on the list, have entire sections of NFPA 101 and 99 or entire code books dedicated to them.

Most Frequently Cited: Unsealed penetrations in hazardous areas; penetrations sealed with substance which was not approved for rated construction; storage rooms greater than 50 sq ft w/combustible items do not have a SC door or doors do not latch; doors not rated, door not latching, manual latching double doors

HEALTH CARE AUTHORITY

MEDICAL GAS TANKS AND CYLINDERS

OXYGEN TANKS AND CYLINDERS

Oxygen storage locations shall be outdoors or within an enclosed interior space. The storage areas must be constructed of noncombustible or limited combustible materials. The storage areas must be secured against unauthorized entry. NFPA 99, 11.3.2.1

Oxygen storage must be separated from combustibles by a minimum distance of 20 ft for unsprinkled areas and 5 ft in sprinkled areas. Combustibles can also be enclosed in a noncombustible cabinet that has a fire protection rating of ½ hr. NFPA 99, 11.3.2.3

Oxygen storage locations shall have mechanical or gravity ventilation. The oxygen storage room cannot vent into a means of egress. NFPA 99, 9.3.7.5; NFPA 55, 6.4, 6.15

Oxygen storage shall be planned so the cylinders can be used in the order they were received from the supplier, empty and full cylinders shall be segregated, the empty containers shall be marked to avoid confusion and delay if a full cylinder is needed in a rapid manner. NFPA 99, 11.6.5

OXYGEN TANKS AND CYLINDERS

Oxygen storage locations must contain a sign that is readable from a distance of 5 ft and displayed on the door or gate to the enclosure, which reads (at minimum), “Caution: Oxidizing Gas(es) stored within. No smoking.” NFPA 99, 11.3.4.1-2

Smoking, open flames, electric heating elements, and other sources of ignition shall be prohibited within storage locations and within 20 ft of outside storage locations. NFPA 99, 11.3.2.7

Electrical equipment is not permitted within an oxygen enclosure or within 1.5 m (5 ft) of the enclosure. NFPA 99, A.11.5.3.2

Light bulbs shall be protected and oxygen compatible. NFPA 53, 99

Oxygen cylinders shall be protected from damage by means of a cylinder stand or cart. NFPA 99, 11.6.2.3

OXYGEN TANKS AND CYLINDERS

Cylinders and hand trucks for cylinders and containers shall be constructed for the intended purpose, be self supporting, and be provided with appropriate chains or stays to retain the cylinders or containers. NFPA 11.4.3.1.1

Cylinders cannot be chained or strapped to portable or movable apparatus, such as beds. When small-size (A, B, D, or E) cylinders are in use, they shall be attached to a cylinder stand or to medical equipment designed to receive and hold compressed gas cylinders. NFPA 99, 11.3.3.3, 11.3.3.5

An oxygen tank on a crash cart is allowed.

Oxygen tanks and cylinders shall not be place in areas where they can be tipped over, interfere with foot traffic, where they are subject to damage from falling objects, where they are exposed to open flames and high temperature devices. NFPA 99, 11.7.3.2

OXYGEN TANKS AND CYLINDERS

Smoking materials (e.g., matches, cigarettes, lighters, lighter fluid, tobacco in any form) shall be removed from patients receiving respiratory therapy. Sources of open flame are not permitted in the area of oxygen administration. Sparking toys shall not be permitted in any resident care room with oxygen in use. Nonmedical appliances that have hot surfaces or sparking mechanisms shall not be permitted within the site of oxygen delivery or intentional expulsion. NFPA 99, 11.5.1.1

Equipment associated with oxygen shall be protected from contamination by means of the following specific precautions:
(1) Particles of dust and dirt shall be cleared from cylinder valve openings by slightly opening and closing the valve before applying any fitting to the cylinder valve.
(2) The high pressure valve on the oxygen cylinder shall be opened slowly before bringing the apparatus to the patient or the patient to the apparatus.
(3) An oxygen cylinder shall not be draped with any materials such as hospital gowns, masks, or caps.
(4) Cylinder-valve protection caps, where provided, shall be kept in place and be hand-tightened, except when cylinders are in use or connected for use.
(5) Valves shall be closed on all empty cylinders in storage.
NFPA 99, 11.6.2.2

OXYGEN TANKS AND CYLINDERS

Flammable or combustible aerosols or vapors (like alcohol), shall not be used in oxygen enriched atmospheres. NFPA 99, 11.5.1.2.1

Flammable and combustible liquids shall not be permitted within the site of intentional expulsion. They are also not allowed in the area of servicing. NFPA 99, 11.5.1.2.3, 11.5.1.3.3

Defective equipment must be immediately removed from service. NFPA 99, 11.5.1.3

In facilities where smoking is not prohibited, precautionary signs readable from a distance of 5 ft shall be conspicuously displayed wherever supplemental oxygen is in use and in aisles and walkways leading to such areas. The signs shall be attached to adjacent doorways, walls, or other appropriate means.
NFPA 99, 11.5.3.2.1-2

In health care facilities where smoking is prohibited, signs shall be strategically and prominently displayed at all major entrances. NFPA 11.5.3.2.3

No Smoking policies shall be strictly enforced. NFPA 99, 11.5.3.2.4

LIQUID OXYGEN

Liquid oxygen containers shall be stored, used, and operated in accordance with the manufacturer's instructions and labeling. NFPA 99, 11.7.3.1

Containers shall not be where they can be tipped over, where they interfere with foot traffic, where they are subject to damage from falling objects, and where exposed to open flames and high-temperature. NFPA 99, 11.7.3.2

Liquid oxygen base reservoir containers shall be secured by one of the following methods while in storage or use to prevent tipping over caused by contact, vibration, or seismic activity:
(1) Securing to a fixed object with one or more restraints
(2) Securing within a framework, stand, or assembly designed to resist container movement
(3) Restraining by placing the container against two points of contact
NFPA 99, 11.7.3.3

A drip pan compatible with liquid oxygen shall be provided under the liquid oxygen base reservoir container's filling and vent connections used during the filling process, unless the filling is performed on a noncombustible surface such as concrete. NFPA 99, 11.7.3.5.1.1

LIQUID OXYGEN

The liquid oxygen seller shall provide the user with documentation that includes, but is not limited to, the following:
(1) Manufacturer's instructions, including labeling for storage and use of the containers
(2) Requirements for storage and use of containers away from ignition sources, exits, electrical hazards, and high temperature devices
(3) Methods for container restraint to prevent falling
(4) Requirements for container handling
(5) Safeguards for refilling of containers
NFPA 99, 11.7.2

The seller's written instructions are intended to make the user aware of the hazards of the material and to provide recommendations that will address the location, restraint, movement, and refill of ambulatory containers when these containers are to be refilled by the user. However, the user has the responsibility to receive, read, and understand the written material regarding storage and use of liquid oxygen and the containers and equipment that are furnished by the seller. The user is responsible to see that the containers are used or maintained in accordance with the seller's instructions to ensure that they are located, maintained, handled, transported, and refilled in accordance with the requirements of NFPA 99, 11.7.3.2-5 and the manufacturer's instructions.
NFPA 99, A.11.7.3.1

TRANSFILLING OXYGEN

Transfilling of gaseous oxygen from one cylinder to another shall be in accordance with Compressed Gas Association P-2.5, *Transfilling of High Pressure Gaseous Oxygen to be Used for Respiration*. *NFPA 99, 11.5.2.2.2*

Transfilling of any gases from one cylinder to another in patient care rooms of health care facilities shall be prohibited. NFPA 99, 11.5.2.2.3

The area shall have signs indicating that transfilling is occurring and that smoking in the immediate area is prohibited. NFPA 99, 11.5.2.3.1 (3), 11.5.2.3.2 (2)

The individual transfilling the container(s) shall be properly trained in the transfilling procedures. NFPA 99, 11.5.2.3.1 (4), 11.5.2.3.2 (3)

Transfilling to liquid oxygen base reservoir containers or to liquid oxygen portable containers **over 344.74 kPa (50 psi)** shall include a designated area separated from any portion of a facility wherein patients are housed, examined, or treated by a fire barrier of 1 hour fire-resistive construction. The area must have mechanical ventilation, sprinklers, and a ceramic or concrete floor. NFPA 99, 11.5.2.3.1 (1-2)

Transfilling to liquid oxygen portable containers **at 344.74 kPa (50 psi) and under** shall be well ventilated and have noncombustible flooring. The guidelines of CGA P-2.6, *Transfilling of Low-Pressure Liquid Oxygen to be Used for Respiration*, are met. NFPA 99, 11.5.2.3.2 (1&4)

RESPIRATORY THERAPY

Oxygen-delivery equipment intended to rest on the floor shall be equipped with a base designed to render the entire assembly stable during storage, transport, and use. If casters are used, they shall conform to Class C of U.S. Government Commercial Standard 223-59, *Casters, Wheels, and Glides for Hospital Equipment*. *NFPA 99, 11.4.2.1*

Humidification or reservoir jars containing liquid to be dispersed into a gas stream shall be made of transparent or translucent material, shall be impervious to contained solutions and medications, and shall allow observation of the liquid level and consistency. NFPA 99, 11.4.2.4

Humidifiers and nebulizers shall be equipped with provisions for overpressure relief or alarm if the flow becomes obstructed. NFPA 99, 11.4.2.5

Humidifiers and nebulizers shall be incapable of tipping or shall be mounted so that any tipping or alteration from the vertical shall not interfere with function or accuracy. NFPA 99, 11.4.2.6

OXYGEN POLICIES AND PROCEDURES

Administrative authorities of health care organizations shall provide policies and procedures for safe practices on oxygen operation and management. NFPA 99, 11.6.1

Policies for enforcement shall include the following:
(1) Regulations for the storage and handling of cylinders and containers of oxygen and nitrous oxide
(2) Prompt evaluation of all signal warnings and all necessary measures taken to re-establish the proper functions of the medical gas and vacuum systems
(3) Organizational capability and resources to cope with a complete loss of any medical gas or vacuum system
(4) Successful completion of all tests required for vacuum systems prior to the use of any medical gas or vacuum piping system for patient care
(5) Locations intended for the delivery vehicle delivering cryogenic liquid to bulk cryogenic liquid systems to remain open and not be used for any other purpose (e.g., vehicle parking, storage of trash containers).
NFPA 99, 11.6.1.3

MAINTENANCE OF MEDICAL GAS EQUIPMENT

Defective equipment shall be immediately removed from service. NFPA 99, 11.5.1.3.1, 11.5.1.3.2

Areas designated for the servicing of oxygen equipment shall be clean and free of oil, grease, or other flammable substances. Oxygen cylinders, containers, and associated equipment shall be protected from contact with oil or grease NFPA 99, 11.5.1.2.2, 11.5.1.3.3, 11.6.2.1

Service manuals, instructions, and procedures provided by the manufacturer shall be used in the maintenance of equipment. NFPA 99, 11.5.1.3.4

A scheduled preventive maintenance program shall be followed. NFPA 99, 11.5.1.3.5

Equipment shall be serviced only by personnel trained in the maintenance and operation of the equipment. NFPA 99, 11.5.2.1.4

STAFF TRAINING ON MEDICAL GASES

Personnel concerned with the application and maintenance of medical gases, and those who handle medical gases and cylinders, shall be trained on the risks associated with their handling and use. This training shall occur at hire and annually thereafter. NFPA 99, 11.5.2.1

Training procedures shall also include the following:
(1) Maintenance programs in accordance with the manufacturer's recommendations for the piped gas system
(2) Use and transport of equipment and the proper handling of cylinders, containers, hand trucks, supports, and valve protection caps
(3) Verification of gas content and mechanical connection specificity of each cylinder or container prior to placing it into service
NFPA 99, 11.6.1.2

Health care facilities shall provide programs of continuing education for their personnel. Continuing education programs shall include periodic review of safety guidelines and usage requirements for medical gases and their cylinders. NFPA 99, 11.5.2.1.2, 11.5.2.1.3

Things To Know and Most Frequently Cited

Code regarding piped medical gas can be found in NFPA 99, Chapter 5.

Most frequently cited:

Oxygen tanks and cylinder use and storage: Oxygen storage room not locked; unsealed penetrations in the oxygen storage room walls; no signage/incorrect signage on the door; full tanks mixed with empty tanks; tanks unsecured, combustible items within 5 feet of stored tanks; oxygen tank strapped to gurney with tie straps; oxygen tanks in smoking area; smoking materials within the area of oxygen administration; ambulatory liquid oxygen tanks not secured.

Staff training: No documentation of initial or annual oxygen storage training for all staff concerned with the application, maintenance, and handling of medical gases and their tanks and cylinders; training not on the risk associated with handling and use oxygen tanks and cylinders.

HEALTH CARE AUTHORITY

KITCHEN

KITCHEN - FIRE SUPPRESSION

Fire-extinguishing equipment shall be provided for the protection of grease removal devices, hood exhaust plenums, exhaust duct systems, and cooking equipment that produces grease-laden vapors and that might be a source of ignition. NFPA 96, 10.1.1, 10.1.2*

Fire-extinguishing equipment shall include both automatic fire-extinguishing systems as primary protection and portable fire extinguishers as secondary backup. NFPA 96, 10.2.1

Discharge nozzles for the suppression system shall be of brass, stainless steel, or other corrosion-resistant materials, or be protected inside and out against corrosion. The discharge nozzles shall be made of noncombustible materials and shall withstand the expected fire exposure without deformation. NFPA 17A, 4.3.1.2 , 4.3.1.3

All discharge nozzles shall be provided with caps or other suitable devices to prevent the entrance of grease vapors, moisture, or other foreign materials into the piping. NFPA 17A, 4.3.1.5

The protection device shall blow off, blow open, or blow out upon agent discharge. NFPA 17A, 4.3.1.6

KITCHEN – FIRE SUPPRESSION

At least one manual actuation device shall be located a minimum of 10 ft and a maximum of 20 ft from the protected kitchen appliance(s). It shall be mounted between 42 in. and 48 in. above the floor, be readily accessible in the event of a fire, be located in a path of egress, and clearly identify the hazard protected. NFPA 96, 10.5.1, NFPA 17A, 4.4.2

Manual activation using a cable-operated pull station shall not require more than 40 lb of force, with a pull movement not to exceed 14 in. to activate the automatic fire-extinguishing equipment. NFPA 96, 10.5.1.2

Instructions for manually operating the fire extinguishing system shall be posted conspicuously in the kitchen and shall be reviewed with employees by the management. NFPA 96, 11.1.4

Upon activation of an automatic fire-extinguishing system, an audible alarm or visual indicator shall be provided at the annunciator panel/control panel and shall activate the fire alarm signaling system. NFPA 96, 10.6.1, NFPA 17A, 5.2.1.8, 5.2.1.9, 10.6.2

KITCHEN – FIRE SUPPRESSION

Cooking equipment shall not be operated while its fire-extinguishing system is nonoperational or impaired. NFPA 96, 11.1.6

Where the fire-extinguishing system is nonoperational or impaired, the systems shall be tagged as noncompliant, and the owner or owner's representative shall be notified in writing of the impairment. NFPA 96, 11.1.6.1

A Class K portable fire extinguishers shall be installed and maintained in kitchen cooking areas in accordance with NFPA 10 and shall be specifically listed for such use. NFPA 96, 10.10.1*, 10.10.2

A placard shall be conspicuously placed near each extinguisher that states that the fire protection system shall be activated prior to using the fire extinguisher. NFPA 96, 10.2.2

The language and wording for the placard shall be approved by the authority having jurisdiction. NFPA 96, 10.2.2.1

Other fire extinguishers in the kitchen area shall be installed and maintained in accordance with NFPA 10. NFPA 96, 10.10.3, 10.10.4

KITCHEN - EQUIPMENT

Cooking equipment used in processes producing smoke or grease-laden vapors shall be equipped with an exhaust system. The inside of the hood shall be sealed or otherwise made grease tight. NFPA 96, 4.1.1, 5.1.4

Exhaust systems shall be operated whenever cooking equipment is turned on. NFPA 96, 11.1.1

Filter-equipped exhaust systems shall not be operated with filters removed. NFPA 96, 11.1.2

Cooking equipment shall not be operated while the exhaust system is nonoperational or impaired. NFPA 96, 11.1.6

Where exhaust system is nonoperational or impaired, the systems shall be tagged as noncompliant, and the owner or owner's representative shall be notified in writing of the impairment. NFPA 96, 11.1.6.1

All airflows shall be maintained. NFPA 96, 4.1.4

KITCHEN - EQUIPMENT

Listed grease filters, listed baffles, or other listed grease removal devices for use with commercial cooking equipment shall be provided. NFPA 96, 6.1.1

Grease filters shall be constructed of steel or listed equivalent material, and they shall be of rigid construction that will not distort or crush under normal operation, handling, and cleaning conditions. NFPA 96, 6.2.3.1, 6.2.3.2

Grease filters shall be arranged so that all exhaust air passes through the grease filters. NFPA 96, 6.2.3.3

Grease filters shall be easily accessible and removable for cleaning. NFPA 96, 6.2.3.4

Grease filters shall be installed at an angle not less than 45 degrees from the horizontal, and they shall be oriented correctly. NFPA 96, 6.2.3.5, 6.2.5

KITCHEN - EQUIPMENT

Grease filters shall be equipped with a grease drip tray beneath the lower edges of the filters, baffles, or other grease removal device. NFPA 96, 6.2.4.1

Grease drip trays shall be kept to the minimum size needed to collect grease, and it must be pitched to drain into an enclosed metal container having a capacity not exceeding 1 gal. NFPA 96, 6.2.4.2, 6.2.4.3

All deep-fat fryers shall be installed with at least 16 in. space between the fryer and surface flames from adjacent cooking equipment. NFPA 96, 12.1.2.4

Lighting units in hoods shall be listed for use over commercial cooking appliances and installed in accordance with the terms of their listing. NFPA 96, 9.2.3.1

All electrical equipment shall be installed in accordance with *NFPA 70*. NFPA 96, 9.2.4*

All cooking appliances shall be listed and installed in accordance with the terms of their listings and the manufacturer's instructions. NFPA 96, 12.1.2.1

KITCHEN - EQUIPMENT

Cooking appliances requiring protection shall not be moved, modified, or rearranged without prior re-evaluation of the fire-extinguishing system by the system installer, servicing agent, or as allowed by the design of the fire extinguishing system. NFPA 96, 12.1.2.2*

The fire-extinguishing system shall not require re-evaluation if the cooking appliances are moved for the purposes of maintenance and cleaning, as long as the appliances are returned to approved design location prior to cooking operations. NFPA 96, 12.1.2.3

An approved method shall be provided that will ensure that the appliance is returned to an approved design location. NFPA 96, 12.1.2.3.1

The following equipment shall be kept in working condition: Cooking equipment, hoods, ducts, fans, fire extinguishing equipment, and special effluent or energy control equipment. NFPA 96, 4.1.3

Maintenance and repairs shall be performed on all components at intervals necessary to maintain good working condition. NFPA 96, 4.1.3.1

KITCHEN- INSPECTIONS

Maintenance of the fire-extinguishing systems and listed exhaust hoods containing a constant or fire-activated system that is listed to extinguish a fire in the grease removal devices, hood exhaust plenums, exhaust duct, and cooking equipment shall be made by properly trained, qualified, and certified person(s) acceptable to the authority having jurisdiction at least every 6 months. NFPA 96, 11.2.1*, NFPA 17A, 7.3

All actuation and control components, including remote manual pull stations, mechanical and electrical devices, detectors, and actuators, shall be tested for proper operation during the inspection in accordance with the manufacturer's procedures. NFPA 96, 11.2.2*

Fusible links of the metal alloy type and automatic sprinklers of the metal alloy type shall be replaced at least semiannually. If they are made of something other than metal alloy, then they can be inspected and cleaned or replaced annually. NFPA 96, 11.2.4*, 11.2.6, 11.2.7

The year of manufacture and the date of installation of the fusible links shall be marked on the system inspection tag. It shall be signed or initialed by the installer. NFPA 96, 11.2.5, 11.2.5.1

KITCHEN - INSPECTIONS

The entire exhaust system shall be inspected for grease buildup by a properly trained, qualified, and certified person(s) acceptable to the authority having jurisdiction and in accordance with the Schedule of Inspection for Grease Build-up. NFPA 96, 11.4*

Schedule of Inspection for Grease Buildup:
Quarterly: Systems serving high-volume cooking operations, such as 24-hour cooking, charbroiling, or wok cooking;
Semi-annually: Systems serving moderate-volume cooking operations;
NFPA 96, Table 11.4

Upon inspection, if the exhaust system is found to be contaminated with deposits from grease-laden vapors, the contaminated portions of the exhaust system shall be cleaned by a properly trained, qualified, and certified person(s) acceptable to the authority having jurisdiction. NFPA 96, 11.6.1

After cleaning or inspection is completed, the exhaust cleaning company and the person performing the work at the location shall provide the owner of the system with:

- A certificate showing the name of the servicing company, the name of the person performing the work, and the date of inspection or cleaning
- A written report that also specifies areas that were inaccessible or not cleaned.

These items shall be maintained on the premises and available to the authority having jurisdiction upon request. NFPA 96, 11.6.13-15

KITCHEN - INSPECTIONS

Inspection and servicing of the cooking equipment shall be made at least annually by properly trained and qualified persons. NFPA 96, 11.7.1

Cooking equipment that collects grease below the surface, behind the equipment, or in cooking equipment flue gas exhaust, such as griddles or charbroilers, shall be inspected and, if found with grease accumulation, cleaned by a properly trained, qualified, and certified person acceptable to the authority having jurisdiction. NFPA 96, 11.7.2

KITCHEN - INSPECTIONS

The Owner's Inspection: On a monthly basis, an inspection shall be conducted in accordance with the manufacturer's listed installation, maintenance manual, or the owner's manual. NFPA 17A, 7.2.1

At a minimum, this "quick check" or inspection shall include verification of the following:
(1) The extinguishing system is in its proper location.
(2) The manual actuators are unobstructed.
(3) The tamper indicators and seals are intact.
(4) The maintenance tag or certificate is in place.
(5) No obvious physical damage or condition exists that might prevent operation.
(6) The pressure gauge(s), if provided, shall be inspected physically or electronically to ensure it is in the operable range.
(7) The nozzle blow-off caps, where provided, are intact and undamaged.
(8) Neither the protected equipment nor the hazard has not been replaced, modified, or relocated.
NFPA 17A, 7.2.2

If any deficiencies are found, the appropriate corrective action shall be taken immediately. NFPA 17A, 7.2.3

KITCHEN - INSPECTIONS

Hydrostatic Testing: The following parts of wet chemical extinguishing systems shall be subjected to a hydrostatic pressure test at intervals not exceeding 12 years:
(1) Wet chemical containers
(2) Auxiliary pressure containers
(3) Hose assemblies
There are exceptions for this inspection.
NFPA 17A, 7.5.1

The test procedure shall be in accordance with the manufacturer's detailed written hydrostatic test instructions. NFPA 17A, 7.5.2.2

Things To Know and Most Frequently Cited

Where residential cooking equipment is used for food warming or limited cooking, the equipment shall not be required to be protected in accordance with NFPA 96, and the presence of the equipment shall not require the area to be protected as a hazardous area. NFPA 101, 18.3.2.5.2*, 19.3.2.5.2*

Where cooking facilities are protected in accordance with 9.2.3 [NFPA 96], the presence of the cooking equipment shall not cause the room or space housing the equipment to be classified as a hazardous area with respect to the requirements of 18.3.2.1, and the room or space shall not be permitted to be open to the corridor. NFPA 101, 18.3.2.5.5*, 19.3.2.5.5*

Most frequently cited:
Suppression nozzle missing blow off cap/disk; Suppression nozzles not covering appliances; drip pan missing from range hood; exhaust fan not on during cooking; missing monthly owner inspections; missing annual commercial equipment inspections; suppression system not tested to the fire alarm, missing semi-annual cleaning services.

HEALTH CARE AUTHORITY

DESIGNATED SMOKING AREAS

DESIGNATED SMOKING AREAS

Smoking regulations shall be adopted and shall include not less than the following provisions:

- Smoking shall be prohibited in any room, ward, or individual enclosed space where flammable liquids, combustible gases, or oxygen is used or stored **and in any other hazardous location**, and such areas shall be posted with signs that read NO SMOKING or shall be posted with the international symbol for no smoking.
- In health care occupancies where smoking is prohibited and signs are prominently placed at all major entrances, secondary signs with language that prohibits smoking shall not be required.
- Smoking by patients classified as not responsible shall be prohibited, unless the resident is under direct staff supervision.
- Ashtrays of noncombustible material and safe design shall be provided in all areas where smoking is permitted.
- Metal containers with self-closing cover devices into which ashtrays can be emptied shall be readily available to all areas where smoking is permitted.

NFPA 101, 18.7.4*, 19.7.4*

Ashtray: A receptacle for tobacco ashes and for cigar and cigarette butts; A small dish used for cigarettes and cigars and their ashes.

Things To Know and Most Frequently Cited

There have not been any S&C or QSO Memos from CMS regarding vaping. The main danger with vaping is in regard to the batteries exploding. It is important to remember, sparking appliances (exploding batteries) should not be in the vicinity where oxygen is administered. Facilities should address vaping and safe charging practices in their smoking policies.

Most frequently cited:

Tower type disposal containers present in designated smoking areas; metal, self-closing can not present in the designated smoking area; trash mixed with cigarette waste (in metal, SC can or in trash can); excessive cigarette waste on ground (in designated smoking areas and in non-designated areas); staff smoking in non-designated areas; failure to post No Smoking signs in areas where smoking is prohibited (near gas lines, generators, propane tanks, etc); plastic bags in the cigarette waste can.

OTHER HAZARDS

ALCOHOL BASED HAND RUBS

Alcohol-based hand-rub dispensers shall be protected in accordance with NFPA 30, Flammable and Combustible Liquids Code, unless **all of the following** conditions are met:

- The dispenser shall not dispense more solution than the amount required for hand hygiene consistent with label instructions.
- The alcohol-based hand-rub solution shall not exceed 95 percent alcohol content by volume.
- Corridors shall be at least 6 ft wide.
- The maximum individual dispenser fluid capacity shall be 0.32 gallons for dispensers in rooms, corridors, and areas open to the corridor and 0.53 gallons in suites of rooms.
- Storage of quantities greater than 5 gallons in a single smoke compartment shall meet the requirements of NFPA 30, Flammable and Combustible Liquids Code. The total capacity in a single smoke compartment cannot exceed 10 gallons.
- Dispenser shall be separated from each other by 48 inches, horizontally.
- The dispenser cannot be installed within 1 inch of an ignition source, to include above, beside (horizontal), or underneath.
- The dispenser shall not release its contents except when the dispenser is activated, either manually or automatically by touch-free activation. Automatic activation shall occur only when an object is placed within 4 in. of the sensing device.
- An object left within the activation zone shall not cause more than one activation.

NFPA 101, 18.3.2.6*, 19.3.2.6* (The above list includes on the most common. It is not the complete list.)

SPACE HEATERS

Portable space heating devices shall be prohibited in all health care occupancies, unless **both** of the following criteria are met:
(1) Such devices are used only in non-sleeping staff and employee areas.
(2) The heating elements of such devices do not exceed 212°F.
NFPA 101, 18.7.8, 19.7.8

Approved, suspended unit heaters shall be permitted in locations other than means of egress and patient sleeping areas, provided that **both** of the following criteria are met:
(a) Such heaters are located high enough to be out of the reach of persons using the area.
(b) Such heaters are equipped with the safety features which immediately stop the flow of fuel and shut down the equipment in case of either excessive temperature or ignition failure
NFPA 101, 18.5.2.3, 18.5.2.2 (2), 19.5.2.3, 19.5.2.2 (2)

COMBUSTIBLE DECORATIONS

Combustible decorations shall be prohibited in any health care occupancy, unless one of the following criteria is met:

- They are flame-retardant or are treated with approved fire-retardant coating that is listed and labeled for application to the material to which it is applied.
- *The decorations, such as photographs, paintings, and other art, are attached directly to the walls, ceiling, and non-fire-rated doors. The decorations cannot interfere with the latching operation of the door. The decorations cannot exceed more than 30 percent of the wall, ceiling, and door areas inside any room or space or more than 50 percent of the wall, ceiling, and door areas inside patient sleeping rooms (up to four persons) of a smoke compartment that is protected throughout by an approved supervised automatic sprinkler.

  - The percentage of decorations should be measured in comparison to the area of any wall or ceiling, not the total of all walls, ceilings, and doors in the space.

  - The door is considered part of the wall.

  - The decorations must be located such that they do not interfere with the operation of any door, sprinkler, smoke detector, or any other life safety equipment.
- *They are decorations, such as photographs and paintings, in such limited quantities that a hazard of fire development or spread is not present. (Existing)

NFPA 101, **18.7.5.6, 19.7.5.6** (The above list includes on the most common. It is not the complete list.)

ACCESS TO ALL AREAS

Total Concept: All health care facilities shall be designed, constructed, maintained, and operated to minimize the possibility of a fire emergency requiring the evacuation of occupants. NFPA 101, 18.1.1.3, 19.1.1.3

Because the safety of health care occupants cannot be ensured adequately by dependence on evacuation of the building, their protection from fire shall be provided by appropriate arrangement of facilities; adequate, trained staff; and development of operating and maintenance procedures composed of the following:
(1) Design, construction, and compartmentation
(2) Provision for detection, alarm, and extinguishment
(3) Fire prevention procedures and planning, training, and drilling programs for the isolation of fire, transfer of occupants to areas of refuge, or evacuation of the building.
NFPA 101, 18.1.1.3.2, 19.1.1.3.2

Things To Know and Most Frequently Cited

There are more hazards than this, but these are the most common other cited during the last 12 -24 months.

Most frequently cited:
Hand Sanitizers: Located within 1 in of an ignition source.
Space Heaters: No documentation to show the highest temperature of the heating elements; space heaters on and unattended.
Combustible Decorations: Candles with wicks, excessive decorations, decorations on sprinklers, decorations lining entire hallways, decorations across the span of a room or corridor
Access to All Areas: Staff do not know how to access areas in case of an emergency, to include administrative offices, kitchens, beauty shops, etc.

HEALTH CARE AUTHORITY

FIRE DRILLS

FIRE DRILLS

Drills shall be conducted quarterly on each shift to familiarize facility personnel (nurses, interns, maintenance engineers, administrative staff, etc.) with the signals and emergency action required under varied conditions. NFPA 101, 18.7.1.6, 19.7.1.6

Emergency egress and relocation drills shall be designed in cooperation with the local authorities. NFPA 101, 4.7.1

19.7.1.4* Fire drills in health care occupancies shall include the transmission of a fire alarm signal and simulation of emergency fire conditions. NFPA 101, 18.7.1.4*, 19.7.1.4*

When drills are conducted between 9:00 p.m. and 6:00 a.m., a coded announcement shall be permitted to be used instead of audible alarms. NFPA 101, 18.7.1.7, 19.7.1.7

Fire drills should be scheduled on a random basis to ensure that personnel in health care facilities are drilled not less than once in each 3-month period. Drills should consider the ability to move patients to an adjacent smoke compartment. Relocation can be practiced using simulated patients or empty wheelchairs. NFPA 101, A.18.7.1.4, A.19.7.1.4

FIRE DRILLS

Emergency egress and relocation drills shall be held with sufficient frequency to familiarize occupants with the drill procedure and to establish conduct of the drill as a matter of routine. Drills shall include suitable procedures to ensure that all persons subject to the drill participate. NFPA 101, 4.7.2*

When conducting drills, emphasis shall be placed on orderly evacuation rather than on speed. NFPA 101, 4.7.3

Drills shall be held at expected and unexpected times and under varying conditions to simulate the unusual conditions that can occur in an actual emergency. NFPA 101, 4.7.4*

- Fire is always unexpected. If the drill is always held in the same way at the same time, it loses much of its value. When, for some reason during an actual fire, it is not possible to follow the usual routine of the emergency egress and relocation drill to which occupants have become accustomed, confusion and panic might ensue. Drills should be carefully planned to simulate actual fire conditions. Not only should drills be held at varying times, but different means of exit or relocation areas should be used, based on an assumption that fire or smoke might prevent the use of normal egress and relocation avenues. NFPA 101, A.4.7.4

FIRE DRILLS

Drill participants shall relocate to a predetermined location and remain at such location until a recall or dismissal signal is given. Infirm or bedridden patients shall not be required to be moved during drills to safe areas or to the exterior of the building. NFPA 101, 4.7.5, 18.7.1.5, 19.7.1.5

A written record of each drill shall be completed by the person responsible for conducting the drill and maintained in an approved manner. NFPA 101, 4.7.6*

The written record of the fire drills should include such details as the date, time, participants, location, and results of that drill. NFPA 101, A.4.7.6

Most Frequently Cited

No simulated conditions during drills; simulated conditions did not vary; fire drills occurred during the same o'clock hour in the 12 month period; fire alarm not sounded outside the quiet hours (9p-6a); drills not conducted quarterly across all shifts; missing or incomplete fire drill records; no time of drill documented; no am/pm documented

Other Frequently Cited

Missing propane tank inspections; Vehicles in fire lane; fire lane blocked by mounds of dirt; missing boiler inspections

Non-working exhaust fans in bathrooms and chemical/cleaning storage closets.

Missing elevator inspection and testing records; excessive debris in the elevator pit.

Inspection documentation missing information:

- All inspection records should contain at least the following basic : Date of inspection, what was inspected, the criteria of the inspection, the results of the inspection, name of the inspector, any corrections.
- All inspection records should contain enough information to be 100% verifiable. This means, it should be clear the system was inspected according to Code requirements.
- Some inspection records have very specific information that must be included, and the information is outlined in the Code. Examples: Fire alarm inspections, Sprinkler system inspections, etc.

Contact Information

For any questions regarding LSC concerns or any questions, please contact me at the following:

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Thank you for all you do to keep New Mexico residents health and safe!