

Tempe Fire Department Policies and Procedures
Fire Stream Management
207.06
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The following items represent an index of the tactical effectiveness of hose lines:

- . Size
- . Placement
- . Speed
- . Mobility
- . Supply

These factors also represent the options involved in fire stream management.

Hose lines should be advanced inside fire buildings in order to control access to halls, stairways, or other vertical and horizontal channels through which people and fire may travel.

Basic Hose Lines Placement

- A. The first stream is placed between the fire and persons endangered by it.
- B. When no life is endangered, the first stream is placed between the fire and the most severe exposure.
- C. Second line is taken to secondary means of egress (always bear in mind the presence of men opposite the second line).
- D. Succeeding lines to cover other critical areas.
- E. Whenever possible, position hose lines in a manner and direction that assists rescue activities, supports confinement, and protects exposures.

It is the responsibility of each engine company to provide its own uninterrupted, adequate supply of water. "Provide" in this case does not mean they must necessarily lay the line or that they must pump it. It is their responsibility to get water into their pump by whatever means are appropriate.

Hose line judgments generally involve the trade-off of time versus pure tactical placement; if a tactical placement principle is violated, back-up actions must be taken.

From the beginning use the size of hose line that will eventually be required; if you need a big line provide it from the outset. If there is any doubt from the beginning, go to the next size hose line.

When you make a decision on what size fire stream to apply, select the size that is actually required. Beware of automatically going for the size you use most often; or the size that is fastest/easiest.

When you change commitment from offensive to defensive and pull hand lines out of the fire building, do not continue to think in terms of hand lines -- convert to exterior master streams. Give priority to water supply and application. The operating positions of such streams must also be evaluated -- do not continue to operate into burned property.

Fire control forces must consider the characteristics of fire streams:

Solid Stream - More penetration, reach and striking power -- less conversion.

Fog - More gross heat absorption/expansion, low reach.

1-1/2" Lines - Fast, mobile, low volume.

2-1/2" Lines - Big water, big knockdown, requires more manpower for mobility.

Master Streams - Mostly stationary, slow to set-up - maximum water.

Choose the proper nozzle and stream for the task.

Offensive attack activities must be highly mobile -- as their movement slows down, they necessarily become more defensive in nature and effect. Many times effective offensive operations are referred to as "aggressive."

Offensive attack positions should achieve an effect on the fire quickly -- consequently, back-up judgments should also be developed quickly. If you apply water to an offensive attack position and the fire does not go out -- react - back it up with another line or change plan of attack.

Beware of hose lines that have been operated in the same place for long periods. Fire conditions change during the course of fire operations (most things will only burn for a limited time) and the effect of hose line operation must be continually evaluated. If the operation of such lines becomes ineffective, move, adjust, or redeploy them.

Beware of the limitations of operating nozzles through holes. The mobility of such streams is necessarily limited and it is generally difficult to evaluate the effectiveness of such streams. Sometimes you must breach walls, floors, etc., to operate -- realize the limitations of such situations.

Consider that hose lines pump as much air as they pump water (particularly fog streams). Think of them as fans when making line placement judgments and use the fan characteristics in a manner that provides for confinement and reduces loss. When entering basement fire(s) do not open nozzles until you can see and are near the fire -- do not use fog streams in basement fires.

If you commit attack crews to inside operations, do not operate exterior streams into the same building -- particularly ladder pipes. Do not combine interior and exterior attacks in the same building. It may be necessary to coordinate pulling crews out of the building while an exterior heavy streams knockdown is made. Know when to shut down nozzles -- many times continuing operations of large streams prevents entry and complete extinguishment.

Do not operate fire streams into smoke -- fire location must be determined before water can be effectively applied.

If you use an exterior stream, use a big one. Straight bore tips provide better penetration for heavy streams.

Maintain control of key hydrants -- be certain that pumpers are assigned to such key hydrants to provide most effective fire stream operation. Fewer pumped supply lines provide higher overall attack capability than numerous unpumped hydrant supply lines.

Have attack lines ready during forcible entry operations. Attack crews should be fully protected and supervised before forcible entry is effected.

Company officers must assume responsibility for the effectiveness of their fire streams. Such officers must maintain an awareness of where fire streams are going and their effect, and report the general operational characteristics back to sector/Command.

Ladder pipes are particularly useful and effective when operated on large open-type fires. A good general rule is that you have in effect written off the building (or portion) when you initiate ladder pipe operations and you are essentially in a defensive mode.

Ground crews should be advised before ladder pipes go into operation.

Do not apply water to the outside of a roof and think you are extinguishing the fire. Such water application may offer effective exposure protection; but, if part of the roof is intact, it will shed water just like it was built to do and will prevent water from reaching the seat of the fire. This is particularly true of ladder pipe operations.

Do not operate fire streams down ventilation holes during offensive operations.

On the fireground everyone wants to hold a line of their own -- be careful who has water from the standpoint of type of company, position, and function.