

Fire and Life Safety for Healthcare Facilities



**MINNESOTA SAFETY COUNCIL
MINNESOTA SAFETY AND HEALTH CONFERENCE
MAY 6, 2015**

**GARY SCHROEDER
HEALTH CARE FIRE INSPECTOR
MINNESOTA STATE FIRE MARSHAL DIVISION**

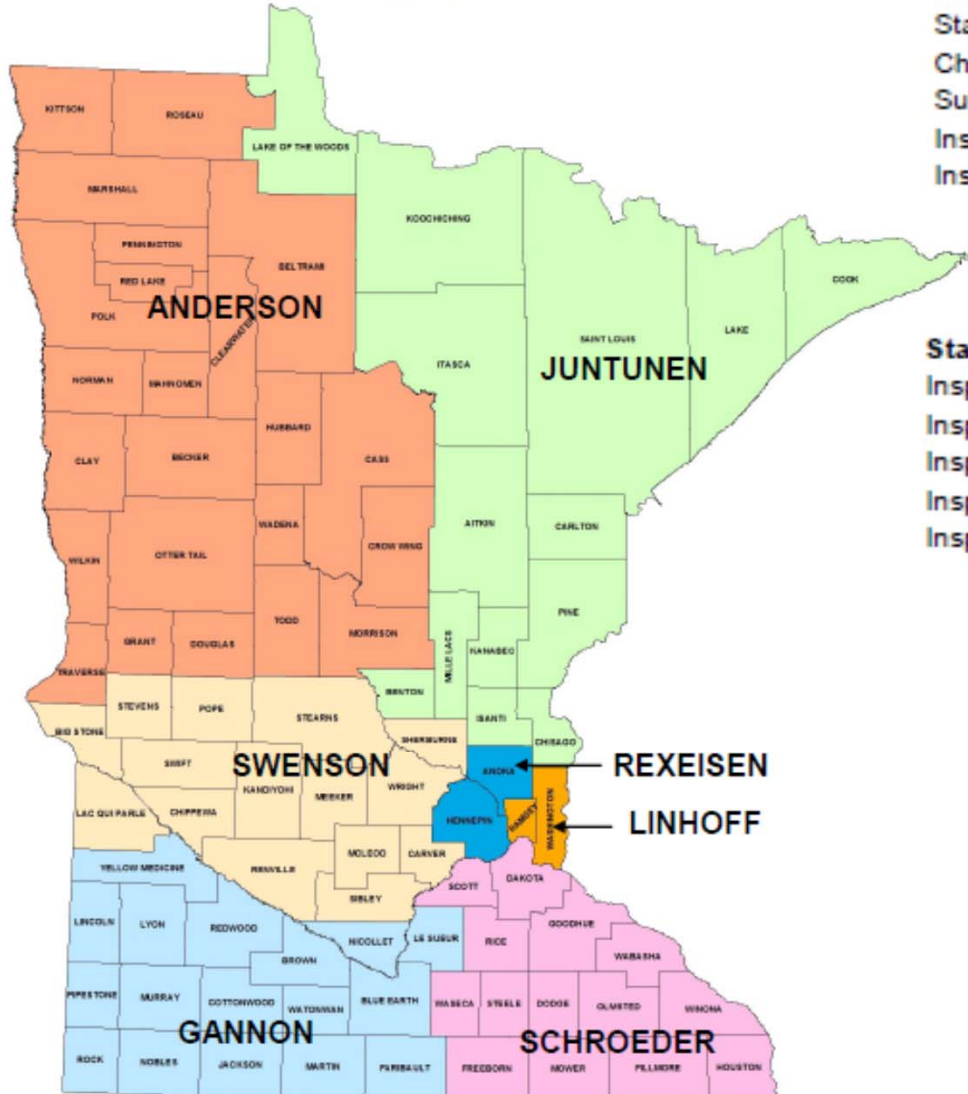
WEBSITE: [HTTPS://DPS.MN.GOV/DIVISIONS/SFM/PROGRAMS-SERVICES/INSPECTIONS/PAGES/HEALTH-CARE-INSPECTION.ASPX](https://dps.mn.gov/divisions/sfm/programs-services/inspections/pages/health-care-inspection.aspx)





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State Fire Marshal

A Division of the Minnesota Department of Public Safety

Search this site...

- Cities Issuing Indoor Fireworks Display Permits
- Explosives
- Firefighter License Plates / Red Lamp Permit
- Fireworks
- Fire Investigation
- Fire Sprinklers
- Fire Standard Compliant Cigarettes (FSC)
- Governors Council Fire Prevention and Control
- Honor Guard
- Inspections
- Quick Response Newsletter
- Responder Safety
- Shared Services
- Sprinkler Examination Schedule
- Youth Firesetting Prevention & Intervention

- Healthcare Inspection**
- School Inspection
- Day Care / Foster Care
- Correctional Facility Inspections

HEALTHCARE INSPECTIO



Healthcare Inspection Territory

[Healthcare Inspection Territory Map](#)

Life Safety Code Project

[Life Safety Code Documentation Project](#)

Important Issues

[2000 Edition National Fire Protection Association \(NFPA\) 101® Life Safety Code \(LSC\) Waivers.](#)
[Overview of the 2786R booklet provided by Region V CMS "So That's What They Look For" \(9/3/10\)](#)
[Elevator Shunt Trip - Fire Alarm Requirements](#)

Definitions



CMS – Center for Medicare and Medicaid

LSC – NFPA 101 Life Safety Code

MSFC – 2007 MN State Fire Code

NFPA – National Fire Protection Association

SFMD – State Fire Marshal Division



Objective



- Upcoming Code changes
- Fire and Life Safety for Healthcare Facilities
- Fire Drills
- Reporting unwanted fires
- Oxygen Storage
- Life Safety Systems testing/inspection
- Deficiencies cited
- During Construction



Upcoming Code Changes



- At this time we do not know when the following codes will be adopted:
 - 2012 NFPA 101 – LSC (CMS)
 - 2015 MSFC
- When we know you will know



Documentation



REMEMBER

If you didn't document it.

It didn't happen!



Fire and Life Safety for Healthcare Facilities



- It is every employees responsibility to ensure that patients, visitors and other staff have a safe environment
- Fire extinguishers are accessible at all times
- Exits are accessible at all times
- Report fire doors and smoke barrier doors that are not operating correctly
- Participate in fire drills – R.A.C.E & P.A.S.S



Fire and Life Safety for Healthcare Facilities



- Ensure required testing is done on Life Safety systems
- Fire alarm systems
- Sprinkler systems
- Kitchen Hood fire protection systems
- Medical Gas systems
- Fire Extinguishers – monthly & annually
- Emergency Generator
- Fire / Smoke Dampers
- Penetrations – Fire and Smoke Barrier walls



Fire Drills



- **2000 NFPA 101 18/19.7.1.2*** Fire drills in health care occupancies shall include the transmission of a fire alarm signal and simulation of emergency fire conditions. Drills shall be conducted quarterly on each shift to familiarize facility personnel (nurses, interns, maintenance engineers, and administrative staff) with the signals and emergency action required **under varied conditions**.
- When drills are conducted between 9:00 p.m. (2100 hours) and 6:00 a.m. (0600 hours), a coded announcement shall be permitted to be used instead of audible alarms.
- ***Exception:*** *Infirm or bedridden patients shall not be required to be moved during drills to safe areas or to the exterior of the building.*



Fire Safety Plan



- **2000 NFPA 101 - 18/19.7.2.2** A written health care occupancy fire safety plan shall provide for the following:
 - (1) Use of alarms
 - (2) Transmission of alarm to fire department
 - (3) Response to alarms
 - (4) Isolation of fire
 - (5) Evacuation of immediate area
 - (6) Evacuation of smoke compartment
 - (7) Preparation of floors and building for evacuation
 - (8) Extinguishment of fire



Unwanted Fire at Your Facility



- What is required when you have a **UNWANTED FIRE** at your facility



Unwanted Fire - Definition



- 2007 MN State Fire Code (MSFC) 202 **UNWANTED FIRE.**
- A fire not used for cooking, heating or recreational purposes or one not incidental to the normal operations of the property.



Fire Chief - Definition



- The chief officer of the fire department serving the jurisdiction or the chief's authorized representatives. For purposes of enforcing this code, the term fire chief also includes the state fire marshal and the state fire marshal's representatives.



Fire Code Official - Definition



- The fire chief or other designated authority charged with the administration and enforcement of the code, or a duly authorized representative.



Reporting a Unwanted Fire



- **401.3 Emergency forces notification.** In the event an unwanted fire occurs on a property, the owner or occupant shall immediately report such condition to the fire department. Building employees and tenants shall implement the appropriate emergency plans and procedures. No person shall, by verbal or written directive, require any delay in the reporting of a fire to the fire department.



Reporting a Unwanted Fire



- The fire department that is mentioned in 401.3 includes the Fire Chief and the State Fire Marshal
- You shall contact the local fire department and the State Fire Marshal even if the fire is extinguished



Oxygen - Storage



1999 NFPA 99 - 8-3.1.11.2 Storage for nonflammable gases less than 3000 ft³ (85 m³).

(c) Oxidizing gases such as oxygen and nitrous oxide shall be separated from combustibles or incompatible materials by either:



Oxygen - Storage



1. A minimum distance of 20 ft (6.1 m), or
2. A minimum distance of 5 ft (1.5 m) if the entire storage location is protected by an automatic sprinkler system designed in accordance with NFPA 13, *Standard for the Installation of Sprinkler Systems*, or



Oxygen - Storage



3. An enclosed cabinet of noncombustible construction having a minimum fire protection rating of one-half hour for cylinder storage. An approved flammable liquid storage cabinet shall be permitted to be used for cylinder storage.



Circuit Breaker Panels



Circuit Breaker Panels



1999 NFPA 70 - 110-26. Spaces About Electrical Equipment. 600 V or less

Depth of Working Space – 3 feet

Width of Working Space – 30 inches

Height of Working Space - The work space shall be clear and extend from the grade, floor, or platform to the height required by Section 110-26(e). **Headroom.** The minimum headroom of working spaces about service equipment, switchboards, panel boards, or motor control centers shall be 6-1/2 ft. (1.98 m). Where the electrical equipment exceeds 6-1/2 ft. (1.98 m) in height, the minimum headroom shall not be less than the height of the equipment.



Generator Logs



- **6-4.2***Generator sets in Level 1 and Level 2 service shall be exercised at least once monthly, for a minimum of 30 minutes, using one of the following methods:
- (a) Under operating temperature conditions or at not less than 30 percent of the EPS nameplate rating
- (b) Loading that maintains the minimum exhaust gas temperatures as recommended by the manufacturer



Generator Logs



- **6-4.4** Time delays shall be set as follows:
- (a) Time delay on start: 1 second minimum
Exception: Gas turbine cycle: 0.5 second minimum.
- (b) Time delay on transfer to emergency: no minimum required
- (c) Time delay on restoration to normal: 5 minutes minimum (see A-4-2.4.7)
- (d) Time delay on shutdown: 5 minutes minimum



Annual Fire Alarm Reports



- Number of smoke detectors installed vs number tested or sensitivity tested
- Sensitivity report does not contain:
 - Range of each model of smoke detector
 - If the detector passed/failed
- All information that is required by 1999 NFPA 72 7-5.2.2



Fire Sprinkler Annual Report



- The items noted in report need of repair, replacement and etc. not being done or if done no supporting documentation



1998 NFPA 25



- **2-3.2* Gauges.** Gauges shall be replaced every 5 years or tested every 5 years by comparison with a calibrated gauge. Gauges not accurate to within 3 percent of the full scale shall be recalibrated or replaced.



1998 NFPA 25



- **2-4.1.4** A supply of at least six spare sprinklers shall be stored in a cabinet on the premises for replacement purposes. The stock of spare sprinklers shall be proportionally representative of the types and temperature ratings of the system sprinklers. A minimum of two sprinklers of each type and temperature rating installed shall be provided. The cabinet shall be so located that it will not be exposed to moisture, dust, corrosion, or a temperature exceeding 100°F (38°C).

Exception: Where dry sprinklers of different lengths are installed, spare dry sprinklers shall not be required, provided that a means of returning the system to service is furnished.



1998 NFPA 25



- **9-4.2 Check Valves.**
- **9-4.2.1 Inspection.** Valves shall be inspected internally every 5 years to verify that all components operate properly, move freely, and are in good condition.
- **10-2.2* Obstruction Prevention.** Systems shall be examined internally for obstructions where conditions exist that could cause obstructed piping. If the condition has not been corrected or the condition is one that could result in obstruction of piping despite any previous flushing procedures that have been performed, the system shall be examined internally for obstructions every 5 years. This investigation shall be accomplished by examining the interior of a dry valve or preaction valve and by removing two cross main flushing connections.



During Construction



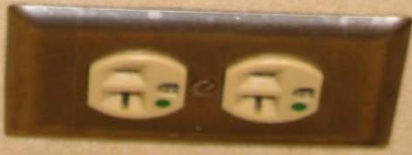
- **2000 NFPA 241 - 8.6.2 Temporary Separation Walls.**
- **8.6.2.1** Protection shall be provided to separate an occupied portion of the structure from a portion of the structure undergoing alteration, construction, or demolition operations when such operations are considered as having a higher level of hazard than the occupied portion of the building.
- **8.6.2.2** Walls shall have at least a 1-hour fire resistance rating.
- **8.6.2.3** Opening protectives shall have at least a 45-minute fire protection rating.
- **8.6.2.4*** Nonrated walls and opening protectives shall be permitted when an approved automatic sprinkler system is installed.
- <https://dps.mn.gov/divisions/sfm/programs-services/Documents/HealthCare/CleanConstruction9>



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WRAP UP



QUESTIONS ?



Documentation



REMEMBER

If you didn't document it.

It didn't happen!



Minnesota Safety and Health Conference

THANK YOU!

