29CFR 1910.28- Crawling Boards, Roofing Brackets, **29CFR 1926.104,105**- Safety belts, lanyards, lifelines and Safety Nets, **29CFR 1926.451**- Roofing Brackets, Catch Platforms
29CFR 1926 Subpart M- Fall Protection

Roof Labor Safety

Preparation

1. Read Applicable Background information and related Company Policy Chapter.
2. Make _____ Copies of this Lesson Plan for Personnel
3. Make Transparency, procure transparency pens, etc.
4. Coffee, tea, snacks

Material

1. Tie-Off Equipment the Employee is expected to use
2. Personal Protective Equipment

Objective

By the end of this session, personnel shall be able to describe:

1. Employee Training
2. Catch Platforms
3. Safety Belts, Lifelines, and Lanyards
4. Safety Nets
5. Roofing Brackets
6. Crawling Boards (Chicken Ladders)
7. Use of Hoisting Lines
8. Work Site Isolation
9. Personal Protective Equipment

Background

Roof construction, repair, and other maintenance operations often require manual labor at dangerous heights and on steeply pitched working surfaces. The possibility of lost footing, decreased stability, and objects falling from such heights is great; appropriate employee safeguards shall be present. When employees of the Company are involved in such operations, the following minimum safety guidelines shall be followed to promote a safe and healthful workplace and guard against injury to others below the work area.

Notes

Lesson

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TRAINING

Each department head whose employees are required to perform duties on roofs shall insure that they receive safety training and comply with the minimum standards as specified in this document.

CATCH PLATFORMS

A substantial catch platform shall be installed below the working area of roofs more than 20 feet from ground to eaves without a parapet, or 16 feet from ground to eaves with a slope greater than 4 inches in 12 without a parapet. The platform shall extend 2 feet in width beyond the projection of the eaves and shall be provided with a safety rail, mid-rail, and toeboard. This provision shall not apply where employees engaged in work upon such roofs are protected by a safety belt attached to a lifeline.

SAFETY BELTS, LIFELINES, AND LANYARDS

Where catch platforms are not in place, employees performing duties on a roof more than 20 feet from ground to eaves without a parapet, or 16 feet from ground to eaves with a slope greater than 4 inches in 12 inches without a parapet, shall be secured by an approved safety belt attached to a lifeline.

The safety belt lanyard shall be a minimum of 1/2- inch nylon, or equivalent, with a maximum length to provide for a fall of no greater than 6 feet. The rope shall have a nominal breaking strength of 5,400 pounds.

Lifelines shall be secured above the point of operation to an anchorage or structural member capable of supporting a minimum dead weight of 5,400 pounds. One employee acting as anchor for another does not fulfill this requirement.

Lifelines used in areas where they may be subjected to cutting or abrasion, shall be a minimum of 7/8-inch wire core manila rope. For all other lifeline applications, a minimum of 3/4- inch manila or equivalent, with a minimum breaking strength of 5,400 pounds, shall be used.

Lifelines, safety belts, and lanyards shall be used only for employee safeguarding. Ropes used for hoisting lines and other purposes shall not be used as lifelines. Any lifeline, safety belt, or lanyard actually subjected to in-service loading, as distinguished from static testing, shall be immediately removed from employee safeguarding.

SAFETY NETS

Where the use of ladders, scaffolds, catch platforms, temporary floors, safety lines, or safety belts is impractical, safety nets shall be provided when workplaces are more than 20 feet above the ground, water, or other surface.

ROOFING BRACKETS

Roofing brackets shall be constructed to fit the pitch of the roof.

In addition to the pointed metal projections, brackets shall be secured by nailing in place. The nails shall be driven full length into the roof. When rope supports are used, they shall consist of first-grade manila of at least 3/4-inch diameter, or equivalent.

CRAWLING BOARDS OR CHICKEN LADDERS

Crawling boards shall not be less than 10 inches wide and one inch thick, having cleats 1 x 1-1/2 inches. The cleats shall be equal in length to the width of the board and spaced at equal intervals not to exceed 24 inches. Nails shall be driven through and clinched on the underside. The crawling board shall extend from the ridgepole to the eaves when used in connection with roof construction, repair, or maintenance.

A firmly fastened lifeline of at least 3/4-inch rope shall be strung beside each crawling board for a handhold.

Crawling boards shall be secured to the roof by means of adequate ridge hoods or equivalent effective means.

USE OF HOISTING LINES

When hoisting lines are used to raise tools or materials to a roof greater than 16 feet from ground to eaves without a parapet (or with a parapet less than 30 inches in height), the employee on the roof shall be secured by an approved safety belt attached to a lifeline.

The safety belt lanyard shall be a minimum of 1/2- inch nylon, or equivalent, with a maximum length to provide for a fall of no greater than 6 feet. The rope shall have a nominal breaking strength of 5,400 pounds.

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WORK SITE ISOLATION

Prior to the start of roof construction, repair, or maintenance, the crew chief, foreman, or person in charge of the project shall insure that the area below the work site is isolated against entry by the use of barrier tape or other means.

If means of egress are to be blocked by ladders, scaffolds, or other equipment, or to isolate below a work site, prior approval must be obtained from an Environmental Health Services Department representative.

PERSONAL PROTECTIVE EQUIPMENT

Employees involved in roof construction, repair, or maintenance operations shall use appropriate personal protective equipment including, but not limited to, hard hats, eye protection, and leather gloves.

Notes

Closure

Additional Safety Lessons regarding Roof Labor Safety will include “Fall Protection” and “Ladder Safety”. You will be trained in these areas as well. Remember: Under no conditions are safety belts permitted to be used (solely) by themselves as fall protection. The only type of Fall Protection Device you are permitted to wear is a **Full Body Harness.**

What questions do you have?

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