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1910.502,
1910.1053

FALL PROTECTION

I. INTRODUCTION

The purpose of this regulation is to prevent and protect employees from falling off, onto, or through surfaces and to protect staff and the public from being struck by falling objects. This regulation applies to all work performed by City employees in elevated areas such as aerial lifts, roof, elevated platforms, on top of industrial equipment, building ledges, etc. Police and Fire shall abide by their department guidelines and training during emergency operations.

II. SAFE LADDER USE

Any employee working from a portable ladder shall ensure:

- A. Ladders are inspected prior to use for visible defects. Damaged ladders shall be immediately removed from service and marked "DAMAGED: DO NOT USE" or similar language which conveys the same message;
- B. Ladders are used as designed or intended and according the manufacturer's instructions. For example, A-frame ladders are not used as extension ladders, load limits shall be adhered to, extension ladders are not used as scaffolding (unless designed for that function), etc.
- C. Extension ladders are extended three (3) feet above the upper landing surface that an employee is trying to gain access to and secured to prevent slipping or falling.
- D. Users maintain three (3) points of contact, face the ladder while ascending or descending, and never carry any object or load that could cause the employee to lose balance and fall.
- E. When work is to be performed in front of a door or walk way they establish a detour when possible; otherwise, prevent others from accidentally moving the ladder; and
- F. Metal ladders are not used where there is a potential for accidental contact with electrical lines.

III. WORKING FROM AERIAL LIFTS

Any employee operating an aerial lift shall be familiar with and operate the equipment according to the manufactures instructions and safety requirements. Fall protection harnesses shall be worn with a shock-absorbing lanyard when working from an elevated lift. It is suggested the lanyard be no longer than three feet in length. EXCEPTION: Lifts that have the capability to only extend vertically do not require the use of a harness and lanyard so long as the work platform is protected by a guardrail system.

When a personal fall protection system is used while working from an aerial lift, employees shall not attach lanyards to adjacent poles, structures or equipment. Employees shall not move an aerial lift horizontally in an elevated working position. EXCEPTION: Employees do not have to return the aerial lift to the grounded position in an articulating boom lift while wearing a fall protection harness with a lanyard attached to the equipment's anchor.

- A. Cages on Forklifts
Cages used on forklifts to elevate employees shall be designed by a registered Professional Engineer. The operator of a forklift which is elevating an employee to perform work shall not travel horizontally while the employee is in the cage.

IV. FLOORS

All floor and wall openings shall be protected with a guard rail in accordance with the guard rail requirements described in this regulation. When it is not practical to install a guard rail system, i.e. the hole is not big enough for a person to fall through, a suitable cover shall be installed. When the hole is not protected by a guard rail or cover it shall be continuously attended to by an employee. All floor surfaces shall be clear of clutter or slippery material in order to avoid slip, trip, and fall hazards.

V. GENERAL FALL PROTECTION WHEN WORKING FROM THE TOP OF STRUCTURES OR EQUIPMENT

Guard rails or personal fall protection is required wherever the potential exists to fall, but at a minimum shall be used at: six (6) feet or more when employees are performing construction-type activities, including repair; and four (4) feet or more when employees are involved in general activities, i.e. routine maintenance. Engineering controls such as guard rails shall be considered first and installed where feasible. Anyone purchasing fall protection systems should contact Risk and Safety Services for support and analysis of the intended application.

- A. Guard Rails
Guard rails should be placed on all open sided floors or platforms and on leading edges of roofs or mezzanines. Guard rails shall include a smooth top rail at a vertical height of 42", a mid-rail halfway between the top rail and the working surface, and a 4" toe board on the surface of the vertical edge. Rails shall be capable of withstanding a force of 200lbs or more in any direction. If wire rope is used, it shall not deflect more than 3" in any direction and shall be flagged with high-visibility material at least every six feet.
- B. Personal Fall Protection Systems

All components of a fall protection system shall be used according to the manufacturer's installation and use requirements and inspected prior to use. If there is evidence of excessive equipment wear, deterioration, or a mechanical malfunction is detected, the item shall immediately be removed from service. All parts of the protective system shall be protected against cuts and abrasion when in use. No part of a personal fall protection system shall ever be used to hoist materials.

1. Anchors and Lifelines
Temporary or permanent applications of anchors and lifelines may be used as appropriate for the needs of the scenario. All anchors and lifelines shall be capable of withstanding a minimum of 5,000 lbs of force per employee attached.
2. Lanyards and Connectors
Appropriate lanyards and connectors shall be used with other compatible components and shall only be mixed when the manufacturer permits. Knots shall not be tied in lifelines, lanyards or other system components.
3. Harnesses
Full body harnesses are required when a personal fall protection system is used. Body belts shall not be permitted as a part of the protection system.
4. Fall Distance and Rescue
The personal protective system shall not permit an employee to free fall more than six (6) feet. When using a personal fall protection system, employees shall use a "Buddy System" so that someone is available to render aid or call 9-1-1, if necessary.

C. Employee Responsibilities

Employees who work at heights are responsible for:

1. Tethering non-motorized tools to prevent them from falling to a lower level;
2. Using all required fall protection components
3. Inspecting fall protection system components and anchors prior to each use; and
4. Notifying their supervisors of any potential or existing problems.

Each employee is responsible for maintenance, care and storage of fall protection equipment. Employees shall follow the protocols identified by the manufacturer for equipment maintenance, cleaning, and storage. Employees shall not use equipment that is damaged.

Personal fall protection equipment shall be stored appropriately. For example, it is not appropriate to store equipment in the bottom of a tool box where it is exposed to rust, or on the ground or outside exposed to the elements, etc.

When working at heights, employees shall be responsible for barricading areas below them where other staff or the public may travel or congregate.

VI. SUPERVISOR RESPONSIBILITIES

Supervisors shall ensure employees can safely use the equipment they are provided. Upon request, Risk and Safety Service staff has resources available to assist supervisors with educating employees on the proper use of equipment.