FIRE AND LIFE SAFETY DURING PANDEMICS AND OTHER DISASTERS

Kimberly Bloor
Deputy State Fire Marshal
Washington State Patrol
2020

“Definitely would not recommend”
Why Fire and Life Safety?

In the past we have taken lessons from the historical disasters, let's prepare better for the future. Don't add another disaster to the pandemic.

Nursing homes weren't ready for a pandemic. They're not ready for wildfire, either.

BY LISA PICKOFF-WHITE, MOLLY PETRERSON, APRIL DEMBOSKY AND DANIELLE VENTON
AUGUST 10, 2020
<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>1803</td>
<td>Congressional Fire Disaster Relief Legislation</td>
</tr>
<tr>
<td>1964</td>
<td>Great Alaskan Earthquake</td>
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<tr>
<td>1974</td>
<td>Disaster Relief Act</td>
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<tr>
<td>1977</td>
<td>Natural Earthquake Hazard Reduction Program</td>
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<tr>
<td>1979</td>
<td>Formation of FEMA</td>
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<tr>
<td>1980</td>
<td>Civilian Military Contingency Hospital system</td>
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<tr>
<td>1980</td>
<td>Mount St. Helens Volcanic Eruption</td>
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<tr>
<td>1984</td>
<td>NDMS</td>
</tr>
<tr>
<td>1985</td>
<td>DMATs</td>
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<tr>
<td>1989</td>
<td>Hurricane Hugo and Loma Prieta Earthquake</td>
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<tr>
<td>1990</td>
<td>Stafford Act</td>
</tr>
<tr>
<td>1992</td>
<td>Federal Response Plan</td>
</tr>
<tr>
<td>1996</td>
<td>The Defense Against Weapons of Mass Destruction Act</td>
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<tr>
<td>2005</td>
<td>Hurricane Katrina</td>
</tr>
</tbody>
</table>

All disasters that ended as well as possible where prepared for:
- Food
- Water
- Shelter
- Waste Disposal
1135 Waiver

Scope
Federal Requirements only, no state licensure

Purpose
Allow reimbursement during an emergency or disaster even if providers can't comply with certain requirements that would under normal circumstances bar Medicare, Medicaid or CHIP payment
1135 waivers are not a grant or financial assistance program

Does not allow reimbursement for services otherwise not covered

Should NOT impact any response decisions, such as evacuations.

Do not allow individuals to be eligible for Medicare who otherwise would not be eligible

Do not last forever. And appropriateness may fade as time goes on.
## Waiver Examples

<table>
<thead>
<tr>
<th>Critical Access Hospital</th>
<th>Skilled Nursing Facilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>• 42 CFR 485.620</td>
<td>• SSA 1812 (f)</td>
</tr>
<tr>
<td>• Requires 25-bed limit and Average Patient stays of less than 96-hours</td>
<td>• Three-day prior hospitalization for SNF Patients</td>
</tr>
</tbody>
</table>
Risk Assessment

• Based on an all-risk assessment.
• Assessment must be completed annually.
• Assessment must be specific to your facility. Based on risks associated with your facility. The risks in Washington State are different than those in Florida.
What to Prepare For?

- The “full spectrum of emergencies or disasters” to which the facility is most susceptible.

- As used in the rule, the terms “emergency” and “disaster” do not refer exclusively to an event resulting in an official, public declaration of a state of emergency. Even an event confined within a single facility, such as a localized power failure or cybersecurity event, falls under the rule’s scope.

- “Missing Resident” specifically mentioned for SNF.
I have a plan, now what

- Do you have an evacuation plan?
- How will your facility receive notifications and warnings?
Natural Disasters

Earthquakes
- Potentially active faults

Shaking Hazard
- High
- Low
Man-Made Disasters

RUN/ESCAPE
IF POSSIBLE

HIDE
IF ESCAPE IS NOT POSSIBLE

FIGHT
ONLY AS A LAST RESORT
How to Complete Your Hazard Vulnerability Assessment (HVA)

1. Research your facilities hazards
2. Gather together facility leaders
3. Analyze and score your specific hazards
4. Prioritize staff training needs
5. Analyze critical systems
6. Implement procedures
ICS in Healthcare
**Suggested Roles-There are Many More!**

<table>
<thead>
<tr>
<th>NHICS POSITION</th>
<th>NURSING HOME POSITION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Incident Commander</td>
<td>Administrator</td>
</tr>
<tr>
<td>Medical Director/ Specialist</td>
<td>Medical Director/Nurse Consultant</td>
</tr>
<tr>
<td>Public Information Officer</td>
<td>Media Relations/Administrator</td>
</tr>
<tr>
<td>Liaison Officer</td>
<td>Assistant Administrator</td>
</tr>
<tr>
<td>Safety Officer</td>
<td>Maintenance</td>
</tr>
<tr>
<td><strong>Operations Section Chief</strong></td>
<td><strong>Director of Nursing</strong></td>
</tr>
<tr>
<td>Resident Services Branch Director</td>
<td>Director of Staff Development</td>
</tr>
<tr>
<td>Nursing Unit Leader</td>
<td>Charge Nurse</td>
</tr>
<tr>
<td>Psychosocial Unit Leader</td>
<td>Activities Director</td>
</tr>
<tr>
<td>Admit/ Transfer &amp; Discharge Unit Leader</td>
<td>Charge Nurse or Rehab Director</td>
</tr>
<tr>
<td>Infrastructure Branch Director</td>
<td>Housekeeping supervisor</td>
</tr>
<tr>
<td>Dietary Unit Leader</td>
<td>Cook</td>
</tr>
<tr>
<td>Environmental Unit</td>
<td>Housekeeper</td>
</tr>
<tr>
<td>Physical Plant/Security Unit Leader</td>
<td>Maintenance</td>
</tr>
<tr>
<td>Planning Section Chief</td>
<td>Assistant/Associate Administrator</td>
</tr>
<tr>
<td>Situation Unit Leader</td>
<td>Director of Admitting</td>
</tr>
<tr>
<td>Documentation Unit Leader</td>
<td>Medical Records Staff</td>
</tr>
<tr>
<td><strong>Logistics Section Chief</strong></td>
<td><strong>Assistant/Associate Administrator/Director of Dietary Services</strong></td>
</tr>
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</table>
California fire: If you stay, you're dead. How a Paradise nursing home evacuated
National
A Florida assisted care facility sheltered in place for Irma. The power went out. For three days.
Why fire and life safety is important

Residents at local nursing home evacuated after generator fire knocks out power
Why fire and life safety is important

Calhoun County nursing home caught on fire early Monday morning

By Emma Rose Davis - August 31, 2020

CALHOUN COUNTY, MISS. (WCBI) – A Calhoun County nursing home caught on fire early this morning.
Why fire and life safety is important

Phoenix nursing home fire
More than two nursing home residents were evacuated when fire broke out at their facility near 27th Street and Bell Road in Phoenix on Thursday, Sept. 10, 2020, according to fire officials. Arizona Republic
CAMDEN, N.Y. (WSYR-TV) - Multiple fire departments responded to a fire at an assisted living community in Oneida County on Friday night.

According to those with the Camden Fire Department, the call went out around 9:30pm at Valehaven Community Residence on Main Street. Staff reported light smoke at the time and that the sprinkler system had been activated.

Fire crews say that 33 people have been displaced as a result of the fire. At one point, two people were reported missing but were soon located safely. No one was hurt.

This is a Developing Story. Check back for updates as they become available.
Why fire and life safety is important

1 killed, 2 hurt in shooting at assisted living complex in Rhode Island: Police

The suspect -- a 66-year-old man who lived at the facility -- was found dead.

By Emily Shapiro
December 19, 2019, 12:20 PM • 2 min read

1 dead in shooting at assisted living building
Fire spreads fast!

<table>
<thead>
<tr>
<th>Size of Fire – Diameter</th>
<th>Time Elapse</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 foot</td>
<td>Beginning</td>
</tr>
<tr>
<td>6 foot</td>
<td>2 minutes</td>
</tr>
<tr>
<td>12 feet</td>
<td>4 minutes</td>
</tr>
<tr>
<td>48 feet</td>
<td>6 minutes</td>
</tr>
<tr>
<td>568 feet</td>
<td>10 minutes</td>
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</table>
Most fire and life safety contractors have been considered essential and would be able to come into your facility to do repairs or testing.
Both NFPA and ICC State FLS is Important!
Hospital Fires

- Cooking Equipment, 52%
- Smoking Materials, 2%
- Electronic Equipment, 2%
- Medical Equipment, 2%
- Clothes Washers and Dryers, 4%
- Heating Equipment, 4%
- Electrical Wiring and Lighting, 7%
- Contained Trash or Debris, 9%
Sprinkler Systems

• The following are required documents to have in your fire sprinkler section:

  • Quarterly reports (January-March, April-June, July-September, October-December)
  • Annual report (your annual can count as one quarter).
  • Backflow report (annual)
  • Three year full trip on the dry system
  • 5 year internal inspection
  • Diesel fire pumps must be operated weekly
  • Electric fire pumps must be operated monthly
  • Annual fire pump testing if applicable
  • Results of any sprinklers sent for testing
Testing Frequencies

• **3.7.1.4 Quarterly Frequency.** Occurring four times per year with a minimum of 2 months and a maximum of 4 months.

• **3.7.1.5 Semiannual Frequency.** Occurring twice per year with a minimum of 4 months and a maximum of 8 months.

• **3.7.1.6 Annual Frequency.** Occurring once per year with a minimum of 9 months and a maximum of 15 months.

• **3.7.1.7 Three Years Frequency.** Occurring once every 36 months with a minimum of 30 months and a maximum of 40 months.

• **3.7.1.8 Five Years Frequency.** Occurring once every 60 months with a minimum of 54 months and a maximum of 66 months.
Quarterly Testing
Annual Testing

What happens at an annual fire sprinkler inspection?
3 and 5 Year Testing
Fire Alarm

The following are required documents to have in your fire alarm section:

- Fire alarm annual (any testing, repairs, or replacement must be done with someone with NICET II.)
- 5 year sensitivity report for zoned systems
- Nuisance log for zoned systems
Kitchen Suppression

- The following are required documents to have in your kitchen section:
  - Wet systems are to be serviced annually.
  - Chemical systems are to be serviced every 6 months.
  - Hoods are to be professionally cleaned depended on the type of cooking:
    - 24 hour, high volume, or wok cooking should be quarterly.
    - Moderate level semi-annually.
    - Low volume (churches, seasonal business) annually.
  - The filters should be cleaned in-house as often as necessary.
Commercial Kitchen Hoods:
How do Type 1 hood systems activate

- Type 1 hood systems have a manual actuator

- Type 1 hood systems have mechanical actuator that are typically fusible links or frangible bulbs similar to sprinkler heads that cause automatic activation
Generators

- The following are required documents to have in your generator section:
  - If you have a Type 1 system you are required to have 96 hours of fuel.
  - Generators must have an annual servicing
  - Generators are to be inspected weekly
  - Generators are to be tested under load for 30 minutes monthly.
    - They must start automatically within 10 seconds
    - Diesel generators must run at 30% of load for 30 minutes.
      - If diesel generators do not meet this for all monthly tests they must be exercised annually at various loads for 1.5 hours.
  - Generators must activate the transfer switch.
Diesel Generators

- Additional diesel generator requirements:
  - Generators shall be tested monthly for 30 minutes under a load at not less than 30 percent of the EPS nameplate kW rating or loading that maintains the minimum exhaust gas temperatures as recommended by the manufacturer.
Diesel Generators

- If the diesel generator cannot be tested monthly to meet the required KW rating or exhaust temperature conditions; the generator shall:
  - Be exercised annually with supplemental loads at not less than 50 percent of the EPS nameplate kW rating for 30 continuous minutes and at not less than 75 percent of the EPS nameplate kW rating for 1 continuous hour for a total test duration of not less than 1.5 continuous hours.
Generators cont:

- Generator Maintenance:
  - A detailed log of generator operations shall be maintained on the premises.
  - The system is required to run UNDER LOAD for a minimum of 30 minutes per month (Including Natural Gas Generators).
  - A simple exercise run that DOES NOT activate the transfer switch does NOT meet the code requirement.
  - Records will provide adequate detail to differentiate when the system was run under load.
Emergency Lighting

- All battery operated emergency lighting must be tested monthly for 30 seconds and annually for 90 minutes.

- All emergency lighting without a battery (on generator backup) must be inspected monthly to ensure it is still functioning.
Fire Drills

- Fire drills must be completed on each shift for every quarter.
  - If you have three shifts a day you would complete 12 fire drills a year.
  - All fire drills must be tested under a variety of conditions and at various times (do not always do the fire drill on the first Monday of the quarter at 8:00 AM).
  - A list of all participants must be included with each drill.
Fire Extinguishers

- All fire extinguishers must be inspected every month.
  - Is the yellow arrow in the green?
  - Is the pin still in place?
  - Is the hose obstructed?
  - Is there damage to the fire extinguisher?
  - Turn the fire extinguisher upside down and shake to redistribute the chemicals

- You must have a written record for each fire extinguisher.

- All fire extinguishers must be professionally inspected annually. The inspector must provide you with a new punched tag.

- It is a good idea to keep all old tags in case of an insurance claim.
Fire Doors

- All fire rated doors are required to be inspected and repaired annually.
- A written record must be kept of all fire doors and the 12 step inspections.
  1. No open holes or breaks exist in surfaces of either the door or frame.
  2. Glazing, vision light frames, and glazing beads are intact and securely fastened in place, if so equipped.
  3. The door, frame, hinges, hardware, and noncombustible threshold are secured, aligned, and in working order with no visible signs of damage.
  4. No parts are missing or broken.
  5. Door clearances at the door edge to the frame, on the pull side of the door, do not exceed clearances listed in 4.8.4 and 6.3.1.
  6. The self-closing device is operational, that is, the active door completely closes when operated from the full open position.
  7. If a coordinator is installed, the inactive leaf closes before active leaf.
  8. Latching hardware operates and secures the door when it is in the closed position.
  9. Auxiliary hardware items that interfere or prohibit operation are not installed on the door or frame.
  10. No field modifications to the door assembly have been performed that void the label.
  11. Gasketing and edge seals, where required, are inspected to verify their presence and integrity.
Door was CLOSED during fire!

This room is directly across the hall from room of origin!
Now if the time to think...

- How will I deal with two disasters at the same time? What if I have to evacuate during COVID? What if there is civil unrest in the area and we need to lock-down in one area?

- What if my facility.....
Questions?