



Carroll County Department of Fire & EMS

Standard Operating Procedure

DOCUMENT DETAILS

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Subject: Basement Fires	Section: Fire/Rescue Operations
Authorized: Deputy Chief Paul Supko	Revision Date: N/A

Applicability: [X] Volunteer [X] Career

I. PURPOSE

The majority of traumatic firefighter deaths occur when a firefighter operating above an uncontrolled fire falls through the floor into the fire. This SOG standardizes the operational approach regarding suspected basement fires to reduce the probability of firefighter injury or death. At no time should anyone operate above an uncontrolled fire except as necessary to preserve life. Additionally, a basement fire increases the likelihood of firefighters being caught in the fire flow path by entering above the fire.

II. DEFINITIONS

Definitions for this procedure are covered in the IMS & Fireground Communications policies.

III. PROCEDURES

A. Initial Company Actions:

1. The first arriving company officer completes the 360 survey **before** implementing interior firefighting tactics.
2. In the event the first arriving officer is unable to conduct a 360 survey due to physical barriers, they must communicate that and assign that task to another unit.
3. Interior tactics shall not begin until conditions in the basement have been identified.
4. In situations where an **obvious** rescue(s) exists, and the initial company officer identifies the need for immediate action, they must communicate that they are unable to conduct a 360 due to an obvious rescue and assign that task to another unit before engaging in firefighting/rescue tactics.

Exterior Basement Entrance Present

1. First Hoseline Placement:

- a. **Under the greatest majority of circumstances, when an exterior entrance exists, the first attack line shall be advanced through this entranceway.** However, on the rare occasion when the first arriving officer/Incident Commander (IC) observes a condition requiring deviation, that must be clearly communicated on the radio.
- b. **Officers must immediately notify the IC of any delays in accessing the exterior basement entrance and/or getting water on the fire. This is critical for the safety of all members operating above.**
- c. Keep basement door/slider and all windows closed until a charged hoseline is in place, has been bled of air, and the stream has been checked.
- d. Notify the IC when you have water on the fire.

2. Second and Third Hoseline Line Placement

- a. Once a hoseline has been deployed through the basement entrance, the next critical positions (in no particular order) will be:
 - i. An additional line to the basement
 - ii. First floor
 - iii. Any other floor above the first floor
 - iv. Any attached exposures
 - b. The location where the 2nd and 3rd line should be deployed is dependent on several critical factors, including but not limited to:
 - i. Victim status
 - ii. Search status of the upper floors and the need for hoseline to protect the search
 - iii. Time gap between the arrival of the second, fourth, and fifth engines
 - iv. Conditions evident on the first floor
 - v. Volume of fire in the basement
 - vi. Physical size, layout, or square footage of the basement
3. Based on fireground dynamics, and in the absence of any tactical direction from the IC, the officer of the second hoseline must clearly communicate with everyone on the incident the location where they will be deploying their line. Based on that information, the third and any additional lines deployed will need to cover the other high priority location(s).

B. No Exterior Basement Access

1. If there is visible fire in the basement from an exterior window, the first hoseline should be deployed temporarily from the exterior, flowing water through the window, to knock down the visible fire. This must be communicated on the radio to all units.
 - a. A big part of the efficacy of this tactic will be the ability to apply water directly to the fire area. Using this tactic when the water is not reaching the seat of the fire will have diminishing benefits.
2. After darkening down the fire, and as conditions allow, consideration should be given to follow-up the initial attack by cautiously deploying a line to the basement via the interior basement steps for final extinguishment.

C. Advancing Down an Interior Stairwell

1. It must be done with the highest level of caution. The condition of the interior floor system should be verified to the best ability to ensure stability. Advancing crews should do so cautiously, continuously checking floor stability in front of them as they go.
2. The first line should advance to the top of the stairwell, control any fire at the stairwell, and evaluate conditions before descending the stairs.
3. As conditions warrant, using a straight stream, the crew will descend the stairs while observing the integrity of the basement stairs, to locate and extinguish the fire.
4. Having a second line in place to back up the basement company is critical. That company must be in place to make sure the attack hoseline is moving effectively and that the basement stairs remain clear of people and fire. This line will not redeploy to another location unless directed by the IC and then must be replaced.
5. If there is no exterior access and the basement stairs become untenable, consider creating access points for water application. This includes using appliances like cellar nozzles, piercing nozzles, revolving distributor nozzles, etc.

D. General Considerations when Operating Above a Basement

1. Maintain strict door and window control.
2. Ensure that your hoseline is charged and ready to flow before making entry.
3. Assess the conditions at the threshold and notify the IC of the following:
 - a. Floor condition
 - b. Smoke conditions
 - c. Heat conditions
4. Traverse the first floor slowly, paying full attention to floor integrity.
5. Protect the stairs between the first and second floors.
6. If conditions allow further advancement, the next priority will be to locate the basement stairs and provide protection by closing the basement door. If there is no door at the top of the stairs or it will not close, a hoseline directed at the first-floor ceiling above the basement doorway provides limited protection.
7. When possible, use walls and other positioning to remain out of the flow path.
8. Careful attention should be given to operating above a basement fire in balloon frame construction. Crews shall use Thermal Imaging Cameras to detect fire in walls and attic spaces.

E. Truck/Rescue Squad Operational Considerations

1. When the fire attack is made using an exterior basement entrance, the first due truck may be responsible for all forcible entry needs and the primary search of the basement.
2. Ladder placement remains a priority at basement fires as:
 - a. Fire quickly extends to upper floors through void spaces
 - b. The use of "vent enter isolate search" (VEIS) techniques is often required
 - c. Normal paths of egress can be cut off due to rapidly extending fire conditions
3. Searches of the second floor should be performed from ladders, decks, or upper floor access points to avoid operating directly over the fire. All searches conducted via ladder (VEIS) must be communicated to the IC, who will ensure a hoseline is deployed to protect the search.

F. Ventilation

1. Ventilation **must only** be done in coordination with the attack crews.
2. The critical timing of coordinated ventilation is most effectively achieved when the engine company assigned to attack the fire communicates via radio that they are "applying water to the fire."
3. Ventilation should begin as close to the seat of the fire as possible.
4. Ventilation should be completed in a manner that will not cause the attack path to become the fire flow path.

IV. RECISION

This Standard Operating Procedure rescinds all directives regarding Basement & Below Grade Fires or similar content previously issued for personnel of the Carroll County Department of Fire & EMS.

V. RELATED STANDARD OPERATING PROCEDURES / DOCUMENTS

1. **Policy 4.2.1 Structural Firefighting**
2. **Policy 4.1.1 IMS**
3. **Policy 4.1.2 Communications**

VI. ATTACHMENTS

None