

Hiawatha Fire & Rescue

Policy 610.01
Emergency Operations
Fire Streams
5/26/2001

I. Scope

This standard shall apply to all fire control and rescue incidents where hoselines must be deployed and water is used to mitigate the solution. It was developed to:

- A. Establish guidelines for developing effective fire streams.
- B. Establish guidelines for the proper placement of fire streams at a fire control or rescue incident.

II. General

- A. Tactical success during firefighting operations depends to a large degree on the timely development and placement of fire streams.
- B. For a fire stream to be adequate, sufficient pressures are needed to provide adequate reach. Select hoseline and nozzles that provide sufficient volume to meet fire flow demands.

III. Hoseline Selection

- A. Initial hoselines should be deployed based of the following:
 1. Hose of sufficient size to meet the fire flow demand.
 2. The proper safety factor to personnel operating the line.
 3. Adequate personnel available to deploy the line effectively.
 4. Sufficient water supply to meet fire flow demand.
 5. Time required and work involved in deploying stream.
- C. Stream comparisons:
 1. Initial hose streams will commonly be preconnected lines of either 1 ¾ or 2 ½ inch.
 2. 1 ¾ lines will normally be equipped with Task Force Tip nozzles. At 100 psi, flows of 95 to 200 gpm are available.
 3. 2 ½ - inch lines will normally have Akron or Task Force Tip nozzles. At 100 psi, flows of 120 to 250 gpm are available.
 4. For defensive operations, smooth – bore 2 ½ - inch nozzles are carried on 284 and 286. Tips of 1 inch provide 210 gpm and 1 1/8 “ provide 266 gpm at 50 psi.
 5. Deck pipes have stacked tips and at 80 psi are capable of delivering:
 - 1 3/8” – 502 gpm
 - 1 ½” – 598 gpm
 - 1 ¾” – 814 gpm
 - 2 ½” – 1669 gpm

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Portable master stream devices are equipped with either straight tips or 500 – gpm fog nozzles.

IV. Placement

A. Order of deployment:

1. Place the first line between the fire and victims to provide and escape route.
2. If there is no life hazard, place the first line between the fire and the most severe exposure
3. Place the second line to support the first line or to protect a secondary means of egress.
4. Use additional lines to support attack positions.

B. Rules of placement:

1. Always attempt to attack fires from the unburned side.
2. Never combine interior and exterior attacks.
3. The safest route to attack a wildland fire is from the burned side.
4. Use the direct attack method in interior operations – i.e., apply water on the base of the fire using 30-degree fog streams.

V. Defensive Fires / Exterior Attack

A. Large fires require large volumes of water. Whenever big water is needed, avoid using handlines and opt for master streams instead.

B. Best results are usually obtained from smooth – bore nozzles. They provide greater reach and penetration. Fog lines may be necessary in some cases to protect apparatus and personnel.

C. Elevated Streams:

1. Use to protect exposures.
2. Use through windows.
3. Never use in vent holes.

Directing an elevated stream through a properly made ventilation hole in a roof will negate the beneficial results of the vent. The stream will act as a cover that arrests the ventilation, drives fire to other areas, and often forces firefighters from the building