



Lauderdale-By-The-Sea Volunteer Fire Department

S.O.P Number:	Effective Date: October 1, 2010
Section:	
Subject: Proper Care and Use of Lifelines, Hand lines, Hardware, and Software	
By Order of the Fire Chief: Steven Paine	

Section 1004 - Proper Care and Use of Lifelines, Hand lines, Hardware, and Software

Purpose

To insure that all firefighters understand the proper use and care of Hand line and/or Rescue Lifelines.

Scope

These procedures apply to all Suppression personnel.

Life Safety Rope

- A. The Lifeline and/or Rescue Line, as stated in N.F.P.A. 1500-5-8 1992 will be grouped together as a Lifeline on this Department.
- B. The rope that will be used for the Lifeline will be the 1/2" Static Kern mantle with a tensile strength of 9,000 pounds.
- C. All the rope used on this Department will be considered used rope and will conform to N.F.P.A. safety factor of 15:1.
- D. The Lifeline will only be used for rappelling and/or rope rescue.
- E. The Lifeline shall be limited to a maximum of 600 pounds or two (2) people (I.F.S.T.A. Standard).
- F. The Lifeline will be kept in a rope bag (orange) with a figure-eight knot tied on the end for easy access.
- G. Rope ID tags with rope number, date in service, diameter, length, and department name. Shall be attached to the rope bag.

Hand line (Utility Line)

- A. The Hand line will be 7/16" Static Kern mantle.



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- B. This will be kept in a yellow rope bag for easy identification.
- C. The Hand line for this Department will be a minimum of 100 feet in length.
- D. This line is to be used for hoisting, anchoring, roping off an area, ID tag line, or general use.
- E. Rope ID tag with rope number, date in service, diameter, length, department name, shall be attached to the rope bag.

Care and Maintenance

A. Store properly:

Keep the rope in a proper color-coded bag and stored in a dry cool truck compartment. Do not store on top of engine shroud, or with petroleum or acid products.

B. Protect from Harmful Substances:

1. Do not store in same compartment with gasoline or hydraulic fluids, i.e.: Hurst tool or generator compartments.
2. Protect it from bleach, acid, and petroleum products; heat over 400 degrees will degrade nylon.

C. Do Not Walk or Stand on Rope:

1. Walking or standing on the rope will grind dirt and sand into the inner nylon strands and damage it.
2. Do not drag rope over the ground or sharp objects.

D. Protect from Abrasion:

Use a hose roller or proper edge protection to keep the rope away from sharp edges. Do not let nylon rope rub on nylon.

E. Use Rope for its Intended Purpose:

The life safety line is for hoisting or lowering people, and rappelling only. Any other use of life safety line is cause for condemnation of the rope.

F. Keep Rope Clean:

1. Wash the rope as needed in cold water with a mild soap. This can be done in a clean



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garbage can for washing and rinsing. Let the rope air dry for several days in the hose tower or engine room. NOT IN THE DIRECT SUNLIGHT. All rope should be completely air dried before being put back in service.

2. When putting the rope into the rope bags, do not use a standardized pattern. Rope Should be simply stuffed into the storage bag.
3. Rope should be reversed each time it is placed back into the bag. If the (A) end was used place (B) end out.
4. Enter all information of, use, cleaning, and inspection results in the rope log.

G. Testing and Inspection:

A visual inspection should be done after each use by running the rope through your hands. Look for differences in flexibility, diameter, discoloration, lumps, or badly frayed or abraded spots.

1. Enter all information of testing/inspection in the rope log.

H. Condemnation:

A Lifeline or Hand line that becomes abraded to the point that inner core fibers are seen should be condemned. A Lost and Damaged report Form (AA-239) will be submitted in order to obtain a replacement.

1. Life safety rope used for rescue at fires or other emergency incidents or for training shall be permitted to be reused if inspected before and after each such use in accordance with the manufacturer's instructions provided:
 - a. The rope has not been visually damaged by exposure to heat, direct flame impingement, chemical exposure, or abrasion.
 - b. The rope has not been subjected to any impact, shock load.
 - c. The rope has not been exposed to chemical liquids, solids, gases, mists, or vapors of any material known to deteriorate rope.

I. Rescue Harness, Hardware and Software:

1. The class 2 rescue harnesses on this Department will have a tensile strength of at least 5,000 pounds. The harnesses are made of nylon, they are to be treated the same as rope.
2. All 1" tubular webbing will have a tensile strength of 4,000 pounds and should also



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- be inspected.
3. The carabineers and rescue eight plates on this Department will have a tensile strength of at least 10,000 pounds.
 - a. They are to be visually inspected after each use for any discoloration, cracks, misaligned gates, etc.
 - b. Do not drop on concrete. If dropped more than 5' quarantine equipment and permanently remove from service.
 - c. If you suspect any abnormality, take it out of service to examine for serviceability.

J. Inspection Schedule:

1. All Lifelines and Hand lines will be thoroughly inspected in February and August.
2. An Inspection should also be performed before and after each use.
3. A rope log will be maintained for each rope on the apparatus and kept in the apparatus logbook and in Logistics.