

This guideline provides North Zone procedures for the use and placement of fire streams.

All combination nozzles are to be pumped at 100 PSI nozzle pressure. Combination nozzles on Type 1 Engines should be pre-set at a 30-degree fog pattern. During actual fire emergencies, flow settings and nozzle patterns can be adjusted depending on the situation.

The following items should be considered in determining the tactical effectiveness of hose lines:

- Size
- Placement
- Speed
- Mobility
- Supply

Hose lines should be advanced inside fire buildings in order to protect access to halls, stairways, or other vertical and horizontal channels or any area where people or fire may travel.

North Zone procedures for basic hose line placement are as follows:

- The first stream is to be placed between the fire and persons who may be endangered by the fire.
- When no life is endangered, the first stream is placed between the fire and the most severe internal or external exposure.
- The second line should be placed to a secondary means of egress (caution should always be taken to assure personnel are not positioned opposite the second line). For multi-story structures see **EOM ??** series.
- Subsequent lines should cover other critical areas.
- Whenever possible, position hose lines so they assist in rescue activities, support confinement, and protect exposures.
- When a second line is placed into service, it should be the same size or greater.

Hose line judgments generally involve the trade-off of time versus pure tactical placement. If basic hose line placement is violated, back-up actions should be taken. Company Officers should choose the size of hose line that will be required to handle the incident. If a large hose line is needed, provide it from the outset. If there is ever any doubt, go to the next larger size.

IT IS THE RESPONSIBILITY OF EACH COMPANY TO PROVIDE ITS OWN UNINTERRUPTED, ADEQUATE SUPPLY OF WATER. "PROVIDE" in this case does not mean a supply line should be laid or that it should be pumped. It is the Company Officer's responsibility to get water into their line(s) by whatever means are appropriate.

When changing from offensive to defensive fire control, interior handlines are to be removed from the building and positioned for defensive fire attack. Priority should be given to water supply and application. The operating positions of fire streams should also be evaluated.

Fire control forces should consider the characteristics of fire streams and choose the proper nozzle and stream for the assigned task.

- Straight Stream - more penetration, reach and striking power, and less steam conversion
- Fog - more heat absorption expansion, low reach
- 1 ½" Lines - fast, mobile, lower volume
- 1 ¾" Lines - fast, mobile, higher volume
- 2 ½" Lines - big water, big knockdown, slow and immobile
- Master Streams - mostly stationary, slow to set up and maximum water

Offensive attack operations should remain highly mobile. Offensive attack positions should assist in achieving control of the fire quickly. If fire flow to an offensive attack position is inadequate and the fire does not go out, REACT, BACK IT UP, OR MOVE ON. Personnel should be wary of hose lines that have been operated in the same place for long periods. If the operation of these hose lines is ineffective, consideration should be given to moving, adjusting, or redeploying them.

Personnel should be aware of the limitations of operating nozzles through holes in buildings and should avoid this type of stream placement if possible. Streams operated through holes are usually ineffective and it is difficult to determine their effectiveness. **FIRE STREAMS ARE NEVER TO BE OPERATED DOWN VENTILATION HOLES DURING OFFENSIVE FIRE OPERATIONS.**

When entering below ground, nozzles should not be opened until the fire has been located. Fog streams are not to be used in a direct attack when operating at a confined below ground fire.

If crews are committed to inside operations, do not operate exterior streams into the same building, especially master streams or elevated master streams. The combining of interior and exterior fire attacks in the same building is to be avoided and is not an acceptable fire attack option. **DO NOT OPERATE FIRE STREAMS INTO SMOKE.** Fire location should be determined before water can be effectively applied.

Company Officers are responsible for the effectiveness of their fire streams. They should maintain an awareness of where fire streams are going, their effect, and report the general operational characteristics back to the Incident Commander, Operations Section Chief, or Division/Group Supervisor as appropriate. Attack lines and crews are to be supervised and be in place before forcible entry operations are completed. Utilize "minimum manning" on attack lines.

STRUCTURAL FIRE ATTACK
Fire Stream Management

EMERGENCY OPERATIONS MANUAL
8-15-94 PAGE 3 OF 3
EOM 305.00 (rev. 2-1-05)

When the decision has been made to utilize an elevated master stream, as a rule, the fire building or portion that is involved is unsafe for interior attack. When this occurs, companies are to follow the defensive fire control guideline (**EOM 303.02**). Do not apply water to the outside of a roof with an elevated stream in an attempt to extinguish the fire.