

This guideline provides North Zone personnel with safety procedures during aerial and ground ladder operations.

**AERIAL LADDERS:**

Department personnel must be thoroughly familiar with the operation and capabilities of the Department's aerial apparatus.

Maintenance of aerial apparatus and all their components are a top priority. A thorough inspection of aerial ladders should be performed daily. If deficiencies are found, they should be repaired before the aerial ladder is used. Aerial ladder service testing will be done in accordance with NFPA standards.

When aerial apparatus (Truck Company) is assigned at an incident, the following should be considered when positioning initial response apparatus:

- Assure there is adequate overhead obstruction clearance (power lines, trees, falling debris, etc.).
- Location of fire (aerial apparatus are expensive exposures).
- The distance from and the terrain around the building involved (unexpected fire intensity, operating limits of the aerial ladder, reach of the aerial ladder, angle of inclination of the aerial ladder when personnel are working from the ladder or during elevated master stream operations).

The following safety considerations should be followed when using aerial apparatus:

- Outriggers should be set on a solid surface and used per manufacturer's recommendations.
- The aerial ladder must be stabilized before personnel are allowed to climb it. The aerial ladder should never be extended with personnel on the ladder.
- Caution should be exercised when using the aerial ladder so that the ladder loading does not exceed the manufacturer's recommendations.
- Shock loads to the aerial ladder should be avoided. Personnel jumping onto the ladder when it is extended impose stresses several times greater than when the ladder is loaded normally.
- When elevated master streams are in use, sudden movements or surges should be avoided. When moving aerial ladders with the master stream in use, make sure the turntable is turned slowly and smoothly. Sudden shock loads from nozzle reaction or erratic movement of the aerial ladder can cause severe shock loading.

- Personnel climbing an aerial ladder should climb in a smooth, rhythmic motion. The aerial ladder should be climbed with hands and feet on the rungs of the ladder. Rails should be used to climb the ladder when the angle of inclination is such that climbing with hands on the rungs is not practical.
- When personnel are working from an aerial ladder, they should be locked in or belted in to prevent falling.
- Personnel standing on the ground next to aerial apparatus are not to touch it when the aerial ladder is in operation.

### **GROUND LADDERS:**

Ground ladders are unlike any other tool used on the fireground. Within their height and personnel limitations, ground ladders can be very effective in many fire fighting operations. Because of the uniqueness of ground ladders and the operations they are designed to perform, personnel using ground ladders must be familiar with the ladders and their components, as well as their limitations. If personnel are not well trained in ladder operations and are not familiar with the capabilities of ground ladders, ladder operations can present safety problems.

Maintenance of ground ladders is a top priority. A thorough inspection of ground ladders should be performed daily and after every use. A thorough inspection and preventative maintenance procedure should be performed at least monthly. All ground ladders will be service tested annually using the standard testing requirements per NFPA standards.

All North Zone ground ladders will be identified as follows:

- The bottom 18" of the ladder on the outside beams will be marked with white reflective tape.
- The top 18" of the ladder on the outside beams will be marked with white reflective tape.
- The balance point shall be identified by a 1" line of red reflective tape.
- The ladder mounting positions shall be identified by 1" reflective tape.

Only approved ladder line shall be approved for halyards on North Zone ground ladders.

North Zone ground ladders shall be carried and raised as outlined in the North Zone Training Manual.

The following safety guidelines should be followed when using North Zone ground ladders at emergency scenes:

- Full protective clothing, appropriate to the assignment, shall be worn.
- When lifting and lowering ladders, use leg muscles, NEVER BACK MUSCLES.
- When preparing to raise a ladder, always make sure there are no overhead obstructions, especially power lines.
- Before climbing a ladder, make sure all dogs are locked, and the halyard has been tied off using the approved knot. Make sure the ladder is at the proper angle of inclination and that all four points of contact are made. Personnel should never climb a ladder until the ladder is properly footed.
- Climbing the ladder should be smooth and rhythmic.
- When working from a ladder, personnel should always be locked in.
- Care should be taken to never move a ladder once it has been placed. It was probably put there as a means of egress for personnel working on the roof or other elevated area.
- Care should be taken to never exceed the manufacturer's weight limitations of the ladder.
- If a ladder is subjected to excessive heat, impact, or has been overloaded, the ladder should be removed from service immediately and the appropriate testing and maintenance performed.