

**ENGINE COMPANY PERSONNEL ASSIGNMENTS**

5. ENGINE COMPANY PERSONNEL ASSIGNMENTS**5.1 ENGINE COMPANY OFFICER**

5.1.1. The engine company officer will have more influence on the outcome of a fire operation than any other member on the scene. The attitude this officer displays will become a model for the unit's firefighters to follow. The manner in which orders are given and assignments made sets the tone for the entire engine company operation at a fire or emergency. Officers who are serious about training and expect a high level of professionalism from the members of their company will see it reflected in their unit's performance at drills, fires, and emergencies.

5.1.2 After the engine company officer has determined that a hoseline is needed, the location, route, and number of lengths required in the stretch should be relayed to the unit's members. Properly trained firefighters should be able to perform the following tactics without the officer's personal supervision:

- Hose estimate and removal from the apparatus.
- Positioning the apparatus at a serviceable hydrant.
- Connection of the apparatus to a hydrant.
- Stretching a hoseline.
- Supplying booster water if ordered.
- Operation of apparatus mounted large caliber stream (LCS) device.
- Supplying standpipe and sprinkler systems.

5.1.3 The first arriving engine company officer should consider the removal and placement in the street of a second hoseline if fire conditions indicate it is warranted.

5.1.4 After ordering the first hoseline stretched, the engine officer should enter the fire building and begin gathering information that will assist the unit in stretching rapidly and accurately to the fire area. This information should include:

- Handie-talkie transmissions from the ladder company.
- Type of stairway present (i.e. return, straight run, around elevator).
- Presence or absence of a wellhole.
- Difficulties caused by large numbers of fleeing occupants.

- 5.1.5 *If no ladder company is present, the Engine officer shall attempt to enter the IDLH when teamed up with another available member. He/she may only enter individually to address a known life hazard as per AUC 329.* If the ladder company is forcing the door to the fire area, the engine officer should proceed to the area immediately below the fire and:
- Determine the layout of the area (in multiple dwellings, layouts tend to be similar in each vertical line of apartments).
 - Look at the ceiling for signs of structural weakness or holes.
 - Look out a window to determine the location and extent of the fire on the fire floor.
 - When returning to the fire floor, look out a stairway window in order to gain a different view of the fire floor from below.
- 5.1.6 The gathering of information by the engine company officer takes little time. The advantages gained will result in proper line placement and rapid line advance to the seat of the fire.
- 5.1.7 While gathering information concerning the hoseline stretch, the engine officer should be alert to building occupants with information relative to persons trapped or distressed. If persons were reported trapped on the initial alarm, or if information or statements indicate this possibility, the engine officer should determine the following:
- Where are the people trapped?
 - How many people are trapped?
 - Are the trapped persons children or adults?
 - Are the occupants normally home at his time of day?
- 5.1.8 While searching within a fire area, interior doors that can be used to help confine the fire until the arrival of the hoseline should be closed as soon as possible.
- 5.1.9 If the entrance door to the fire area (for example: this may be the apartment door in a multiple dwelling or a bedroom door in a private dwelling) is found open by the engine officer and entry *is not possible*, it should be closed immediately to prevent the products of combustion from entering the hallway and contaminating the upper floors and preventing the escape or removal of civilians from above the fire. Door control is **critical** to the safety of any firefighters operating on the floors above the fire.
- 5.1.10 Upon arrival of the nozzle team at the entrance to the fire area, the officer should assure that each fire fighter is properly equipped with bunker gear, helmet, gloves, mask and hood. After ascertaining that sufficient hose has been stretched and flaked out, the officer should call for water via handie-talkie and see that the line is properly bled of trapped air.

- 5.1.11 Prior to opening the door to the fire area for advancement of the line, the engine officer **must** assure that no firefighters will be exposed in the hallway or on the stairs above as the fire attack is initiated. This can be done via handie-talkie or in person. When the door to a fire area or fire apartment is opened, particularly in buildings equipped with thermal pane windows that *have not* self vented, there exists the possibility that fire will flash outward and upward and seriously expose or burn any firefighters operating in unprotected positions above the fire.
- 5.1.12 Immediately before moving into the fire area with the hoseline, the engine officer should relay to the nozzle team information gathered while the line was being stretched. This information might include phrases such as: "two rooms, left, rear," "straight down the hall, second room on the left" or "holes in the floor, stay to your right hand wall."
- 5.1.13 The nozzle team *must* begin every interior fire attack through the door to the fire area crouched low, near the floor, *regardless of conditions*. A sudden ceiling collapse, rapid self-venting or a fire driven by wind could create a blowtorch effect at the entrance door and seriously injure any firefighter in its path. After entry is made into the fire area, the engine officer can evaluate conditions and adjust or modify the method of advance used.
- 5.1.14 Communication during the fire attack may be almost impossible due to the noise created by the stream striking walls, ceilings and furnishings. However, the engine officer must monitor the handie-talkie for critical information that may affect the nozzle team. This includes ventilation delays, water supply difficulties, collapse potential and "mayday" and/or "urgent" transmissions.
- 5.1.15 The engine company officer can provide the IC with vital information that may affect how the fire operation is handled. Messages such as those listed below should be transmitted to the IC, other units, or individual members on the scene:
- "Start an 1 3/4-inch line to the fourth floor."
 - "We have/don't have a wellhole."
 - "Start water."
 - "We have two rooms knocked down, making progress."
 - "Main body of fire has been extinguished."
 - "Increase/decrease pressure."
 - "We need a back-up line."
- Note the short and concise wording used in these messages.
- 5.1.16 The engine officer initiating communication with the IC or other member should expect an acknowledgment. Likewise, the engine officer should acknowledge all messages received. This two way exchange of information will provide all members on the scene with a different perspective of the operation. For example: "Engine 98 to Battalion 78, main body of fire has been extinguished." Reply: "Battalion 78 to Engine 98, be advised that fire is still issuing from one window at the front of the building."

- 5.1.17 During the advance of the hoseline, the engine officer must constantly monitor the nozzle team's progress and the conditions around them. The protection afforded by bunker gear, masks, and hoods tends to insulate firefighters from the hostile fire environment which could cause members to penetrate unknowingly into severe conditions.
- 5.1.18 As the hoseline is advanced into the fire area, the engine officer should communicate orders and directions to the nozzle team using as few words as possible. As progress is made, the nozzle team can be encouraged with statements such as "you got it," "move in" and "good knockdown." The nozzle team should be advised of their progress and given estimates of how much fire remains to be extinguished.
- 5.1.19 Engine company officers should develop a communication system with the nozzle firefighter for use when voice communications are impaired due to stream impact noise, power saw operations, opening up and ventilation noise. The following system of touch signals can be used in conjunction with verbal commands to relay orders:
- Opening or closing the nozzle--One or two slaps on the back or shoulder.
 - Direction of stream--Tug or pull on the arm or nozzle, either left or right.
 - Advancement of hoseline--Steady push on back or mask cylinder.
 - Halt or stop advance--Pull back on shoulder, bunker coat or mask assembly.
- 5.1.20 The engine company officer's position when supervising the nozzle team must remain fluid. Due to conditions such as tight quarters, stock or furniture impediments, forays to vent or search, and the nozzle team making turns and bends, the officer may have to drop back on the line, switch sides or even move ahead of the nozzle momentarily to allow for optimum nozzle positioning.
- 5.1.21 If an emergency situation develops which requires the immediate withdrawal of the nozzle team, the officer or other member aware of the situation should indicate this fact by using four (4) strong slaps on the shoulder of the other members and then pull them in the direction of retreat.
- 5.1.22 After the main body of fire has been extinguished, the engine officer should order the nozzle shut down. This action allows heat and smoke to rise and vent and any remaining fire to "light up" and indicate those areas requiring follow up extinguishment. At this time the officer can check adjoining rooms or areas for fire extension.

- 5.1.23 When conditions permit, the engine officer may order a fog or broken stream directed out a window in the fire area to assist in removal of heat and smoke conditions. This action will also make search and overhaul operations easier. If the main stream tip (MST) was used to extinguish the fire, an effective broken stream can be produced for venting purposes by removing the tip and partially shutting down the control handle. The stream is directed out the selected window with the nozzle held 4-5 feet back from the window and the stream filling the opening. If the FT-2 was used for extinguishment, the tip is adjusted so a fog pattern fills the window opening and is operated similar to the MST.
- 5.1.24 The nozzle team is composed of the nozzle and back-up firefighters under the leadership of the officer. While some decision making authority is delegated to the nozzle firefighter, it must be understood that any actions taken are under the strict supervision of the officer in command of the line. The officer must exercise the power of command under fire attack conditions and expect prompt, implicit and unqualified response.
- 5.1.25 The following listed tactics are of such importance to fire control efforts that the decision to implement them is reserved for the engine officer alone.
- Calling for water (charging the line).
 - Opening the nozzle.
 - Initial stream direction (at ceiling, seat of fire etc.).
 - Direction of team advance.
 - Initiating line advance.
 - Stopping line advance.
 - Stream shut down.
 - When adequate “knock down” has been achieved.
 - Use of stream for cooling.
 - Use of fog for attack.
 - Use of fog or broken stream for venting.
 - Amount of water used.
 - Assignment of engine firefighter for venting or search.
 - Relief of nozzle team.
 - Need for relief of the unit.
 - Necessity to back the hoseline out.

5.1.26 Decisions that may be delegated by the engine officer to the nozzle team include:

- Direction of stream.
- Rate of advancement.
- Opening nozzle in an emergency.
- Partial shut down of nozzle to reduce nozzle reaction and regain control.
- Calling for more line.
- Sweeping floors with stream.

5.1.27 The high level of physical activity required for firefighting is well documented and the debilitating effects on firefighters must be recognized by company officers. The engine company officer should evaluate the members of their unit during and after the fire attack and promptly relieve individual members or request through the IC relief for the entire unit.

5.2 THE ENGINE COMPANY CHAUFFEUR (ECC)

5.2.1 The primary responsibility of the ECC is the safe delivery of the personnel, apparatus and equipment to a reported fire or emergency and the delivery of water to the operating firefighting force.

5.2.2 The ECC must be thoroughly familiar with the engine apparatus, all the tools and equipment carried on board and the layout of the hose beds. Knowledge of the amount and size of hose carried and stretched at operations will assist the ECC in determining the proper pressures required. The ECC must control how many and what type streams and hoselines are supplied and should confer with and advise the officer when necessary.

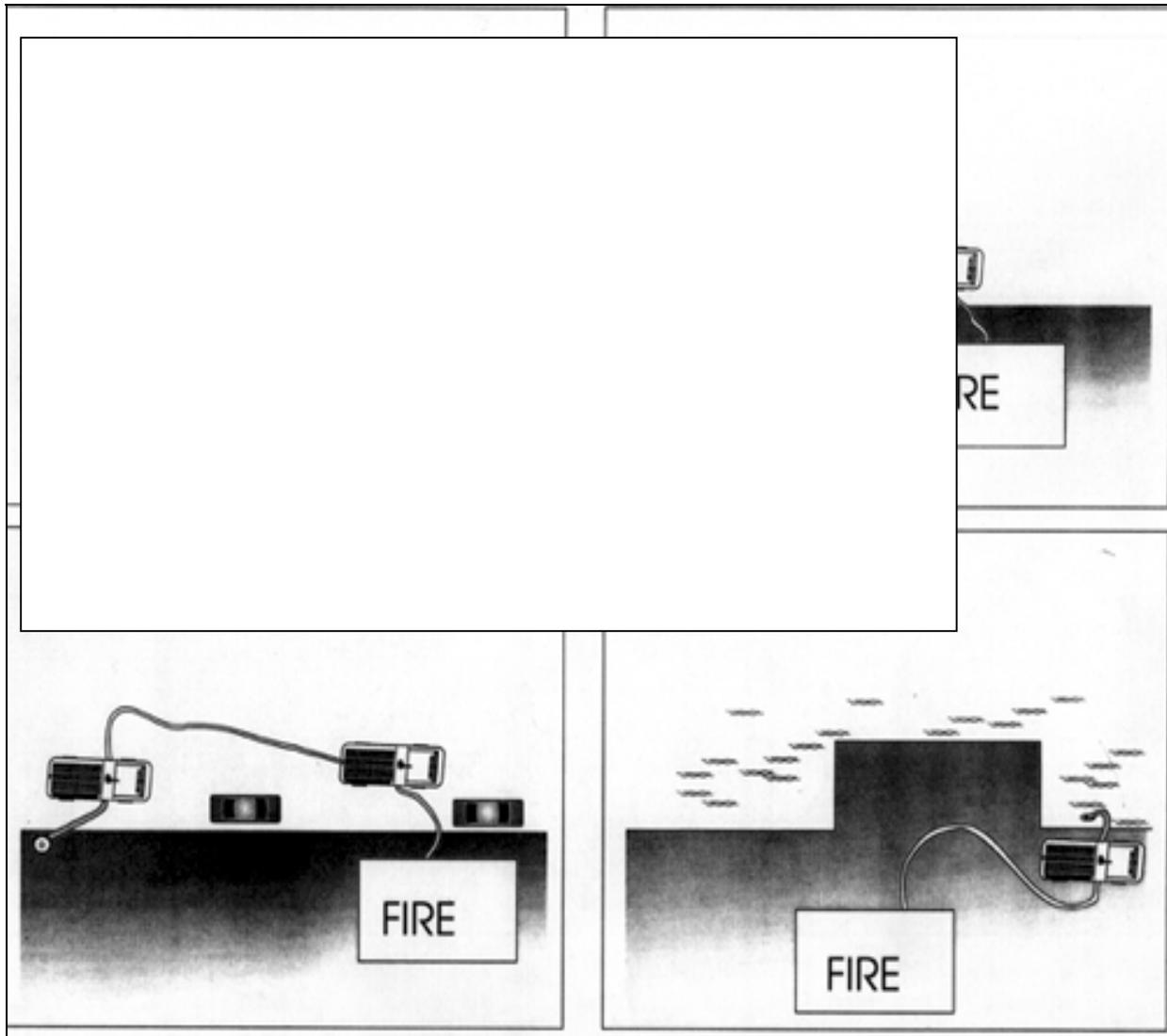
5.2.3 The ECC must monitor the handie-talkie for instructions and information that may require action and be ready to assist members in distress if ordered by the IC.

5.2.4 Engine company apparatus should be positioned as close as possible to the fire building to reduce the time, effort and number of lengths needed for the stretch. This tactic requires a coordinated effort between the ECC and the Engine Company officer and the first arriving ladder company for optimal placement (see Section 3.6 “Apparatus Positioning”).

5.2.5 ECC’s must recognize the need for and initiate supply line operations when required. When arriving other than first due, the ECC must remain aware of water supply needs of units already on the scene.

5.2.6 Tactics that ECC’s must be capable of performing include:

- Back stretch (Fig. 5-1)
- In-line pumping (ILP) (Fig. 5-2)
- Relaying water (Fig. 5-3)
- Drafting (Fig. 5-4)



- 5.2.7 The ECC should position the apparatus for a backstretch whenever possible. A hydrant in the immediate vicinity of the fire building may be used if it allows for a rapid stretch and will not interfere with ladder company positioning.
- 5.2.8 When performing a backstretch, even if an obstructed hydrant is encountered, connection to such hydrants can usually be accomplished using a length of 3 1/2 inch hose which must be carried and ready for this purpose or the 35 foot yellow hydrant connection.

Note: WHEN STRETCHING HOSE LINES OFF THE APPARATUS, THE APPARATUS SHOULD BE POSITIONED SO THAT IT WILL NOT INTERFERE WITH LADDER COMPANY POSITIONING.

5.2.9 In addition to apparatus response and placement, the ECC must:

- Know the unit identity of companies being supplied.
- Know which discharge gate is supplying each unit.
- Know the location and status of nearby operating engine companies.
- Know the location and serviceability of nearby hydrants.
- Observe the condition of all hoselines stretched.
- Be familiar with operating controls of ladder apparatus positioned near the fire building.
- Be prepared to deal with water loss situations.
- Ensure no apparatus or vehicles park on hoselines.
- Ensure that no tormentors or outriggers are lowered on hoselines.
- Monitor apparatus pump panel.

5.3 THE NOZZLE POSITION

5.3.1 The firefighter assigned the nozzle occupies one of the most challenging and dangerous positions on the fireground. The duties associated with the nozzle position routinely take this firefighter in close proximity to the fire and require a determined and experienced member.

5.3.2 The nozzle is assigned by the officer at roll call along with the other engine company positions. The engine officer retains the flexibility to alter the assigned positions in order to allow a less experienced firefighter to work the nozzle at a minor fire where valuable “on the job” training can be gained.

5.3.3 The nozzle firefighter stretches the first length of hose with the nozzle attached via the route and to the location as ordered by the officer. This location should be a safe area in proximity of the fire area such as a stairway landing, hallway or adjoining area.

5.3.4 After flaking out the line in preparation for its advance, the nozzle firefighter should complete donning all required protective equipment including opening of the mask air cylinder and activation of the PASS device.

5.3.5 When the engine officer calls for water the nozzle firefighter must prepare to bleed the line of any trapped air. The nozzle can be cracked slightly open while the water is filling the line or it can be opened fully and closed quickly after water reaches the nozzle.

5.3.6 The nozzle firefighter should **never** enter the fire area without water. To do so could allow the fire to rapidly extend and overtake the nozzle team causing burns to them and any firefighters operating behind or above them.

5.3.7 When preparing to enter the fire area with a charged hoseline, the nozzle firefighter should ensure that if an adjustable fog/straight stream tip is being used, it is in the straight stream position (rotated to the right). If the solid stream tip is being used the 1/2 inch outer stream tip (OST) must be removed.

- 5.3.8 If the engine company is present on the fire floor prior to opening the door to the fire area the firefighters assigned the nozzle and back-up positions, as well as the officer, should position themselves on the same side of the entrance and remain low. When the entrance door is opened the heat, smoke and toxic gases from the fire should be allowed to “blow.” As the smoke lifts, the nozzle firefighter may be able to look into the fire area at floor level and observe the room layout. Once the nozzle is opened, the thermal layers are disrupted and visibility is reduced significantly.
- 5.3.9 Once the nozzle team has water in the attack line and the door is opened, entrance is made into the fire occupancy. If the actual fire area is an interior room the nozzle firefighter must recognize this and advance as close as possible to the fire before opening the nozzle.
- 5.3.10 As a general rule, the nozzle should not be opened on smoke. If fire or high heat is encountered the nozzle can be used to cool and push the fire gases back toward the fire area by directing it upward toward the ceiling using a rapid side to side or clockwise motion.
- 5.3.11 After making the initial entrance into the fire area the nozzle team should move to either side of the doorway. This action is taken to remove these members from the flue like conditions that develop when the entrance door is opened. This condition becomes even more pronounced when the fire has not vented via windows and the entrance door is the first opening into the fire area.
- 5.3.12 While operating the line the firefighter assigned the nozzle position should hold the nozzle at arms length, out in front. This position allows the firefighter to redirect the nozzle quickly by simply bending the several feet of hose in the desired direction.
- 5.3.13 As the attack line is advanced into the fire area, the floor must be swept with the stream. This action cools hot plaster or burning debris and removes other potentially dangerous objects such as broken glass and drug paraphernalia from the path of the advancing firefighters. A change in the sound of the stream as it sweeps the floor could indicate the presence of an opening such as a hole, a stairway or an elevator shaft.
- 5.3.14 The manner in which a firefighter physically advances the hoseline may depend on the conditions encountered. There are several methods that can be used, each with their own advantages.
- **Crawling** - This method is useful where heat conditions require a very low approach to the fire area.
 - **Duck walking** - This tactic is useful where rubble or debris which cannot be swept with the stream may cause injury or difficulty to the nozzle team. In housing projects or office buildings with concrete floors, duck walking keeps scalding water, a consequence of the fire attack, from absorbing into the bunker pants and burning firefighters knees.

- **Leg forward (or outstretched leg)** - This method can be used where the integrity of the floor is in doubt. The outstretched leg is used to feel for holes in the floor before the full weight of the firefighter moves forward. Probing with the leg forward will also help the nozzle firefighter recognize the presence of descending stairs, ramps, or open shafts. This technique is recommended for commercial occupancies.

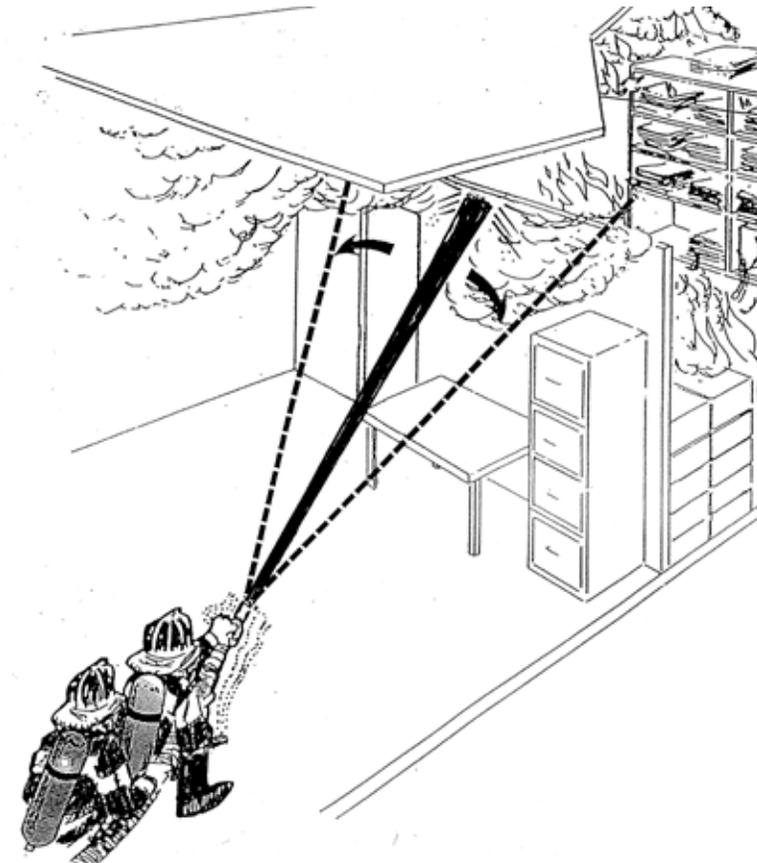


Fig. 5-5

5.3.15 The following nozzle handling techniques for directing the stream during fire attack are important for the nozzle firefighter to know and understand.

- A. When operating the stream as the advance is made, the stream should be directed forward and upward, striking the ceiling and deflecting the stream toward the fire area (see Fig. 5-5).

The deflected water will:

- Cover a greater area.
- Break up and cool superheated combustible gases at ceiling level.
- Provide greater heat absorption by breaking up on impact and exposing more water surface area to the heat.
- Prevent “rollover” of the advancing fire.
- Prevent development of “flashover” by cooling the upper levels of the fire area.

- B. Rapid side to side or clockwise rotation of the nozzle pushes the heat, fire and steam ahead of the nozzle team.
 - C. As progress is made, the initial angle of the stream can be lowered and the stream can be directed toward the main body of fire.
 - D. Minimum steam generation at the lower level of the passage or hallway is desirable for rapid advance, therefore impacting side walls with streams should be minimized at lower levels. The steam generated initially at the upper levels will be pushed ahead with the heat and fire. Maintaining an adequate rate of flow will condense the steam and cool the fire gases ahead of the stream and will carry away the lower wall heat in the run-off.
 - E. The stream should not be operated directly overhead. This can cause hot water and debris to fall on the firefighters below. There are, however, several *emergency* situations which may justify this tactic:
 - When the room “lights up” overhead.
 - Fire rolls overhead or from behind.
 - F. When stock, furniture, partitions, vehicles, machinery or other obstructions block or prevent the stream from hitting the main body of fire, use the ceiling, walls or other stable, stationary objects to deflect water onto the fire.
 - G. Avoid knocking down stock with the stream whenever possible as it will conceal or extend fire and impede the hoseline advance. Fallen stock could also make it difficult for members to exit the fire area or back the hoseline out.
- 5.3.16 If rooms to either side of a hallway must be extinguished while advancing toward the main area of involvement, the stream should be operated well ahead of the line prior to turning to operate into the side rooms. This action is necessary in order to push back the advancing fire sufficiently to allow the nozzle team to safely reposition and operate into the side rooms.
- 5.3.17 **A cardinal rule of engine operations is DON’T PASS FIRE.** When advancing an attack hoseline through a fire area consisting of several rooms, it is usually only necessary to operate the stream from the doorway of each room/area. By utilizing the reach of the stream, the fire can be knocked down in these rooms and the hoseline can be advanced rapidly to extinguish the remaining areas. This tactic may leave smoldering debris or window frames but there should be no visible flame in the areas passed. (The term *knock down* means to have control of the fire area without complete extinguishment)
- 5.3.18 As the attack hoseline is advanced through the fire area *all* doors must be opened to assure that the nozzle team does not unknowingly pass an area involved in fire. Closed doors to closets, stairways and other rooms may contain hidden or extending fire which can burn through or erupt behind the nozzle team cutting off their escape route. Hoselines can also be burned through leaving the engine company without water and fire in front and behind them.

- 5.3.19 There are several situations which could result in the advance of the attack hoseline being halted or slowed:

Situation #1 - Fire will not Darken Down or Cool Down

An engine company is making good progress advancing through a fire area and is suddenly stopped or slowed by fire that will not cool down or darken down.

Possible causes for this situation are:

- The stream is not adequately penetrating into the fire area.
- The stream may be inadequate for the size/intensity of the fire.
- A heavy body of fire may exist in another area which the stream is incapable of reaching.

Possible solutions:

- The stream direction may need to be adjusted to enter the room more completely or an advance of a few more feet may be necessary to open another avenue or direction of attack.
- The gallons per minute (GPM) flow may be insufficient due to friction loss, low pump pressure or kinks in the line. A handie-talkie message to “increase pressure” or “get the kinks” may result in an increased flow and faster knock down of the fire.
- If fire exists in an area which is incapable of being reached by this hoseline such as the floor below or an adjoining area, this attack line must make a stand at this point and hold the fire until a back up line can be stretched. The second hoseline can be stretched to the other area involved or can be advanced together with the first attack hoseline to press the attack into the fire.

Situation #2 - Fire has Darkened Down But Will Not Cool Down

Possible causes for this situation are:

- The material and furnishings in the fire area have not been completely extinguished.
- Fire has extended into walls, floor and ceiling spaces and continues to burn there.
- Inadequate ventilation of the fire area.

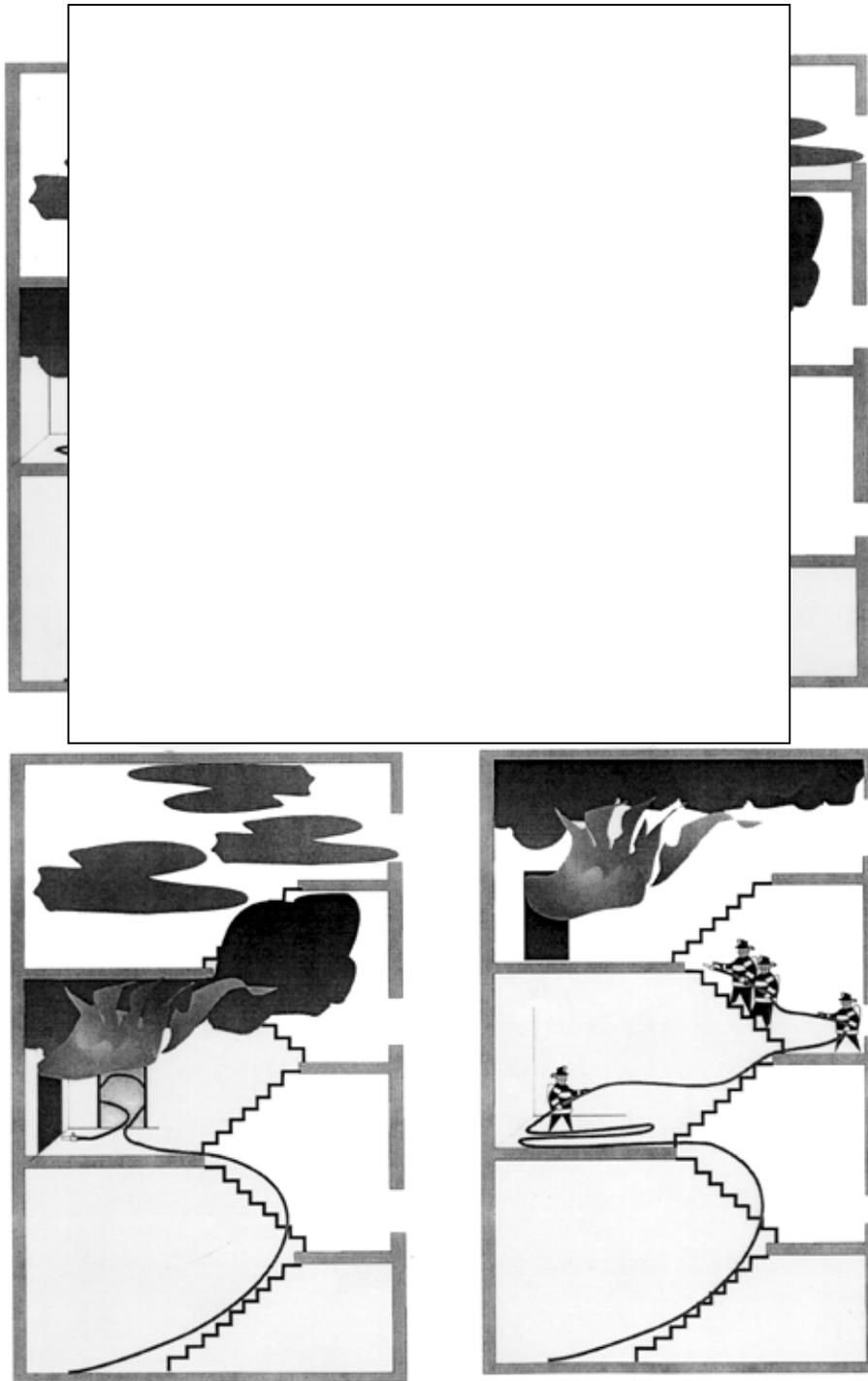
Possible solutions:

- The areas where the fire was “knocked down” may need additional water application to *completely extinguish* all material, furnishings and structural components.
- Wall, floor and ceilings must be opened up to expose and extinguish any hidden fire.
- Initial or additional ventilation must be performed including the use of a fog or spray stream by the engine company.

- 5.3.20 If it becomes necessary to withdraw an attack hoseline from a position due to fire intensity, the stream **must** be kept in operation and the line should be backed out. Firefighters withdrawing a hoseline from an interior position should **never** turn their backs on the fire.

5.4 THE BACK-UP POSITION

- 5.4.1 The member assigned the back-up position is the second firefighter on the hoseline. This firefighter moves toward the fire behind the nozzle firefighter providing physical as well as moral support.
- 5.4.2 A major function of the back-up position is to flake out the hoseline while waiting for water and to facilitate the hoselines advance once it is charged.
- 5.4.3 Flaking out a hoseline can be accomplished using several methods depending on the conditions encountered. The following options can be used:
- The hose is flaked up the public hall stair above the fire floor. After the hoseline is charged the weight of the water in the line moving down the stairs will assist the firefighter assigned the door position feeding the line into the fire area (see Fig. 5-6).
 - The hoseline is flaked out in the hallway on the fire floor. In buildings with large halls on each floor such as “H” type buildings and newer apartment houses, this option is effective (see Fig. 5-7).
 - The hoseline is flaked out into an adjacent or opposite apartment on the fire floor. This tactic is useful when a small hallway is encountered and the hose cannot be laid up the stairs (see Fig. 5-8).
 - The hoseline can be flaked out either wholly or partially in the public hallway on the floor immediately below the fire floor. This option is utilized when the volume or intensity of fire prevents access to the fire floor for flaking out the hoseline (see Fig. 5-9).
- 5.4.4 It is the back-up firefighters responsibility to absorb as much nozzle reaction as possible. By performing this function, the nozzle firefighter is able to advance and handle the nozzle without having to fight against the backward thrust of the operating stream.
- 5.4.5 In order to effectively operate, the back-up member must take a position as close as physically possible behind the nozzle firefighter. This arrangement allows the back-up member to exert forward thrust on the hoseline to counter the nozzle reaction.
- 5.4.6 The back-up firefighter must maintain a firm grip of the advancing hoseline at all times. If this member was to lose control of the line, the reaction of the opened nozzle could pull it through the grasp of the nozzle firefighter leaving the nozzle team unprotected from the fire . The unrestrained hoseline would also become a hazard until it was controlled or shut down.



- 5.4.7 When the nozzle firefighter wants to change the direction or elevation of the stream, the back-up member must maneuver the section of hose behind the nozzle firefighter in the opposite direction. The back up member must stay alert to the intentions of the nozzle firefighter and be able to quickly reposition behind that member.
- 5.4.8 During the initial hoseline advance, the back-up firefighter must maintain the hoseline below the level of the operating nozzle and keep the line as straight as possible.

5.5 THE DOOR POSITION

- 5.5.1 The third firefighter on the hoseline occupies the door position. This firefighter, like the nozzle and back-up firefighters removes approximately one length of hose from the hose bed. Following the back-up firefighter, the door firefighter carries the hose to a drop point, then lightens up on the line while proceeding to the fire area.
- 5.5.2 Upon arrival at the entrance to the fire area, the door firefighter assists with flaking out the hoseline in preparation for it being charged.
- 5.5.3 After the officer calls for and receives water at the nozzle, the nozzle team enters the fire area. At this point the firefighter at the door position slowly feeds line into the advancing nozzle team.
- 5.5.4 This member must *not* push the hoseline to the nozzle team, but instead provide enough slack in the line so that they can advance easily.
- 5.5.5 The door firefighter should maintain a *bow* or *rise* in the section of hoseline between the door and the nozzle team (see Fig. 5-10). This tactic will allow the door firefighter to monitor the advance of the nozzle team by observing the straightening of the hoseline. As the hose straightens the member restores the bow in the line.
- 5.5.6 The door firefighter should conserve mask air, if conditions allow. If either member of the nozzle team requires relief or is injured, the door firefighter can quickly move into position and the attack on the fire can continue. The door firefighter should consider leaving the flashlight on which would serve as a guide for members exiting the fire area.
- 5.5.7 An important task of the door position is to monitor and observe heat, smoke and fire conditions at the entrance doorway. Undetected or extending fire could suddenly erupt or appear between the entrance and the nozzle team. The door firefighter is in a prime location to detect this situation and warn the nozzle team.



Fig. 5 - 10

5.6 THE CONTROL POSITION

- 5.6.1 The last firefighter on the hoseline occupies the most important control position. The control firefighter's primary function is to assure that the correct amount of hose is stretched in order that the nozzle reaches the seat of the fire. It is necessary that this member have the experience and knowledge to correctly estimate the number of lengths of hose required for the type of stretch ordered by the officer. ***The control firefighters of the first and second engines must remember that until the arrival of the FAST unit they will be the safety team as per AUC 329.***
- 5.6.2 This firefighter's objective is to minimize the number of lengths stretched in order to reduce friction loss and kinks in the line. Excessive hose increases both friction loss and the potential for kinks which can cause a considerable reduction in both flow (gpm) and stream quality (compactness and reach) at the nozzle. Kinks also require higher engine pressures which increases the possibility of a burst length.
- 5.6.3 The success of an engine company hoseline operation relies greatly upon the actions of the control firefighter. The practice of assigning this important position to detailed ladder company firefighters or engine company firefighters who are unfamiliar with the units apparatus or building types, should be avoided. Where possible, only the most experienced and knowledgeable firefighters should be assigned the control position. This will assure an accurate hose estimate and removal from the apparatus. A hoseline that is stretched quickly but in an uncontrolled fashion may result in excess hose and kinks or insufficient hose and a short stretch.
- 5.6.4 The control firefighter must develop good judgment in estimating the hose needed for various stretches by being familiar with the types of buildings in the unit's response area.
- 5.6.5 Factors that must be considered before a hoseline is stretched include:
- Distance from apparatus to building entrance.
 - Distance from building entrance to foot of stairs.
 - Type of stairs i.e. straight run, enclosed, returns, around elevator, presence/absence of a well hole.
 - Number of floors to ascend or descend.
 - Distance to fire area from stairs/entrance.
 - Size of fire area.

- 5.6.6 In order to keep track of the number of lengths of hose removed from a units hose bed by its members or others assisting in the stretch, the control firefighter **must** remain last in the stretch. Regardless of whether they are assisted by another unit or they perform the stretch alone, the control firefighter must complete the control function prior to initiating any other tactics. This is especially true when using the back stretch. In this situation the ECC is waiting for the hose to be removed prior to proceeding to a hydrant. If the control firefighter was to momentarily leave the back step area to assist in the stretch, the ECC will be delayed in proceeding to and connecting to a hydrant, which delays water to the nozzle. Another and more serious situation can occur if the ECC observes the control firefighter leaving the back step and assumes that enough hose has been removed. If the ECC proceeds to the hydrant and sufficient hose has not been removed a short stretch will result. Both of the above situations illustrate the critical importance of the control firefighter completing the hose estimate and removal prior to initiating other tactics.
- 5.6.7 When the second due engine arrives at the scene and a hoseline is being stretched, the first due control firefighter should not delegate or transfer the control position to the second due control firefighter. Instead, the first due control firefighter should maintain a position at the hose bed and complete the hose estimate and removal. The arrival of the second engine is not justification for the first due control firefighter to leave that position. Rather it eliminates the reason to leave, since there are now an additional 3 or 4 firefighters to assist with the stretch.
- 5.6.8 The control firefighter's hose estimate function is considered complete when one of the following occurs:
- A. The required number of lengths is removed from the hose bed, the line is broken, and connected to a pump discharge outlet. This scenario would occur when:
 - A hydrant in close proximity to the fire building is used. In this case the control firefighter may assist the ECC with hydrant connection.
 - ILP is used and the engine apparatus will remain near the front of the fire building.
 - B. The required number of lengths is removed from the hose bed and the control firefighter signals the ECC to proceed to a more distant hydrant (back stretch).

5.6.9 After completing the initial hose estimate, the control firefighter must perform the following additional tasks:

- Assist the ECC with the hydrant connection. This is done when the fire is located on a lower floor and the hydrant is in close proximity to the fire building.
- Feed slack toward firefighters ahead on the line. This includes pulling hose around parked cars, trees and building entrances where hose often gets pinched or couplings snagged.
- Flake out any hose between the apparatus and the building entrance door, paying close attention to sharp bends or folds, which may become kinks once the hoseline is charged.
- Check any doors that the dry hoseline is stretched through to assure that they are chocked open. If a door were to close over a dry hoseline that was subsequently charged, it would be extremely difficult to free the hose and may result in a drastic reduction in flow.
- Eliminate kinks in the charged hoseline while moving toward the fire area. This may require repositioning of hose in halls and stairways and straightening any bends that are restricting the water flow. It must be remembered that a single 90° kink in a 1 3/4 inch hoseline can result in a loss of 20 gpm or more. Successive kinks in a hoseline produces an accumulative affect on reducing flow and a hoseline with 3 kinks, for example, could lose 90 gpm or more, resulting in an ineffective and unsafe fire stream.

5.6.10 If the control firefighters must discontinue their primary duties and operate as the safety team (as per AUC 329), they shall inform the ECC of the extent of their duties completed and that they are proceeding to the IDLH area to render assistance.

5.7 THE SECOND TO ARRIVE ENGINE COMPANY

5.7.1 In keeping with the Department's goal of teaming engine companies to the greatest degree possible, the general duties of the second to arrive engine company are as follows:

- Assist with the stretching of the initial handline.
- Assure that the first due engine is connected to an adequate water supply.
- Relieve the first due engine company personnel as required.

5.7.2 The specific duties of the second due engine officer include:

- Water resource officer for the first hoseline.
- Provide a communications link between first due engine and IC.
- Control the number of members on the fire floor, limiting it to those necessary and directing others to appropriate staging areas below the fire floor.
- For reasons of safety, keep track of members going to the floor(s) above the fire. All members going to the floor(s) above the fire, before the fire is controlled, should communicate their identity to the second due engine officer before proceeding above.

5.7.3 The second due ECC shall:

- Position their apparatus at a hydrant and **test** it prior to assisting the first due ECC.
- Monitor the Department radio and answer for the Battalion or Division aide if either fails to respond to repeated calls from the dispatcher.