ENGINE COMPANY OPERATIONS

PROTECTION OF LIFE

a. The protection of life is the primary consideration at any fireground operation. Engine companies are sometimes confronted with life saving operations upon arrival. Life saving operations are placed ahead of firefighting when sufficient firefighters are not available to do both, as is the case when no ladder company is on the scene. Judgement is a key factor when confronted with this situation. The best lifesaving measure may be a prompt attack on the fire.

b. A life hazard, visible upon arrival, must be addressed. However, immediate rescue attempts by the first arriving engine company without simultaneous stretching and positioning a hoseline should be attempted only in **extreme** situations.

c. Factors impacting on the decision to attempt an immediate rescue include:

- Occupants endangered by being in the immediate vicinity of the fire.
- Number of persons trapped.
- Occupants threatening to jump.
- Means of egress cutoff by fire.
- Ability to reach occupants with portable ladder.
- Anticipated arrival time of the first due Ladder Company.

d. Actions that the first arriving engine company officer can implement to protect endangered occupants include:

- Position a hoseline between the fire and the endangered occupants.
- Ventilate to draw fire, heat, and smoke away from endangered occupants.
- Give verbal instructions and assurances to the occupants
- Close doors to limit the spread of smoke.
- Ensure that incoming units are informed of the location of the endangered occupants.

LOCATING THE FIRE

a. Before any fire attack can be initiated, the exact location of the fire must be determined. This is the first stage of fire suppression.

- Refer to the radio for reported particulars, i.e. street address.
- Upon arrival, an exterior survey of the building should be conducted for visible flames, smoke, smoke-blackened windows, occupants in distress, etc.
- Solicit information from occupants exiting via the interior stairs.
- Listen to radio traffic from ladder company personnel.

b. Often the odor given off by burning materials, even if there is no visible smoke, may indicate what is burning and perhaps indicate where the fire might be located.

c. When the exact location of the fire has been determined it must be conveyed to the other units operating on the scene. The most direct route to the fire area must be relayed to the members stretching the initial hoseline.

CONFINING/CONTROLLING THE FIRE

a. Confining and controlling a fire is the second stage of the fire suppression effort and includes those actions taken to prevent the fire from extending beyond the area already involved. This is generally the immediate concern, and fulfills the role of placing a hoseline between the fire and the majority of the dwelling's occupants.
b. Confinement of the fire must take into consideration the intensity of the fire as well as the known or anticipated direction of fire spread. Be aware that the fire may be extending via pipe recess, voids, concealed spaces, etc.
c. Depending on the type of building and fire location, the first line stretched and operated may be committed to confining any fire extension while a second hoseline is utilized to extinguish the main body of fire.
d. In some situations the closing of a door or window may play a vital role in confining a fire while hoselines are being stretched to the location.

EXTINGUISHING THE FIRE

a. Extinguishment is the third stage of the fire suppression effort.
b. Initial extinguishment includes "knock down" of visible flames and readily apparent burning and smoldering material debris. Final extinguishment means that any fire uncovered by "opening up" and overhauling procedures has been extinguished.

ENGINE COMPANY PERSONNEL ASSIGNMENTS

The first engine company to arrive will take a **TACT 2 OFFENSIVE**, a single supply line and two 1 ¾ pre-connect hand lines, unless otherwise directed by the IC.

ASSIGNMENT AND POSITION	***EQUIPMENT***	***DUTIES***
1 – ***OFFICER*** • MAIN ENTRANCE TO OCCUPANCY	SCBA RADIO LIGHT OFFICER'S TOOL THERMAL IMAGING CAMERA	(a) SIZE-UP (b) LOCATE, CONFINE, EXTINGUISHMENT OF FIRE (c) DIRECT PLACEMENT AND MOVEMENT OF ENGINE COMPANY AND HOSELINES
2 – ***MPO*** • AT PUMPER	RADIO	(a) OBTAIN AND SUPPLY WATER (b) OPERATE PUMPS (c) MONITOR RADIO (d) INVENTORY EQUIPMENT
3 – ***NOZZLE*** • MAIN ENTRANCE OF OCCUPANCY	SCBA LIGHT	(a) STRETCH PRE-CONNECT (FIRST ATTACK LINE) (b) OPERATE LINE AS DIRECTED BY OFFICER
4 – ***BACK-UP*** • MAIN ENTRANCE OF OCCUPANCY	SCBA LIGHT	(a) ASSIST IN PRE-CONNECT STRETCH (FIRST ATTACK LINE) (b) BACK UP THE NOZZLEMAN (c) RELIEF OF NOZZLEMAN WHEN REQUIRED
5 – ***DOOR*** • MAIN ENTRANCE OF OCCUPANCY	SCBA LIGHT	(a) ASSIST IN STRETCH AND MOVEMENT OF FIRST ATTACK LINE (b) STRETCH A SECOND PRE-CONNECT IF NEEDED
6 – ***CONTROL*** • MAIN ENTRANCE OF OCCUPANCY	SCBA LIGHT RADIO	(a) INSURE WATER SUPPLY (b) ASSIST IN STRETCH AND MOVEMENT OF FIRST ATTACK LINE (c) STRETCH A SECOND PRE-CONNECT IF NEEDED

CONCEPT OF OPERATIONS

a. ENGINE COMPANY OFFICER

- Size-up to determine life hazard, location and extent of fire.
- Order first hoseline stretched and direct it's placement.
- Ensure a water supply has been obtained.
- Order second hoseline stretched and direct it's placement.
- Direct placement and movement of engine company personnel and hoselines.
- Protect life, confine and extinguish fire.
- Communicate with Engine Company, Ladder Company, and IC to ensure all assignments are covered.

b. ENGINE COMPANY CHAUFFEUR (MPO)

- Size-up to determine life hazard, location of fire, hydrant location and proper position of engine.
- Assist control firefighter with hydrant and supply line, then proceed to the fire.
- Engage pumps, and connect supply line to intake.
- Supply hoselines with proper pressure.
- Know the identity of companies being supplied and which discharge gate is supplying each company.
- Monitor the radio for instructions and information that may require action and be ready to assist members in distress if ordered by the IC.
- Observe the conditions of all hoselines stretched.
- Be prepared to deal with water loss situations.
- Monitor apparatus pump panel.
- Inventory all equipment.

c. NOZZLE POSITION

- Stretch the first length of hose with the nozzle attached via the route and to the location as directed by the officer.
- Flake out the line in preparation for its advance.
- When the engine officer calls for water prepare to bleed the line of trapped air.
- **Never** enter the fire area without water.
- If an adjustable fog nozzle is being used, ensure it is in the straight stream position.
- Once the Engine Company has water in the attack line and the door is open, entrance is made into the fire occupancy. If the actual fire area is an interior room the nozzle firefighter must advance as close as possible to the fire before opening the nozzle. As a general rule, the nozzle should not be opened on smoke.
- When the nozzle is opened on the fire area the stream should be directed towards the ceiling to prevent rapid ignition of heated expanding smoke by cooling the gases.
- 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 dangerous objects such as broken glass 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 or stairway.

- When operating the stream as the advance is made, the stream should be directed forward and upward, striking the ceiling and deflecting the stream towards the fire area. Never operate the stream directly overhead. This will cause hot water and debris to fall on the firefighters below. Rapid side to side or clockwise rotation of the nozzle pushes the heat, fire and steam ahead of the attack team.
- 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.
- **A cardinal rule of engine operations is: "DON'T PASS FIRE."**

d. BACK-UP POSITION

- The member assigned the back-up position is the second firefighter on the hoseline. This firefighter stretches the remaining hose out of the bed and moves toward the fire behind the nozzle firefighter providing physical support.
- 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.
- In order to effectively operate, the back-up member must take a position as close as physically possible behind the nozzle firefighter. This allows the back-up member to exert forward thrust on the hoseline to counter the nozzle reaction.
- The back-up member must maintain a firm grip of the advancing hoseline at all times.
- 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.
- 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.
- If the engine company is operating **without a "doorman" firefighter** and the nozzle firefighter requires relief or is injured the back-up firefighter will move into the nozzle position.

e. DOOR POSITION

- The third firefighter on the line occupies the door position. This firefighter insures all the hose has been removed from the hose bed. Following the back-up firefighter, the door firefighter then flakes out the line while proceeding to the fire area.
- Upon arrival at the entrance to the fire area, the door firefighter assists with the flaking out of the hoseline in preparation for it being charged.
- After the officer calls for and receives water at the nozzle, the nozzle team (nozzle, and back-up) enters the fire area. At this point the firefighter at the door position slowly feeds line into the advancing nozzle team.
- 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.
- The door firefighter should maintain a bow or rise in the section of hoseline between the door and the nozzle team. This tactic will allow the door firefighter to monitor

the advance of the nozzle team by observing the straightening of the hoseline. As the hoseline straightens the member restores the bow in the line.

- The door firefighter should conserve 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.
- 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.
- If ordered to stretch a second line by the officer, the door firefighter should do so as directed **only after the first line is in position and operating**. The door firefighter will assume the nozzle position responsibilities of the second line.

f. CONTROL POSITION

- The control firefighter's primary functions are to insure a water supply and assure the attack line is in position and operating.
- The control firefighter will wrap the hydrant specified by the MPO and notify the officer to proceed to the fire building. The control firefighter will only remain with the hydrant if the second due engine is not on the road or will be delayed (SOP 601).
- After ensuring a water supply, the control firefighter must perform the following additional tasks:
    - Feed slack towards 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 that may become kinks once the hoseline is charged.
    - Check any doors that the dry hoseline is stretched through to assure they are chocked open.
    - 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 water flow.
- If ordered to stretch a second line by the officer, the control firefighter should do so as directed **only after the first line is in position and operating**. The control firefighter will assume the back-up position responsibilities of the second line.

MINIMUM FIREFIGHTER RESPONSE

- When an engine company is responding without a full complement of firefighters the IC must be notified and the following shall be followed:
    1. Five members responding on the first due engine:
        - The door position will be eliminated and the control position will absorb the door responsibilities along with his assignments.

- The back-up position must ensure all the hoseline is removed from the hose bed and flaked out to avoid kinks.

2. Four members responding on the first due engine:
    - The door and back-up positions will be eliminated.
    - The nozzle firefighter will stretch the first hoseline with assistance from the officer acting as the back-up position.
    - The control firefighter will assume the back-up position after a water supply has been obtained.
3. Engines responding with less than four firefighters must notify the IC and should await orders to operate as needed.
4. If the ladder company is delayed the door and control firefighters may become the search team (VES) or outside vent team in conjunction with the attack line as directed by the IC.
5. Unit 2-8-10 (if operational) will operate as directed by the IC.

OPERATIONS OF THE SECOND TO ARRIVE ENGINE

I. COMMUNICATIONS

a. Members of the 2nd due engine company shall monitor the radio while en-route to the scene to receive operational instructions from the Incident Commander.

II. OPERATIONS

a. Assignment of members to perform specific tasks shall be the duty of the Officer of the 2nd due engine company.

b. When necessary, assign members to assist with the stretching or operation of the initial handline, stretching and positioning of a second handline, assure that the 1st due engine is connected to an adequate water supply, relieve the 1st due engine company as required.

c. Assist with ladder company operations as ordered.

III. POSITIONS AND TOOLS

a. Positions and tools remain the same for all responding engine companies.

b. The second to arrive MPO will assist the 1st due ladder company MPO at the hydrant to ensure a water supply. After a water supply has been insured the engine company MPO will relieve the 1st due ladder company chauffeur to enable him to operate with his company.