

One and Two Family Dwellings

15.0500 Scope:

This procedure will provide an organized method in which to carry out the fire ground functions in a timely and safe manner. Discussed will be the rescue procedures, initial fire attack and line placement, safety, and fire ground organization. Most firefighter injuries/fatalities occur at one and two family dwelling fires!

15.0501 Terms:

- a. Primary Search: A search that is made to quickly locate and remove potential victims or occupants when firefighters initially arrive on the scene of an emergency. The emphasis is on quickness and being thorough.
- b. Secondary Search: A search that is begun after the fire is under control or has been extinguished. The search is conducted to verify the fact that no one has been missed during the primary search.
- c. Standardized Search Pattern: A method of searching a fire building or area that covers the area to be searched in a complete systematic manner. All turns are made in the same direction every time a door or other opening is encountered.
- d. Crew Leader: Officer or designated firefighter responsible for a crew (team).

15.0502 First Engine to Arrive (Water Supply):

On smoke showing, visible fire or confirmed alarm, the first arriving engine shall forward lay a 5-inch (LDH) supply line from the nearest fire hydrant prior to arriving at the fire building, OR position the first arriving engine company at the nearest fire hydrant prior to the fire building and allow the officer and fire crew to investigate the condition of the reported fire building (hydrant person & D/O should stay with Eng.)

15.0503 Catching the Hydrant:

The first arriving engine company shall stop at the nearest fire hydrant prior to the reported building on fire. One firefighter shall remove the LDH, hydrant accessory bag and wrap the rope around the hydrant. The hydrant person shall signal the driver of the first arriving engine to proceed to the fire once they have secured the hose/rope around the hydrant. As the engine lays out hose, the hydrant person removes the hydrant caps from the hydrant and SLOWLY flushes the hydrant by allowing water to flow out of the hydrant outlets until the water becomes clear. The hydrant is shut down and the supply hose is attached to the largest hydrant outlet. If available, a 2 1/2 gated valve should be placed on one 2 1/2 hydrant outlet. Once the hose has been connected, and they have received

a signal from the pump operator, SLOWLY turn the hydrant on. If the engine is out of sight of the hydrant person, the engine operator will signal for water with two short (2-3 sec.) blasts of the air horn. After the hydrant has been turned on, the hydrant person proceeds to the fire and straightens the supply hose as they proceed.

15.0504 Level 1 Staging:

First arriving Engine responds to pre-assigned position. All other units, except Command vehicle, should stage one block away ready to go to a suggested location or a location ordered by the Incident Commander.

15.0505 Engine Company Positioning:

Positioning of the engine is the responsibility of the officer. The driver should position the apparatus for optimum efficiency. When positioning the engine for a one or two family dwelling fire, the driver should position the engine just past the fire building, if possible. This is done for two reasons: 1) It allows the officer to view three sides of the fire building (side D, side A, and side B of the building); and, 2) it leaves side A (front) of the building available for the ladder truck.

15.0506 Rescue:

Rescue of a known life is the #1 Priority. A primary search should be conducted immediately WITH a charged hoseline. It is also imperative that a handline be stretched to the seat of the fire by the first arriving engine in an attempt to stop the forward progress of the fire. This will facilitate the rescue effort and lessen the danger to the occupants. If the occupants are visible from the exterior of the building, an attempt should be made to rescue them with the use of ground ladders. If staffing permits, the rescue should be carried out while a handline is advanced to the seat of the fire. Members advancing the handline to the fire area can search that area as well as extinguishing or controlling the fire.

Any emergency medical care should be provided to the occupants of the residence as soon as possible, such as cardiopulmonary resuscitation. There should be no hesitation in requesting emergency traffic for an ambulance to treat occupants, or for standing by for possible use at a later time. Any working fire requires the presence of an ambulance on location.

15.0507 Fire Control:

At least one handline shall be advanced to the seat of the fire. The line chosen shall never be less than 1-3/4 inches in diameter. In most cases the fire attack should be made from the unburned side of the building. In many cases, the line can be advanced through the front door of the dwelling.

From this point, access is usually available to all areas of the dwelling. The number of lines to be used will be the choice of the Incident Commander and depend directly on the nature and size of the fire encountered. A Rapid Intervention Team is necessary to potentially rescue the fire attack crew.

15.0508 Search and Rescue:

At least two firefighters (team) will always be assigned this task by the incident commander. In the average one or two family dwelling, two firefighters will be able to quickly search and locate victims.

15.0509 Primary Search:

A primary search must be performed at every fire situation, whether fire is showing or not. The only difference is the number of firefighters assigned this task by the Incident Commander. In nothing showing situations, the primary search can be assigned to two firefighters, however, if a fire is located, more firefighters must be assigned to the task. The crew performing search and rescue must be equipped with a radio to keep in constant communication.

When conditions indicate there is a fire or the first arriving company reports a fire in their size-up, a primary search must be performed to locate and remove endangered occupants, or to verify that civilians have escaped the fire. The fire attack crew(s) can perform the primary search of the immediate fire area while the truck or rescue company personnel begin the primary search on the floor immediately above the fire. All searches must be made using the standardized search pattern indicated in Section 15.0510. If time and staffing permits, the search and rescue crews operating above the fire should do so with the protection of a handline. A tagline/rescue rope should be used as a minimum protection device to lead search personnel to the way out of the building. This will provide protection for the firefighters performing this task. Firefighters performing the primary search must have forcible entry tools with them to force open locked doors or to aid in the escape of the firefighter should he/she become trapped in a building or room.

Victims are often overcome attempting to escape the fire. For this reason, fire fighters performing the primary search will commonly find victims next to doors and windows. Firefighters should pay close attention for signs of trapped or injured occupants. Coughing, moaning, or cries for help may indicate people have not escaped the fire (see Figure 1). If occupants or victims are located, this should be communicated to the Incident Commander immediately. Victims should be removed via the interior stairway if at all possible. Ladders should be used only if passage down the stairway is not possible.

Firefighters shall mark the rooms or areas that have been searched by placing a piece of furniture or other article that would not normally be found in that location in the doorway or entrance to the searched area.

15.0510 Standardized Search Pattern:

All fire fighters performing a primary search shall use a standardized search pattern with all turns to be made in the same direction as identified by the search crew officer or team leader upon entering the structure (see Figure 2). The sequence to be used in searching the fire building will be made as follows: the fire area, floor above the fire, the very top floor, and all other floors working down from the very top floor.

The use of a standardized search pattern will provide a systematic method to completely search a building or area. Should a firefighter become disorientated or lost, they must inform the incident commander or Rapid Intervention Team leader what direction that the crew turned upon entering the structure so the RIT team may already know their possible location from the search patterns they will have used.

15.0511 Second Arriving Engine Company:

The primary responsibility of the second arriving engine company will be to ensure that the first arriving engine has a sufficient and uninterrupted water supply and then locate an alternative water supply. When a fire has been confirmed, the second arriving engine should approach, if possible, from the opposite direction of the first arriving engine company and lay a second supply line into the fire area. If a back-up safety line/RIT has not been established, that should be the first priority of this crew.

15.0512 Ladder Company Positioning:

The positioning of the truck shall be the responsibility of the officer, if not assigned by Incident Commander. The first arriving ladder company will normally take up a position at side 1 (front) of the reported fire building unless directed otherwise.

15.0513 Ladder Company Operations:

It will be the responsibility of the Ladder Officer, or Acting Officer, to prioritize the support activities to be performed according to the fire conditions presented. Although some of the duties may have been already implemented by earlier arriving engine companies, it will be the responsibility of the Ladder Officer to coordinate the remaining activities to ensure they will be completed. The following are some of the activities or duties that must be addressed: rescue, ladders, forcible entry,

salvage, ventilation, and utility control. Many of these duties can be carried out simultaneously with one another.

15.0514 Ladders:

The primary functions of the truck is rescue and ventilation, however, other truck duties must be performed in conjunction with rescue. As you will remember from recruit training, many of the duties you will perform will aid in rescue or will greatly facilitate the rescue process.

If occupants are visible at the windows, roofs, or porches, they should be rescued immediately by the use of ground ladders. If people are not visible, ground ladders must be used anyway. At least one ladder must be placed to the second floor living area to permit quick access for search and rescue operations. This ladder will also be used as a second means of egress for firefighters operating on the second floor of the structure.

15.0515 Rescue Company Operations:

It will be the responsibility of the Rescue Officer, or Acting Officer, to prioritize the support activities to be performed according to the fire conditions presented. Although some of the duties may have been already implemented by earlier arriving engine companies, it will be the responsibility of the Rescue Officer to coordinate the remaining activities to ensure they will be completed. The following are some of the activities or duties that must be addressed: rescue, ladders, forcible entry, salvage, ventilation, RIT and utility control. Many of these duties can be carried out simultaneously with one another.

15.0516 Secondary Search:

As soon as the Incident Commander has declared the fire under control, a secondary search must be made of the fire building. All areas should be checked thoroughly for anyone who may have survived the fire or for any victims who may have been missed during the primary search. The company officer shall inform the incident commander that the secondary search has been completed.

15.0517 Ventilation:

Ventilation must be performed. Ventilation facilitates rescue, fire control and property conservation. Ventilation shall not occur until attack lines have been charged. Positive Pressure Ventilation is preferred but there are risks involved with utilizing PPV, if the location of the fire can't be determined the safety of the interior crews or victims may be compromised. The IC will determine the need for vertical or horizontal ventilation. This task will normally be conducted by the

ladder company but could be conducted by the second arriving engine crew if necessary. Ventilation should be one of the early priorities!

Fire that extends to attics must be controlled quickly. Ventilation of the roof is essential. Venting of the roof should be performed directly over, or as close as SAFELY possible to the fire. In fires that are extremely smoky, roof ventilation should be performed over stairwells or hallways to clear these areas of smoke and toxic gases.

When roof ventilation is performed, it shall be performed with a minimum number of two firefighters in full protective equipment, including SCBA. The following equipment shall be considered standard equipment to be taken to the roof at all times:

- a. Pick-Headed Axes
- b. Pike Poles
- c. Power saws
- d. Rope
- e. Flashlights
- f. Roof Ladders(s)
- g. Radio
- h. Charged Hoseline for Fire Fighter protection only

Prior to roof ventilation activities, at least two ladders must be raised to the roof. Depending on access, the aerial ladder can be positioned to the roof and a ground ladder placed as a secondary means of egress. One large opening should be made rather than two smaller ones. Care shall be taken not to cut or damage the supporting roof support systems. If the roof shows conditions of collapse (sagging, separation of roof and walls, large cracks or openings around ducts, chimneys, etc.) command must be notified at once. Once the opening(s) have been made, be sure to remove any ceilings to ensure ventilation is accomplished in the attic or upper most floors. Once ventilation is complete, retreat from the roof and notify command that ventilation is complete.

Positive pressure ventilation is highly recommended if possible.

15.0518 Rapid Intervention Team:

When interior fire attack occurs within a structure, a Rapid Intervention Team shall be assigned by the Incident Commander. The RIT Team shall secure the necessary equipment needed to perform an effective and efficient removal of personnel should they experience trouble. It will be the responsibility of the RIT Team leader to stay apprised with the probable location of all personnel who are operating within the structure. It will be critical to coordinate RIT Team activities with the Incident Commander along with the scene Safety Officer. See RIT Procedures located in Section 4.34.

15.0519 Property Conservation:

Property conservation measures should begin as soon as possible to reduce the property loss by fire, heat, and smoke. Property conservation efforts are to be performed by personnel when staffing levels and conditions permit salvage operations to begin. Salvage covers should be used to protect valuables and to prevent further damage by water and smoke.

15.0520 Forcible Entry:

All truck/rescue company firefighters should be prepared to perform forcible entry. All firefighters must have forcible entry equipment such as axes, pike poles, pry bars, and halligan tools. Entry must be made in the quickest and most cost effective manner.

15.0521 Overhaul:

When the fire has been confined and/or declared under control, overhaul efforts should begin. At least one handline shall remain in service during overhaul. Overhaul will be continued at the discretion of the incident commander. Ladder company personnel will assist engine company personnel with the task of overhaul. Ladder company personnel must pull walls and ceilings that have been exposed to fire to search for hidden fire prevent a rekindle. The thermal imaging camera should be used to assist in locating hidden fires without further damaging the structure.

15.0522 Utility Control:

All utilities with the exception of natural gas shall be controlled by the appropriate utility companies. One firefighter must be assigned to close the gas valve off at the meter if a fire is found. The valve can normally be found on the lower left side of the meter at or near grade level.

15.0523 Safety:

The safety of fire department personnel is of the utmost concern. No member shall be permitted to take part in fire suppression activities unless that person is wearing full protective clothing including self-contained breathing apparatus (SCBA). SCBAs shall be worn at all times on the interior of the building during fire suppression activities--including during overhaul. SCBAs shall be worn until it can be determined that the level of carbon monoxide in the structure is at a safe level. At that time the Incident Commander can grant permission to the operating crews to remove their SCBAs.

All injuries to fire fighters shall be reported immediately to the company officer and required medical attention given.

15.0524 Crew Units:

Crews are to stay together. If their officer is assigned another detail, a crew leader will be designated before the Officer is reassigned.



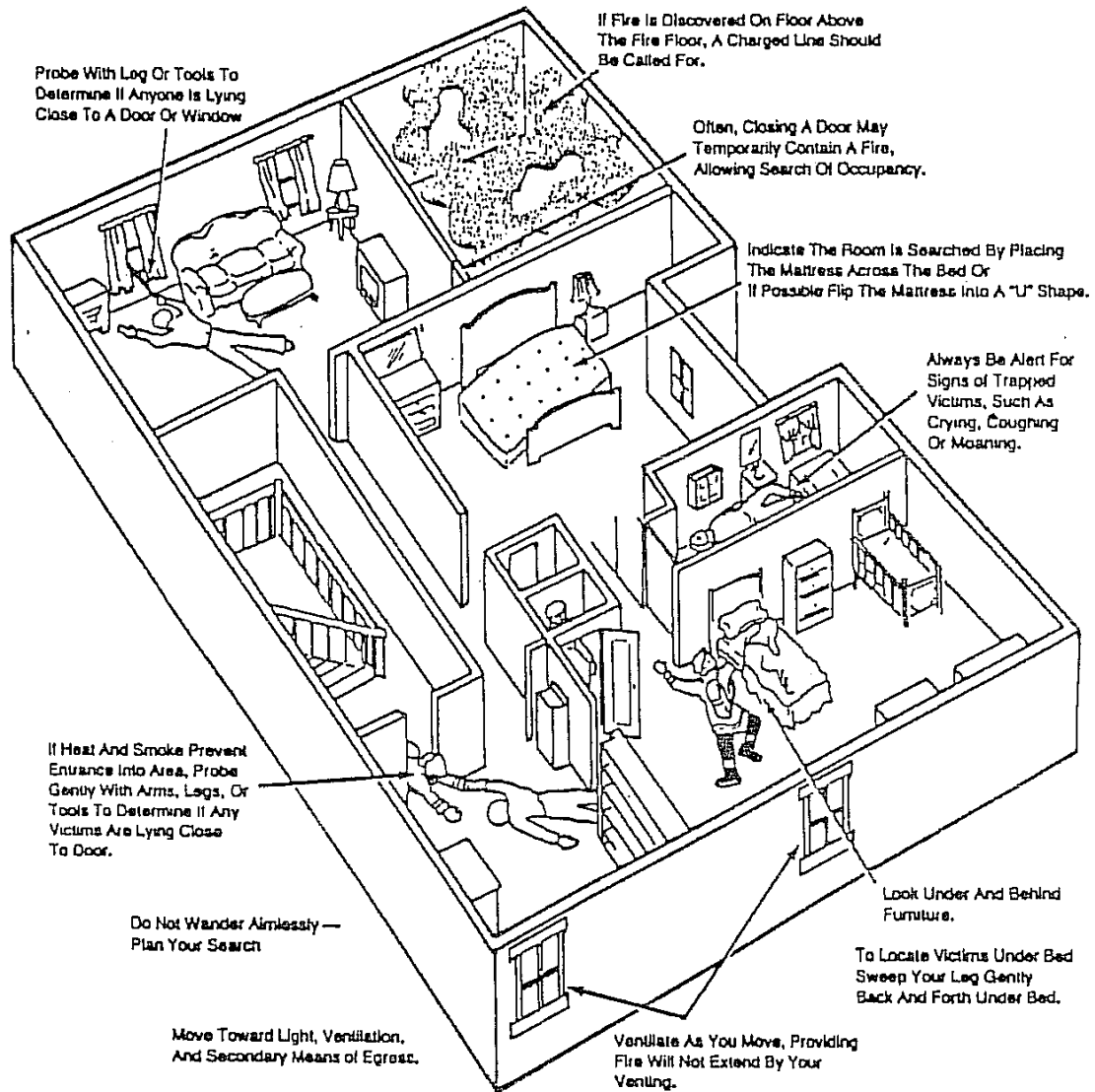
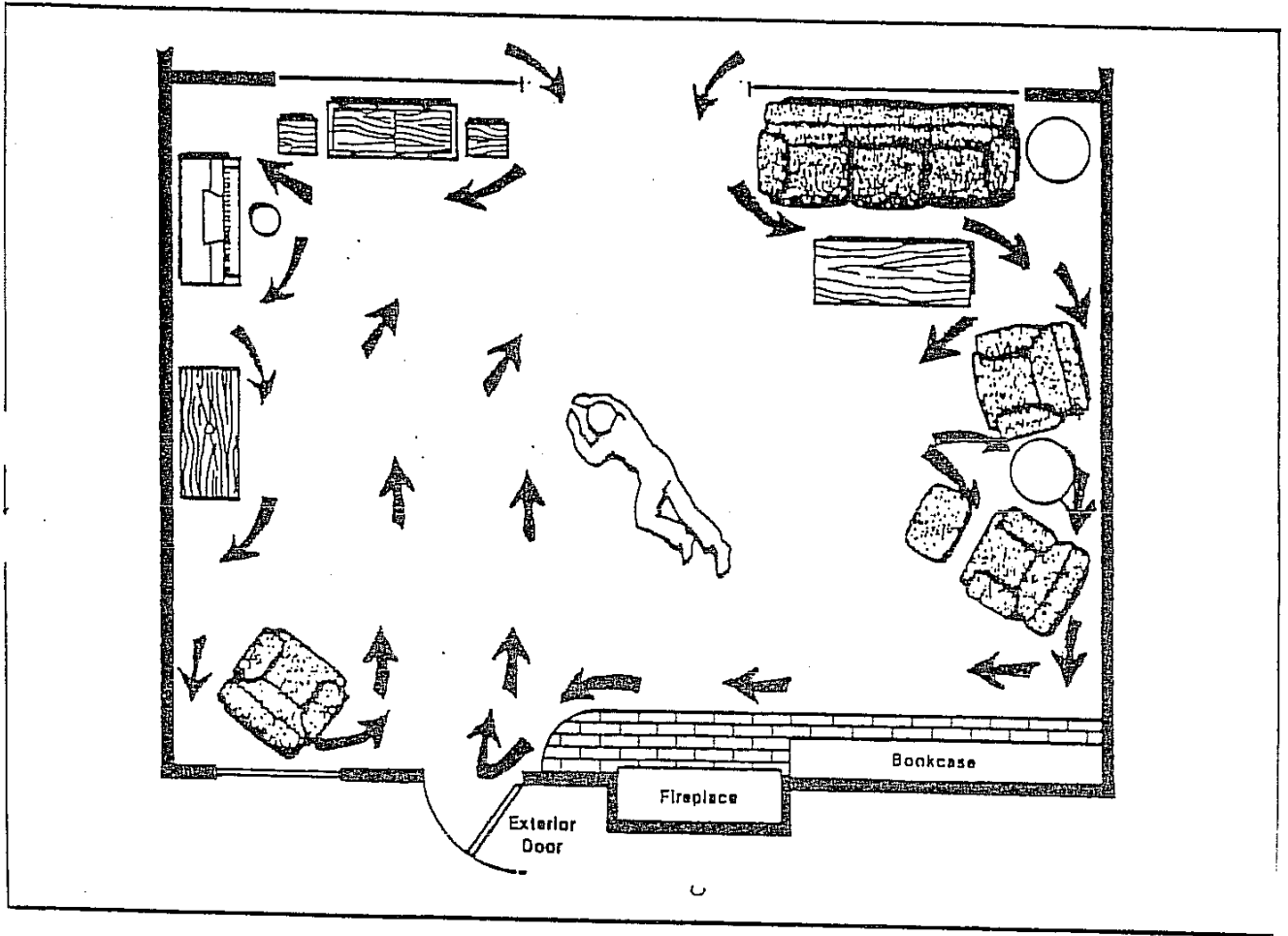


Figure 1



A standardized search procedure where all turns are made in the same direction.

Figure 2