

## SUPPLY LINES TO AERIAL DEVICES

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**Purpose:** *This procedure describes the methods of providing water supply lines to aerial device apparatus*

### General Definitions:

**Aerial Device:** An aerial ladder, elevating platform, or water tower that is designed to position personnel, handle materials, provide continuous egress, or discharge water.

**Supply Hose:** Hose design for the purpose of moving water between a pressurized water source and a pump that is supplying attack lines.<sup>1</sup>

### Procedure:

1. Whenever possible, a 5 inch supply line should be laid to the pump control panel of the aerial device apparatus. This will allow for additional lines to be used, supplementing the aerial device.
2. The operator of the supplying unit should adjust his/her pressure so that a minimum of 50 PSI is received at the aerial device apparatus. Greater pressures may be delivered, provided they do not exceed 125 PSI<sup>2</sup>. The operator of the supplying unit should maintain no less than 20 PSI residual.
3. All other procedures regarding pump operations should be followed.

### SUPPLY LINE LAID TO REAR INTAKE:

1. If the conditions are such that the rear intake for the aerial device is to be used, the following shall apply.
2. The 5 inch line that is normally used for hydrant connection on the unit supplying the aerial device apparatus shall be connected directly to the 4 inch intake at the rear. The same connection that fits on the hydrant will fit the rear intake. The rear intake supplies ONLY the aerial master stream and not directly to any other water discharges or intakes.
3. The operator of the supplying unit will adjust his/her pressure so that 170 PSI is maintained at the rear of the aerial device. The GPM flow rate shall be calculated at 1000 GPM with a friction loss of 8 PSI per 100 foot length of 5 inch line.
4. Whenever the aerial device discharge has ceased operations, those at the tip of the device should inform the aerial device operator, so that the operator of the supplying unit may reduce or halt the operation of the supply line.
5. All other procedures regarding pump operations shall be followed.

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<sup>1</sup>NFPA 1961, A.3.3.14 Supply hose is designed to be used at operating pressures not exceeding 185 PSI.

<sup>2</sup> Relief valve pre-set at 125 PSI

*Standard Operating Procedures are meant only to be guidelines. Actual conditions may warrant alternative actions.*