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RESPONSIBLE DEPT.	CONTENT STEWARD APP		ROVED BY				
Health and Safety	Carla Mancera Strachan Mark		k Bennett				
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PURPOSE

To establish requirements for the use of fall prevention and fall protection systems at the Martinez Refinery.

Personnel must be continuously protected from injury due to falls from elevation, including movement to and from the work area, when exposed to an unprotected side or edge with a fall hazard of 6 feet or more or above a recognized hazard for temporary access (e.g., rotating equipment, open vat, etc.). Personnel must be continuously protected from injury due to falls from elevation, with a fall hazard of 4 feet or more from permanent facility structures.

CODE

ANSI/ASSP Z359.2-2017 Minimum Requirements for a Comprehensive Fall Protection Program
29 CFR 1910 Subpart D Walking- Working Surfaces
29 CFR 1910 Subpart X, Ladders and Stairways
29 CFR 1917.95
8 CCR Section 1602 Work Over or Near Water
8 CCR Section 1670 Personal Fall Arrest Systems, Personal Fall Restraint Systems and Positioning Devices
8 CCR Section 1671.1 Fall Protection Plan
8 CCR Section 5004 Crane or Derrick Suspended Personnel Platforms
Marathon Interim Guidance Document IG-45 Fall Prevention and Protection

RSP 1700- 000 Life Critical Safety Rules and Accountability

SCOPE

This guideline outlines minimum fall prevention and protection requirements applicable to all Martinez Refinery employees, contractors, and subcontractors when elevated work fall hazards exist. For additional information concerning fall prevention or fall protection, contact facility Health & Safety Department personnel.

This standing instruction does not apply to emergency rescue operations conducted by the refinery emergency response team.

DEFINITIONS

Anchorage — a structural member to which the fall protection system is ultimately connected.

Anchorage Connector — component that couples the fall arrest system to the anchorage point.

Competent Person — one who is capable of identifying existing and predictable hazards in the workplace that are dangerous to employees and has authorization to take prompt corrective measures.

Deceleration Device (Shock Absorber) — a device that serves to dissipate a substantial amount of energy during a fall arrest or otherwise limits the forces imposed on the body during fall arrest.

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Fall Prevention — a means used to stop the initiation of a fall to a lower level and designed so that the employee cannot reach the unprotected edge.

Fall Protection — the use of passive equipment designed to stop and/or control the free fall once a fall has been initiated.

Approved forms of fall protection include, but are not limited to:

- a) OSHA compliant guard railing,
- b) Full body harness with lanyard and approved anchor point,
- c) Horizontal life line, and
- d) Retractable life line.

Fall Restraint System—equipment used to keep an employee from reaching a fall point. A tie off system that "restrains" the employee from falling off an elevated work surface is a type of fall restraint.

Fixed Roof Tank — cone or flat roof tank, may also be the external roof of an internal floating roof tank.

Free Fall — distance the D-ring travels from the onset of a fall to the time when the fall arrest system is activated (excludes deceleration distance and any elongation).

Guardrail System — a barrier erected to prevent employees from falling to lower levels.

Lanyard — a flexible strap with a connector at each end for connecting the full body harness at one end and an anchorage or anchorage connector at the other.

Leading Edge — unprotected edge of a walking/working surface that changes location as floor, roof, or deck is added or removed.

Lifeline — a flexible line for connection to an anchorage at one end to hang vertically (vertical lifeline) or for connection at both ends to stretch horizontally (horizontal lifeline) and to which other elements of a fall arrest system are attached.

Low Sloped Roof — a roof having a slope of less than or equal to 4 to 12 (vertical to horizontal).

Personal Fall Arrest System — fall protection consisting of anchorages, locking connectors, deceleration device, full body harness, and a lanyard, lifeline, or combination of these.

Personal Floatation Device — a U.S. Coast Guard approved personal flotation devices that are marked or labeled Type I PFD, Type II PFD, or Type III PFD, or a U.S. Coast Guard approved Type V PFD that is marked or labeled for use as a work vest for commercial use or for use on vessels

Positioning System — a system used to support or suspend an employee on an elevated work surface, allowing both hands free for work. Commonly used during formwork or tying of rebar.

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Qualified Person — one who by possession of a recognized degree, certificate, or professional standing, or who by extensive knowledge, training, and experience, has successfully demonstrated his ability to solve or resolve problems relating to fall protection and prevention issues.

Retractable Lanyard — drum wound lanyard that automatically locks to arrest a fall.

Roofing Work — the hoisting, storage, application, and removal of roofing materials and equipment, including related insulation, sheet metal, and vapor barrier work, but not including the construction of the roof deck.

Safety Factor — the ratio of the ultimate breaking strength of a member or piece of material or equipment to the actual working stress or safe load when in use.

Unprotected Sides and Edges — any side or edge (except at entrances to points of access) of a walking/working surface where there is no wall or standard or protection provided.

Warning Line System — barrier erected on a roof to warn employees that they are approaching an unprotected roof side or edge, and which designates an area in which roofing work may take place without the use of fall prevention or protection equipment.

GENERAL REQUIREMENTS

A. Fall Hazard Standing Instruction.

When fall hazards are present, employees and contractors will use one or more of the following methods to minimize the hazard in the prioritized order:

1. Elimination or Substitution:

Redesign the task, equipment, or surface to eliminate the fall hazards,

2. Passive Fall Protection:

Install platforms, walkways or working surfaces that provide suitable fall prevention, or

3. Fall Arrest:

Use fall protection or fall restraint devices that are designed to provide 100% protection from falls.

Approved personal fall arrest or fall restraint systems shall be worn by those employees whose work exposes them to falling in excess of 6 feet from the perimeter of a structure, unprotected sides and edges, leading edges and sloped surfaces such as fixed roof tanks.

The use of these systems shall be in strict accordance with CCR, Title 8, Section 1670 "Personal Fall Arrest Systems, Personal Fall Restraint Systems, and Positioning Devices".

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JOB SPECIFIC REQUIREMENTS

A. Fixed Work Platforms, Guardrails, Decking

All fixed platforms greater than 4 feet with have standard guard rails on all open sides. The railing shall include top rail, mid rail, and toe boards wherever there is a potential for falling objects.

All access ways or stair ways must have handrails. It is the expectation for all personnel to use handrails when going up or down stairs.

Personnel using fixed access ladders shall maintain three points of contact when climbing or descending, i.e., the individual must not carry anything in his/her hands. Materials must be carried in pouches or brought up or let down by other means.

Holes or other opening in a walking/working surface must be covered. Covers must be capable of supporting at least twice the intended load. Covers must be secured to prevent accidental movement or displacement. Covers must be marked with the words "hole" or "cover" to provide a warning of the hazards.

Additionally, if the work activity requires an individual to lean out over a railing or fall prevention guard such that both feet are not firmly planted on the deck, fall protection equipment must be used.

B. Fixed Ladders

All fixed ladders installed PRIOR to January 17, 2017 shall not exceed 30 feet in length (landing to landing). They shall be equipped with cages, a ladder climbing device, or PFAS when they exceed 20 feet in length. Cages shall also be installed on all fixed ladder sections that are positioned more than 20 feet above ground level.

All fixed ladders installed AFTER January 17, 2017 shall not exceed 24 feet in length (landing to landing) and have offset landing platforms with self-closing gates at each ladder transition. Cages shall be installed on all fixed ladder sections that are positioned more than 24 feet above ground level.

C. Safety Precautions for Use of Portable Ladders and Fixed Ladders

Fall protection is required when working from ladders if the working surface is 6 feet or higher (measured from the bottom of the feet) and the work requires the use of both hands.

Wherever feasible, ladders shall be secured to prevent accidental displacement. Ladders placed in any location where they can be displaced by workplace activities or traffic, such as in passageways, doorways or driveways shall be secured, or a barricade or other means shall be used to keep activities or traffic away from the ladder.

The area around the top and bottom base of ladders shall be kept clear for at least 3 feet in all directions of travel. While traveling on the ladder, maintain 3 points of contact. Do not lean past the side rails. Follow manufacturer guidelines for proper set-up of the ladder. Examples: open A-frame ladders all the way to allow the brace to lock in place; the uppermost and next lower steps of a stepladder shall not be used as a step.

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Always face the ladder while climbing up or down. Utilize three points of contact (two hands and one foot, or one hand and two feet) while climbing a ladder. Wear shoes with a defined heel and place your foot securely on the rung. Use extra caution when climbing in wet or slippery conditions. Take your time and pay close attention to your grip and footing.

Workers are to inspect ladders before each use. Visual inspection should include verify the ladder opens and closes properly, the rungs are intact and clean, the feet are attached. Remove any damaged equipment from service if found to be defective.

Temporary ladders must be rated for industrial use, extra heavy-duty type 1A.

Ladders must be kept clean and stored properly after use to prevent damage.

Straight ladders shall be so positioned that the distance from the base of the ladder to the wall, against which the ladder is placed, is one-fourth of the length of the ladder used.

When an individual is working from a portable ladder, the ladder must be tied off at the top or held at the bottom. Ladders must be held or tied off at the bottom while being tied off or untied at top.

Portable ladders are designed as a one-man working ladder based on the manufacturer's load requirements.

Extension ladders must not be taken apart in order to use the two sections separately. Do not splice ladders together. Ladders must not be used as skids, braces, scaffold members, or for any other purpose than that for which they are intended.

In the event it is necessary to place a ladder over a doorway or wall opening, the door must be secured, or the opening roped off and danger signs placed to warn persons of the ladder's presence.

Do not carry objects up or down a ladder that would interfere with the free use of the hand. In addition, there is the danger of falling objects injuring persons below. Carrying tools in pockets is poor practice; when practical, hand lines or other satisfactory carrying devices should be used. Do not over-extend while reaching from the ladder.

Ladders should never be tested for strength. Testing would put a severe strain on the side rails and may cause a ladder failure when in use.

Damaged ladders shall be removed from service immediately, tagged out of service, and be taken to the tool room to be repaired or discarded. All ladder repairs shall be made by the manufacturer or other qualified individual.

Care must be taken in the placement of ladders to avoid contact with overhead wires or other live electrical equipment. Ladders constructed of non-conductive material must be used by electricians or others working on or near electric wires or other energized equipment.

If ladders tip-over, inspect ladder for side rails dents, bends, or excessively dented rungs; check allto-side rail connections; check hardware connections; and check rivets for shear.

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D. Work on Rooftops

When performing work on equipment located on low sloped rooftops, fall prevention, or protection is required only if the work demands that the employee is within 6 feet of the roof edge, not including access to and egress from the roof.

Employees or contractors involved in roofing work must be protected by either a fall prevention or fall protection system. This does not include the inspection of the area prior to beginning work.

A warning line system is acceptable for roofing work on low-sloped roofs if personnel are not required to be within 6 feet of the edge. If work must be conducted within 6 feet of the edge, guardrails, restraint lines, or fall protection must be provided.

A warning line system alone is not acceptable fall prevention for work on steep roofs.

E. Work on Tank Roofs

See R&SI Section 8-6 "Tank Requirements" for information regarding fall protection requirements on tank roofs.

F. Mobile Equipment

1. Tank and Rail Cars

Personnel working at loading racks do not need to wear fall protection if working within the appropriate handrail enclosed areas of the gangways or top tank hatch.

If work is performed within a handrail that does not meet the criteria for fall prevention/protection, a fall arrest system must be used.

If a work activity requires an individual to leave the protected areas, fall protection must be worn.

2. Aerial Lifts

Aerial lifts include the following types of vehicle mounted aerial devices:

- a. Extensible boom platforms
- b. Aerial ladders
- c. Articulating boom platforms
- d. Vertical towers

Each person working in boom type personnel lifts must wear a full body harness and be anchored to the approved anchor location at all times.

Employees and contractors shall not exit an elevated boom or scissor lift, except where elevated work areas are otherwise inaccessible or hazardous to reach. Personnel may only exit the platform when it is the safest and last practical alternative. Exiting the platform must only be executed with the knowledge and consent of the Safe Work Permit writer. When

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personnel exit to unguarded work areas, a fall protection plan must be in place and personal fall arrest must be used.

Transferring from Elevated Aerial Lifts

Elevate personnel transfers from aerial lifts require the completion of the Authorization Form located in Attachment C. These transfers are only allowed when exiting the aerial device basket is the least hazardous means to perform the task.

3. Scissor Lifts

Fall protection is required on scissor lifts, in addition to any manufacturer's safety requirements. The fall protection shall consist of guardrails and either a fall restraint system or a personal fall arrest system.

4. Crane Suspended Personnel Platforms

The use of a crane to hoist employees on a personnel platform is prohibited unless conventional means to reach the worksite, such as an aerial lift or scaffolding, would be more hazardous or not possible because of structural design or worksite conditions.

Each personnel platform shall be equipped with a guardrail system and shall be enclosed at least from the toe board to mid-rail with either solid construction or expended metal having openings no greater than $\frac{1}{2}$ inch.

The personnel platform shall be conspicuously posted with a plate or other permanent marking which indicates the weight of the platform and its rated load capacity.

Trial lifts and load tests shall be conducted in accordance with 8 CCR Section 5004 Crane or Derrick Suspended Personnel Platforms.

Prior to personnel lifting, complete the Refinery Personnel Platform Hoisting Authorization form located on SharePoint

Except over water, employees occupying the personnel platform shall use a body belt/harness system with lanyard appropriately attached to the lower load block or overhaul ball, or to structural member within the personnel platform capable of supporting a fall impact for employees using the anchorage. When working over water, the requirements of section 1602 of the Construction Safety Orders shall apply.

Before employees exit or enter a hoisted personnel platform that is not landed, the platform shall be secured to the structure where the work is to be performed, unless securing to the structure creates an unsafe situation.

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G. Leading Edge Work

Each employee or contractor involved in constructing or working near a leading edge 6 feet or higher than the next lower level, shall be protected from falling by guardrails or a personal fall arrest system.

Employees working near edges that have additional hazards must take steps to mitigate the hazards and prevent injuries.

H. Working over Water

Personnel working in close proximity or over water must wear a personal floatation device if it's possible to fall into the water. For further detailed specifications on PFDs, see definitions section or see CAL OSHA Construction Safety Orders, Section 1602.

If it is over swift moving water, example, at wharf's edge, then a rescue boat must be immediately available and, in the water, or easily launched by 1 person. The boat/skiff operator must always be readily available. They may be assigned other duties, provided they do not interfere with or inhibit the operator's ability to reach the boat and initiate rescue. A Communication plan and method must be identified prior to work. All work near moving water must have a fall prevention and protection plan prior to commencing the work.

Lifesaving boats shall be properly maintained, ready for emergency use, ring buoy with 50 feet of 600pound capacity line and two life preservers.

I. Excavations

Employees or contractors working near the edge of excavations 6 feet or more in depth must be protected from falling in by guardrails, fences, barricades, or personal fall protection systems. All entrants must have Excavation Awareness training. See the Trenching and Excavation RSI for more information.

J. Scaffolding

Employees or contractors exposed to unprotected sides and edges of a supported scaffold that present a fall hazard of 6 feet or more shall be protected by a fall protection system. The two methods of fall protections for supported scaffolds are:

- 1. Any scaffold 6 feet or more above a lower level shall be equipped with a top rail not less than 42 inches in height nor more than 45 inches in height, a mid-rail halfway between the top rail and platform, and a toe board of 4-inch (nominal) height.
- 2. The use of a personal fall arrest system consisting of a full body harness, shock-absorbing lanyard, and appropriate anchorage point.

Employers must provide fall protection for employees erecting or dismantling supported scaffolds where the installation and use of fall protection is feasible and doesn't result in a greater hazard to the employees. Fall protection shall be conducted in accordance with the scaffolds manufacturer's recommendations.

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See Scaffold Requirements RSI for more information.

K. Pipe Rack Access & Traversing

While traversing, climbing, or descending an elevated pipe rack, the preferred fall protection technique is to secure a lanyard to a suitable anchor point. In some situations, anchor points or fall arresting systems are not available and the installation of the systems may introduce greater risk. In those situations, personnel may traverse, climb, or descend pipe racks without securing to an anchor point provided they do not:

- 1. Come within six feet of the leading edge of the pipe rack or a gap twelve inches or greater.
- 2. Cross a gap greater than twelve inches.

When stopped to perform a task (e.g., turn a valve, weld, etc.) the lanyard shall be secured to an anchor point. In some instance, a permanent anchor point may not be available. In those cases, a crane may be used as a temporary anchor point in accordance with Attachment B.

L. Walking-Working Surfaces

All new permanent platforms and gratings shall be designed and installed per the OSHA and ANSI 2017 standards.

All previously installed permanent platforms and gratings shall be visually inspected at least annually. (new platforms and grating installations fall under the rule after they are installed) Visual Inspections must be conducted and documented using form 08-27-D Fall Protection - Platform and Grating Inspection Form. Any deficiencies noted, fall hazards present, or damaged/missing grating, must be documented and have a work order notification submitted. Temporary corrective action must be taken immediately.

Examples of acceptable temporary actions: install hard physical barricade, such as wooden or metal guardrails, or other physical barricade to prevent falls or access. Danger tape alone is not an acceptable correction until the repair is made. It is an acceptable option for a shift, while maintenance is notified, and temporary barricade gets installed, no more than 24 hours.

NOTE: If a solid barricade is not immediately installed, and danger tape is being utilized, it must block off access to the area. In other words, be far enough back to keep people from accessing or accidentally falling through an opening. Supervision must verify that the access is controlled and limited enough to prevent a fall.

RESPONSIBILITIES

- M. Employees
 - 1. Ensure that fall protection is address prior to performing work.
 - 2. Report any damaged or missing guardrails to site Supervision and ensure the area is blocked off to prevent accidental access.

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- 3. Utilize a Personal Fall Arrest System as needed.
- 4. Inspect all PFAS elements prior to each use.
- 5. Complete initial and refresher training as needed.

N. Supervisors

- 1. Ensure that fall hazards are identified and properly addressed prior to job initiation.
- 2. Ensure employees are properly trained on the equipment they will be expected to use.
- 3. Ensure that employees properly inspect fall protection equipment prior to each use.
- 4. Utilize fall protection equipment only in accordance with manufacturer's recommendations.
- 5. Inspect equipment prior to each use and report any damaged or excessively worn equipment.
- 6. Report any fall to management/supervision immediately and remove any harness and lanyard, involved in a fall, from service. Turn in to H& Dept. for further evaluation prior to destruction.
- 7. Return fall protection equipment to the Technical Safety Center promptly after use for inspection.
- O. Health and Safety Technical Safety Center
 - 1. Properly inspect all fall protection equipment at specified frequencies in accordance with manufacturer's recommendations and maintain records of these formal inspections.
 - 2. Remove from service any damaged or excessively worn equipment.
 - 3. Remove from service any equipment subjected to the forces of a fall for reevaluation or destruction.
 - 4. Maintaining adequate inventory to support refinery needs during normal operations.
- P. Engineering
 - 1. Ensure methods to address fall hazards are considered during project design and construction, including provisions for anchorage attachments where necessary.
 - 2. Incorporate elevated work techniques into Engineering Specifications as appropriate.
 - 3. Provide technical assistance in the design and installation of horizontal lifelines as needed.

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MISCELLANEOUS REQUIREMENTS

A. Purchase of Fall Protection Equipment

Fall protection equipment is a form of personal protective equipment. Only equipment that has been approved for use by the H&S Department and) may be used by employees. All purchases must be made through the procurement department through approved vendors.

Contractors are responsible for the selection, use, care, and inspection of fall protection equipment used by their employees and must ensure that the equipment is used in strict accordance with manufacturers' recommendations.

B. Positioning Systems

Positioning systems are designed to prevent falls and cannot withstand shock loads. Positioning systems, such as body belts must not be used as a means of fall protection. A fall protection system may be required in conjunction with a positioning system when a fall hazard over six (6) feet in height exists.

C. Exclusive Use

Fall protection equipment shall not be used for purposes other than those for which it was designed. Fall protection equipment must never be used for towing or hoisting.

Any equipment that is used as part of a fall protection system but could also be used for other activities (such as slings, chokers, carabineers, etc.) must be tagged or otherwise identified as fall protection equipment.

D. Inspection

All fall protection equipment must be inspected by a Competent Person. This is, managed by Health and Safety through the Technical Safety Center (or approved vendor) bi-annually. As such, fall protection equipment should be checked out from the Technical Safety Center and promptly returned before the inspection due date.

Additionally, the user should also perform a pre-use inspection of this equipment prior to each day's use. See Attachment A of this standing instruction for harness inspection guidelines.

Davits and fixed anchor points, specifically designed and used for fall protection purposes, shall have been inspected and approved for use by the ME&I group within the previous 12 months before use.

Removal from Service

All parts of a fall protection system must be immediately removed from service or recertified by a competent person (or manufacturer) if it has been subjected to fall forces.

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Any component of a fall protection system with a significant defect must be removed from service, tagged, and returned to the Technical Safety Center (T-4 Trailer). Examples of significant defects include:

- 1. Cuts, tears, abrasions, mold, or undue stretching
- 2. Alterations or additions which might affect its efficiency
- 3. Damage due to deterioration from contact with high heat, acids, or corrosives
- 4. Distorted hooks or faulty hook springs
- 5. Tongues unfitted to shoulder of buckles
- 6. Loose or damaged mountings
- 7. Nonfunctioning parts
- 8. Beyond manufacturer's recommended service life
- E. Natural Fiber Ropes

Natural fiber ropes are not allowed for use in any fall prevention or protection system.

F. Distance Considerations

Always check for obstructions below the work area to make sure the potential fall path is clear. The free fall distance of a personal fall arrest system shall not exceed 4 feet.

The user must not be allowed to contact the next lower level should a fall occur. Therefore, the total fall distance must be less than the height above the next level. Total fall distance consists of:

- 1. Free-fall distance
- 2. System elongation
- 3. Deceleration distance
- 4. Employees height

SPECIFIC EQUIPMENT REQUIREMENTS

A. Body Harness

A body harness must be worn snugly at the upper legs with all straps tucked in. The chest strap must be between the chest and collarbone and the rear D-ring attached between the shoulder blades. Body belts are prohibited for use on Marathon projects.

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The standard maximum working weight of a harness is 310 pounds. Employees with a working weight of greater than 310 pounds are not permitted to wear a full body harness unless it was designed for accordingly. Contact Health and Safety for more information.

Harness D-ring use is based on its location:

Location	<u>Use</u>
Back	General fall protection and fall arrest
Front	Climbing activities and rescue

B. Snaphooks

Only self-closing, self-locking type snaphooks are allowed for fall protection use in order to minimize the potential for accidental "roll-out."

The snaphook must open and close freely and must be fully closed around the anchorage or anchorage connector.

C. Anchorage Connectors

Anchorage connectors are used when the fall arrest system cannot be directly attached to the anchorage. Examples of connectors include slings, cross-arm straps, chokers, and shackles.

Connectors must meet the strength requirements of the system as a whole, i.e. 5000 lbs. or designed by a qualified person.

D. Anchorage

Anchor points must be capable of supporting 5,000 lbs. per worker or be designed by a qualified person and maintain a safety factor of two.

Anchor points must be at a height that limits free-fall distance to 4 feet or less.

Personnel should always work directly under the anchor point to avoid a swing-fall injury.

See Attachment B for acceptable and unacceptable anchorage based upon the 5,000 lbs. dead weight minimum criteria.

See Attachment B for the use of mobile cranes as approved anchor points.

E. Deceleration System

A deceleration device is required as a component of an overall fall protection system.

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F. Lanyards (General)

The shortest length lanyard possible should always be used except when connecting to a vertical lifeline that is not within 3 feet of the worker. In this case, a longer lanyard may be used to connect higher on the lifeline in order to minimize swing in the event of a fall.

Do not tie a lanyard back into itself unless the lanyard is designed for such use. (Example a Miller 'Backbiter' style lanyard)

Use a pad or buffer (cut or heat resistant) if the lanyard may be exposed to abrasive edges or hot surfaces.

Dee-rings and snap hooks shall have a minimum tensile strength of 5,000 lbs. They shall be proof-tested to a minimum load of 3,600 lbs.

When worn but not in use, ensure the lanyard is wrapped or tucked in so as not to present a tripping hazard.

G. Retractable Lifelines

These devices are designed to arrest the fall within 2 feet.

Never allow these devices to retract uncontrolled as the cable may be damaged or may hit and injure personnel. This may require the use of a tag line to extract and retract the line.

These devices must be positioned overhead and used in a manner to prevent a swing fall impact.

H. Vertical Lifelines

These must have a formed eye or other approved termination on one end for suspension from the anchorage point and must extend below the lowest level of travel.

The grab device must be compatible with the size and type of cable used and should remain above the shoulders of the user.

Only short lanyards should be connected to a vertical lifeline in order to ensure a minimum fall distance.

The lower end of the lifeline must be either attached to a second anchor point or weighted down to provide stability.

Only one person can utilize a vertical lifeline at any given time.

I. Horizontal LifelinesA qualified person must design horizontal lifelines. They should never be installed where the line is taut or has excessive slack.

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If the span of the lifelines requires intermediate supports, these must be designed to allow freedom of movement throughout the length of the lifeline. If not, a dual lanyard will be required to maintain continuous fall protection.

Training and Education Requirements

Employees required to use fall protection must successfully complete the refinery's fall protection training course. Refresher training is required, at a minimum, every three years.

Training must be documented with the name of the employee, the signature of the person conducting the training, and the training date. Training must include:

- Overview of Walking, Working Surfaces key regulations
- Identification of Fall Hazards
- Dropped Objects Prevention
- OSHA's Hierarchy of fall prevention and protection
- Fixed ladder safety requirements
- Portable ladder safety requirements
- Selecting and using Personal Fall Arrest systems, includes donning/doffing PPE and equipment limitations
- Basic rescue considerations
- Equipment Inspection requirements
- Scaffold access and fall prevention

Additionally, as applicable:

- Loading rack or truck applications
- Aerial Lift use and fall protection

Contractors must train their employees as required per OSHA and CalOSHA for craft/task specific hazards. Contractors must also follow this RSI while working on the refinery's property.

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