

## **Falmouth Fire-EMS Operating Guideline**

### **Chimney Fire Operations**

#### **Objective:**

To provide guidelines for responding to reported chimney fire incidents within the jurisdiction of Town of Falmouth.

#### General Information:

Fireplaces and wood stoves are designed to safely contain wood-fueled fires, while providing heat for a home. The chimneys that serve them have the job of expelling the by-products of combustion - the substances given off when wood burns.

As these substances exit the fireplace or wood stove, and flow up into the relatively cooler chimney, condensation occurs. The resulting residue that sticks to the inner walls of the chimney is called creosote. Creosote is black or brown in appearance. It can be crusty and flaky, tar-like, drippy and sticky, or shiny and hardened. Often, all forms will occur in one chimney system.

Whatever form it takes, creosote is highly combustible. If it builds up in sufficient quantities and catches fire inside the chimney flue the result will be a chimney fire. Although any amount of creosote can burn, sweeps are concerned when creosote builds up in sufficient quantities to sustain a long, hot, destructive chimney fire.

Certain conditions encourage the buildup of creosote. Restricted air supply, unseasoned wood and cooler-than-normal chimney temperatures are all factors that can accelerate the buildup of creosote on chimney flue walls.

#### **Guidelines:**

##### General Response:

The following actions will be taken with respect to chimney fire incidents:

1. A Chimney Fire will be transmitted as a Still Alarm and receive an assignment of 3 Engines, 1 Aerial, and 1 Ambulance.
2. The district engine, and chief/duty officer will respond code 3 (lights and siren). Other responding units will respond code 1 (no lights or siren), unless the incident is upgraded to a desk box.
3. The primary actions by the first arriving units will be determined by the Incident Commander based on initial size up.
4. The first arriving Engine Company is responsible for primary investigation and interior operations. This may include air monitoring and checking for extensions in the residence, if there is sufficient crew.
5. The Tower Company is responsible for roof operations. If the Tower Company is not on scene, other arriving units may assume roof operations pursuant to instruction from Incident Command.
6. Consider using a fireground channel for on-scene communications.

7. The second arriving Engine Company is responsible for securing a water supply and then may be assigned to other tasks by the IC as needed.
8. The Ambulance Company, if on scene before the first Engine Company, will be the initial investigation crew or possibly assist them. Once sufficient resources are on scene, the Ambulance Company may be assigned to perform a 360 and possibly to set up REHAB if needed and may assist the IC or Safety Officer with safety monitoring or another function as determined by the IC. If the first arriving engine or aerial needs manpower assistance, the crew of the ambulance may supplement that crew. The Ambulance Company will locate the ambulance in a position where emergency response to the hospital is possible (i.e. parking away from hose lines, hazards, etc.). The Ambulance may be used to keep occupants out of the cold weather.
9. The third arriving Engine company – For hydrant areas stage on C-side and/or Sprinkler Fire Department Connection (FDC) for commercial buildings. If there is no C-side access or for residential buildings, stage at 2<sup>nd</sup> closest fire hydrant. For non-hydrant areas respond to closest water source (dry hydrant or hydrant) and prepare to fill tankers (See Rural Water Supply SOG).
10. Any additional apparatus will be assigned by the Incident Commander.
11. Life Safety is the first order of business and as such the structure should be appropriately evacuated. Assure occupants have a safe and warm place to assemble.

#### Equipment Needed:

##### Interior Crew:

- Full PPE with SCBA
- Chimney bucket
- Tarps (incl. runner tarp)
- Hand tools
- Water can
- Thermal Imaging Camera
- Hand lights
- Toolbox
- Multi-gas meter

##### Roof Operations:

- Full PPE with SCBA
- Extension ladder
- Roof ladder
- Chains
- Hand lights
- Small tools
- Dry chemical bags
- Harness (if working off aerial)

#### Incident Command (IC):

1. Establish IC.
2. Perform initial scene size up and provide radio update to all units.
3. Ensure all occupants are safely evacuated from the building.
4. Obtain additional information from owner/occupant regarding situation including condition of occupants.
5. Perform or obtain 360-degree walk-around of building.
6. Assess need for status upgrades and need for personnel/apparatus.
7. Develop Incident Action Plan (IAP) and direct resources following NIMS.
8. Establish fire ground channel and make assignments to crews as needed.

9. Explain to the owner / occupants the process that we follow.
10. Measure successes or failures in relation to IAP and acknowledge completion of milestones. Alter the IAP as needed.
11. Complete Owner Acknowledgement Form and describe conditions, actions, and any recommendations.

#### Interior Operations:

1. All personnel performing interior operations must have a SCBA donned and ready for operation prior to entry. Depending on the presence of smoke or other hazardous condition, division or group supervisor will determine the need to be on air or not. In all instances, the SCBA must be donned and personnel ready to breath air.
2. Accountability system must be implemented. In the absence of an accountability officer, the IC or designee is responsible for maintaining accountability for all personnel operating at the scene.
3. Standard interior operations tools and equipment should be staged near entry for easy retrieval as needed.
4. A 1 ¾" hose line may be pulled for protection of interior crews dependent on conditions and determination by the IC. In all cases a water-based and dry chemical fire extinguisher should be staged with all other tools and equipment.
5. Interior operations working on the first floor will be referred to as Division 1 (or Investigation Group #). Any additional interior crews will be designated based on assignment or as another division or location.
6. Depending on the conditions present, assess air quality using multi-gas meter. Breath air from SCBA as considered appropriate.
7. Investigate the conditions and determine the first order of priorities. Consider using the TIC to make this determination.
8. Depending on the conditions, consider the use of tarps to cover the area around the fireplace or woodstove extended to the exit to minimize damage. Use runner tarps.
9. All contents of the fireplace or woodstove must be safely removed to the chimney bucket and emptied in a safe location away from the exterior of the building and extinguished. It is good customer service practice to ask where the homeowner would like the material discarded, if possible.
10. Evaluate the severity of heat transfer and potential extension of fire from source to point of exhaust via roof. For woodstoves, this typically is near the stovepipe and connection to the wall of the home. Use a TIC for this.
11. Communicate with Roof Division to complete investigation of chimney flue.

#### Roof Operations:

1. All personnel performing roof operations must have an SCBA donned and ready for operation prior to ascending to the roof. Depending on the presence of smoke or other hazardous condition, roof division supervisor will determine the need to be on air or not. In all instances, the SCBA must be donned and personnel ready to use it breath clean air.

2. Proper lift and carry techniques must be applied to the removal, placement and setting of all ladders.
3. Appropriate safety considerations must be considered (including roof & chimney conditions and weather) prior to placing personnel on the roof.
4. EMS crew should be staged at the scene while members are on a roof.
5. Ascend with proper tools, chains, and hand light for roof operations.
6. Crew working on the Roof will be referred to as Roof Division.
7. Communicate with interior divisions and groups and incident command prior to implementation of any activities inside the chimney.
8. Work with the IC to determine appropriate activities to perform inside the chimney.
9. Communicate with interior divisions and groups as to the use of chains and viewing light from chimney to source.

Notes of Caution:

- Not all chimneys are accessible from the exterior to complete the operation. In this case, explore other options to examine the content of chimney flue. This may entail examining clean-out portals.
- The Aerial (Tower 2) may not be able to access the roof. Ground ladders may be the best option.
- Weather conditions and the pitch of the roof may present a safe situation for operations. Under no circumstances should operations personnel be placed at risk.
- A Ladder Belt must be worn if working off the top of the Aerial.

Other considerations:

- Using water during roof operations should be a means of last resort with visible and active fire conditions present with no other means of extinguishment. Water may damage undamaged chimney flues at considerable expense to the homeowner and may damage the chimney and create voids that could lead to fire extending to interior walls.
- Consider emptying a bag of dry chemical extinguishing agent into the chimney as a means of extinguishing visible fire.
- Use chains in a coordinated effort with interior divisions to safely knock creosote off the interior of the chimney to remove combustible material.
- Many chimneys have more than 1 flue and some may or may not have a clean-out that is accessible. Be sure to properly investigate to determine the exact location of the fire in the chimney, the correct flue, and the easiest means to clean out any fallen debris inside the chimney.
- Owner Acknowledgement Form should be used to communicate restrictions of use by owner/occupant until a professional services the fireplace, woodstove, stovepipe and/or chimney.
- Consider upgrading Still Alarm to a Desk Box based on updates in route or conditions found upon arrival.

These guidelines may be changed or altered by the Fire Chief at any time.