



ROPES MAINTENANCE

SCOPE

This guideline shall apply to all members of the Stoney Point Fire Department and shall be adhered to by all members.

PURPOSE

To establish the procedures for proper inspection, care, maintenance, and documentation of Life Safety ropes and associated equipment.

DEFINITIONS

Document - piece of written, printed, or electronic matter that provides information or evidence or that serves as an official record; to record information

Guideline - a general rule, principle, outline of a policy

Inspect - process by which something is checked to ensure operability and meets all requirements

Life Safety Harness – equipment item; an arrangement of materials secured about the body used to support a person

Life Safety Rope - rope dedicated solely to supporting people during emergency operations such as rescue, firefighting, or training evolutions

Maintenance - process of keeping something in good condition to ensure operability

Member – any career, volunteer, staff, and auxiliary personnel affiliated with the department

Replace – remove inoperable equipment in exchange for operational equipment

Shall - indicates a mandatory requirement

GUIDELINES

Stoney Point Fire Department is a Heavy Rescue provider with Rope Rescue and High Angle specialties. The department also conducts other operations that require the use of life safety rope and the associated hardware to effectively conduct these operations. The proper inspection, care, maintenance and documentation of these ropes and hardware is essential for ensuring the safety of operational members and maintaining our certifications.

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Inspection

All life safety rope, harnesses, and associated equipment shall be inspected monthly with the inspection and results documented in the rope log or equipment log and entered into Firehouse. Additionally, all life safety ropes, harnesses, webbing, and associated equipment shall be inspected following each use, whether for operations or training, with the results documented. The Rescue Officer, in conjunction with other Technical Rescuers, Officers, and Firefighters shall be responsible for the inspection, care, maintenance and documentation of all life safety rope and specialized rescue hardware. The inspection shall include, but not be limited to:

- Visual inspection of life safety rope, life safety harnesses, carabiners, descent control devices (Figure 8, Brake Bar, Descenders, etc.), pulleys, prusik ropes, webbing, and other items for debris, deformation, tears, dirt, rust, grease, etc.
- Physical inspection of life safety rope, life safety harnesses, carabiners, descent control devices (Figure 8, Brake Bar, Descenders, etc.), pulleys, prusik ropes, webbing, and other items for burrs, abrasion, lumps, friction wear, burns, tears, deformation, separation, grease, embedded dirt, etc.
 - pull rope from bag and run rope through fingers feeling and looking for damage
 - run each prusik through fingers to look and feel for damage
 - trace fingers along harnesses to feel and look for damage
 - inspect carabiners, descent control devices, pulleys, and other metal equipment for knicks, burrs, rust, cracks, and other physical damage by manipulating each item
- Identify carabiners and other metal equipment for XRAY that may have been dropped from a height greater than waist high or otherwise damaged
- Document all inspections in the rope log or equipment log

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Removal of Life Safety Equipment from Service

Life safety rope and harnesses shall be removed from service whenever they experience a severe shock load from operation, excessive exterior sheath (kern) wear, are contaminated, damage to the interior (mantle), are worn out, are faded, or fail the visual or physical inspection, or when they pass their service date. Out of service rope shall be cut up and used for knot tying practice.



Care of Life Safety Rope, Harnesses and Equipment

Life safety rope, life safety harnesses and other associated equipment requires special attention to preserve the life cycle of the equipment. The following procedures shall be utilized to care for this equipment:

- Life safety ropes, life safety harnesses, and associated rope rescue hardware (pulleys, carabiners, descent control devices, etc.) shall be stored in appropriate rope bags in a cool dry location out of direct sunlight and chemical contamination
- Life safety ropes, life safety harnesses, and associated equipment shall be inspected on the first day of each month and after each use. Each inspection shall be properly documented and submitted to the Rescue Officer for record keeping
- Life safety ropes shall be marked with an A on one end and a B on the opposite end to assist with rotating usage for working and standing ends to maximize the life span of the rope
- Life safety ropes shall be marked on both ends with the in-service date and length of the rope

Cleaning of Life Safety Rope, Harnesses and Equipment

Life safety ropes, life safety harnesses and associated equipment requires routine cleaning to prolong the usefulness of the items. The following cleaning procedures shall be followed:

- Life safety ropes, life safety harnesses, prusiks, and webbing should be washed in a mesh bag, as needed, with a mild non-alkaline detergent in water not exceeding 180 degrees Fahrenheit, fabric softener shall be added during the final rinse cycle
- Life safety ropes, life safety harnesses, prusiks, and webbing should be air dried in a well ventilated area out of direct sunlight
- Rope rescue hardware, such as descent control devices, carabiners, ascenders, and pulleys shall be cleaned with a mild detergent, warm water, and a brush. These items shall be air dried in a well-ventilated area out of direct sunlight

References

29 CFR 1926.104

NFPA 1006

NFPA 1500

NFPA 1521

NFPA 1670

NFPA 1858

NFPA 1983

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