



**STATE OF IOWA
DEPARTMENT OF PUBLIC SAFETY**

STATE FIRE MARSHAL DIVISION

MEMORANDUM

TO: Whom it May Concern

FROM: Iowa State Fire Marshal Division

DATE: October 28, 2016

SUBJ: Emergency Evacuation Plan Guidance

The purpose of this memorandum identifies emergency evacuation plan guidance in accordance with the 2012 Life Safety Code.

NFPA Standard: 2012 NFPA 101, 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.

NFPA Standard: 2012 NFPA 101, 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

- a. Staff should understand basic features of the building
- b. Building materials and construction design
- c. Doors in facilities
- d. Exiting components/locking devices
- e. Smoke compartments
- f. Location and use of equipment for transporting patients between fire/smoke compartments
- g. Sprinkler systems
- h. Fire alarm system and smoke detection

NFPA Standard: 2012 NFPA 101, 19.7.1.1 The administration of every health care occupancy shall have, in effect and available to all supervisory personnel, written copies of a plan for the protection of all persons in the event of fire, for their evacuation to areas of refuge, and for their evacuation from the building when necessary.

NFPA Standard: 2012 NFPA 101, 19.7.1.2 All employees shall be periodically instructed and kept informed with respect to their duties under the plan required by 19.7.1.1.

NFPA Standard: 2012 NFPA 101, 19.7.1.3 A copy of the plan required by 19.7.1.1 shall be readily available at all times in the telephone operator's location or at the security center.

- a. Should be located at nurse's station/central location if no telephone operator's location or security center – responsible staff should know where the plan is located
- b. There is no requirement for a map/evacuation plan to be posted within the facility

NFPA Standard: 2012 NFPA 101, 19.7.2.1.1 For health care occupancies, the proper protection of patients shall require the prompt and effective response of health care personnel.

NFPA Standard: 2012 NFPA 101, 19.7.2.1.2 The basic response required of staff shall include the following:(1) Removal of all occupants directly involved with the fire emergency (2) Transmission of an appropriate fire alarm signal to warn other building occupants and summon staff (3) Confinement of the effects of the fire by closing doors to isolate the fire area (4) Relocation of patients as detailed in the health care occupancy's fire safety plan.

A written health care occupancy fire safety plan shall provide for all of the following:

1. Use of Alarms

- a. Employees are required to know and follow the fire response plan/procedures and follow the fire response plan and any instructions that are announced over the fire alarm and PA systems

2. Transmission of Alarms to Fire Department

- a. Employees are required to know the locations of all manual pull stations in their work area
- b. This includes how to activate the range hood
- c. The activation of the alarm is required no matter the size of the fire
- d. There should not be a different plan for the discovery of a "minor fire" vs. a "major fire"

3. Emergency Phone Call of Fire Department

- a. Individual responsible needs to be designated in the fire plan
- b. A redundancy in case the fire alarm does not transmit
- c. Gives the fire department additional information such as location, size, type, etc.

4. Response to Alarms

- a. **R.A.C.E.**: An acronym that hospital personnel use to remember their duties in case of fire. It stands for **RESCUE, ALARM, CONFINE, EXTINGUISH/EVACUATE**
- b. **Rescue** all patients, visitors, employees, staff and volunteers from immediate danger
- c. **Alarm** by pulling the closest fire pull-station and by dialing 911
- d. **Confine** the area by closing all doors and windows
- e. **Extinguish** the fire if the fire is small. **Evacuate** patients from the area
- f. A larger facility may also designate duties of staff by department

5. Isolation of Fire

- a. Confine the area by closing the windows and the door to the room of origin
- b. There should be a method for identifying all rooms that have been evacuated
- c. Close and mark doors of evacuated rooms (using tape, chalk, door hangars, magnets, etc.)
- d. Placing items at the base of the doors in the corridor (trash cans, pillows, etc.) is not the best practice

6. Evacuation of Immediate Area

- a. Rescue all patients, visitors, employees, staff and volunteers from immediate danger/room of origin
- b. Preventing the spread of fire and smoke beyond the point of origin is the first and best line of defense
- c. Determine safety of exit routes: primary and alternate exits and fire/smoke compartments to be used in event one is untenable

7. Evacuation of Smoke Compartment

- a. Begin with evacuation of the triangle of rooms surrounding the room of origin – the rooms on either side and directly across the hall
- b. Systematically remove the remaining occupants within the smoke compartment (fire doors to fire doors or fire doors to exit)
- c. Moving away from the proximity to the fire (not by ambulation status)
- d. Trying not to cross the line of fire with the residents
- e. Adjacent smoke compartments should be ready to accept patients from the fire's point of origin

8. Preparation of Floors and Building for Evacuation

- a. Keep fire doors closed except when passing through them in order to avoid the spread of smoke/fire
- b. Keep patients and visitors in rooms if possible until directed to do otherwise
- c. Clear corridors of equipment
- d. Do not use elevators
- e. At this point evacuation by ambulation status (ambulatory, walkers, wheelchairs, bedridden) would be prudent
- f. In multi-story buildings – evacuate the floors above and below the compartment of origin
- g. In larger buildings, there may be plans for evacuation of the adjacent smoke compartment to another smoke compartment (two compartments away from the compartment of origin)
- h. **Partial Evacuation** - Partial evacuation or relocation to other areas of the building may be used depending on the particular emergency and the level of danger that it poses. When partial evacuation is indicated, horizontal followed by vertical evacuation will be used
- i. **Horizontal Evacuation** - Horizontal evacuation is preferred over vertical. As directed, patients will be moved typically to an adjacent smoke compartment on the same floor, away from the fire's point of origin
- j. **Vertical Evacuation** - If necessary and as directed, patients may be moved to another floor - typically the floor below. If it becomes necessary to evacuate patients to a lower floor, stairwells should be used
- k. **Complete Patient Evacuation** - Should the emergency condition persist or be of a severity such that the building is endangered, a complete evacuation of the building shall be initiated
- l. **Patient Removal** - Patients are to be removed horizontally by stretcher, wheelchair, blankets, or other method of transportation to an adjacent fire/smoke compartment. Patients in immediate danger shall be removed first - including those who might be subject to danger should the fire spread into their area
- m. Ambulatory patients should be accompanied or directed to an appropriate fire/smoke compartment, depending on the situation. Non-Ambulatory patients should be moved using wheelchairs or stretchers when available to an appropriate fire/smoke compartment. Patients being evacuated should be wrapped in blankets before placing in wheelchairs

9. Extinguishment of Fire

- a. **P.A.S.S.**: Duties for discharging a fire extinguisher - stands for **PULL, AIM, SQUEEZE, SWEEP**
- b. Do not attempt to fight a fire that is spreading beyond the immediate area where it started, is already a large fire or is overhead
- c. The fire could potentially spread and block your escape
- d. You are not trained or feel comfortable operating a fire extinguisher
- e. You are in doubt about whether the extinguisher is designed for the type of fire at hand or if it is large enough to fight the fire
- f. Staff should be aware of the types of fire extinguishers in the building and what they are used for
- g. This includes the K extinguisher in the kitchen - intended for use on cooking oil fires, such as deep fat fryers

Other Considerations:

- a. Anything that makes the area unique from a life safety standpoint (chemicals, flammable liquids, special patient's needs)
- b. Local fire department review of the plan – so the evacuation staging area is not where they want to set up command
- c. Phone numbers up-to-date
- d. Accurate facility layout with barriers located
- e. Memorandums of Understanding or Mutual Aid Agreements are current
- f. Fire safety and evacuation plans are reviewed or updated periodically and as necessitated by changes in staff assignments, occupancy, or the physical arrangement of the building
- g. Medications, medical supplies, food, water (potable and non-potable), linens, medical records, transportation, identification, patient tracking
- h. Procedures for accounting for employees and occupants after evacuation
- i. When looking for a fire when the door is closed - feel for heat with back of hand on door, brace shoulder against door and slowly open