



ROOFTOP SAFETY

**Leader's Guide, Fact Sheet
& Quiz**

Item Number: 4310
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This easy-to-use Leader's Guide is provided to assist in conducting a successful presentation.

PREPARING FOR THE MEETING

Here are a few suggestions for using this program:

- a) Review the contents of the Fact Sheet that immediately follows this page to familiarize yourself with the program topic and the training points discussed in the program. The Fact Sheet also includes a list of Program Objectives that details the information that participants should learn from watching the program.
- b) If required by your organization, make an attendance record to be signed by each participant to document the training to be conducted.
- c) Prepare the area and equipment to be used for the training. Make sure the watching environment is comfortable and free from outside distractions. Also, ensure that participants can see and hear the TV screen or computer monitor without obstructions.
- d) Make copies of the Review Quiz included at the end of this Leader's Guide to be completed by participants at the conclusion of the presentation. Be aware that the page containing the answers to the quiz comes before the quiz itself, which is on the final page.

CONDUCTING THE PRESENTATION

- a) Begin the meeting by welcoming the participants. Introduce yourself and give each person an opportunity to become acquainted if there are new people joining the training session.
- b) Introduce the program by its title and explain to participants what they are expected to learn as stated in the Program Objectives of the Fact Sheet.
- c) Play the program without interruption. Upon completion, lead discussions about your organization's specific policies regarding the subject matter. Make sure to note any unique hazards associated with the program's topic that participants may encounter while performing their job duties at your facility.
- d) Hand out copies of the review quiz to all of the participants and make sure each one completes it before concluding the training session.

4310 ROOFTOP SAFETY FACT SHEET

LENGTH: 7 MINUTES

PRODUCTION YEAR: 2020

PROGRAM SYNOPSIS:

Rooftop work can be very dangerous. Each rooftop location must be thoroughly surveyed before any work begins. Rooftop access will be discussed as well as the protection required for the edges of the roof. This program covers guardrail systems, warning line systems and the proper personal fall protection required to work safely on a rooftop.

PROGRAM OBJECTIVES: After watching the program, the participant should be able to explain the following:

- What to look at during a pre-work assessment;
- The use of parapets and guardrail systems;
- The specifications of a personal fall arrest system;
- When to use warning lines and covers for holes;
- The equipment needed to perform a controlled descent.

PROGRAM OUTLINE

PRE-WORK SURVEY

- Each rooftop location must be thoroughly surveyed before any work begins.
- When conducting rooftop prework assessments, the company representative shall make note of anchorage points.
- If no, or limited anchorage points exist, the representatives should explore the possibility of adding anchor points with the customer, client owner or general contractor.
- In addition to anchorage points, roof access points shall be discussed with the following the customer, the client, the owner, and general contractor.
- The lead person on site will complete the rooftop fall protection checklist for each rooftop project. This must be completed prior to any work being performed. Contact your health and safety manager to discuss any concerns or answer any questions.
- If the checklist is acceptable, the health and safety manager will approve the plan and procure any additional fall protection equipment needed to complete the work safely.

PARAPET AND GUARDRAIL SYSTEMS

- When employees or contractors perform rooftop work, they shall utilize one of the following systems, or a combination of these systems.
- Parapet wall shall be at least 39 inches in height and completely surround the crew's work area.
- Midrails shall be installed at a height midway between the top edge of the guardrail system and the walking/working level.
- Guardrail systems shall be capable of withstanding, without failure, a force of at least 200 pounds applied within two inches of the top edge in any outward or downward direction at any point along the top edge.
- Never approach an open side or edge without fall protection.

PERSONAL FALL ARREST SYSTEMS

- A fall restraint system is a combination of an anchorage point and adjustable lanyards which automatically limit freefall distance to less than two feet.
- A personal fall arrest system uses a combination of a full body harness, 5000-pound anchorage point and a shock absorbing lanyard or vertical lifeline with rope grab or a horizontal lifeline with a shock absorbing lanyard attached.
- When using a personal fall arrest system, you must ensure the employee cannot contact a lower level during a fall. The freefall distance must be limited to six feet.
- Never use unauthorized anchor points such as lightning protection, electrical conduit, coax cable or guardrails and never connect a lanyard back to itself unless designed to do so by the manufacturer.
- Use only authorized anchor points suitable for supporting 5000 pounds per person attached.

WARNING LINE SYSTEM

- A warning line system shall be employed 15 feet from the roof's unprotected side or edge. Warning lines shall consist of ropes, wires or chains and supporting stanchions, erected as follows.
- The rope shall be flagged at not more than 6-foot intervals with high visibility material.
- The rope shall be rigged and supported in such a way that its lowest point, including sag, is not less than 34 inches from the walking or working surface and the highest point no higher than 39 inches from the walking or working surface.

- After being erected the rope cone or support shall be capable of resisting, without tipping over, a force of at least 16 pounds applied horizontally towards the roof edge. The rope shall have a minimum tensile strength of 500 pounds.
- The line shall be attached at each support in such a way that pulling on one section of the line between supports will not result in slack being taken up in adjacent sections before the stanchion tips over.
- Points of access, materials handling areas, storage areas, and hoisting areas shall be connected to the work area by an access path borne by two warning lines.
- When employees work outside this warning line area, employees shall use one of the previous fall protection systems discussed: guardrails, parapet wall fall restraint and personal fall arrest systems.

HOLES AND COVERS

- Crews shall utilize a fall restraint system, fall arrest system covers or a guardrail system when employees are exposed to fall hazards of six feet or more through holes, including skylights and entryways.
- When guardrail systems are used around holes which are used as points of access, such as ladderways, they shall be provided with the gate or be so offset that a person cannot walk directly into the hole.
- In some cases, covers can be used to eliminate fall hazards.
- The cover shall meet the following requirements: able to withstand at least twice the weight of employees, equipment and materials that may be imposed on the cover at any time.
- Covers shall be secured to prevent accidental displacement. Cover shall be color coded or marked with the word whole or cover.

CONTROLLED DESCENT OPERATIONS

- While performing controlled descent operations, you will utilize a two-rope system, an approved descent device, such as the Petzl I'D, and a rope grab device.
- SBA utilizes a 1/2-inch kernmantle rope as the descent line and a 5/8-inch braided nylon rope with manufactured eyelets as a vertical lifeline. Each rope shall have a minimum breaking strength of 5600 pounds and be attached to approved anchor points, each separate from the other.
- This two-rope system shall be accomplished by attaching a rope grab and a maximum 3-foot fall arrest lanyard to the vertical lifeline and the user's dorsal D ring.
- The descent line shall be attached to the user's harness with a compliant decent device.

CONCLUSION

- Well, that's a lot of information, but it's vital that you understand it completely.
- Working at heights is serious business, and you need to know how to do it safely. If you have any questions, now is the time to ask them before an accident occurs.
- We take safety seriously and expect you to do the same.

ROOFTOP SAFETY

ANSWERS TO THE REVIEW QUIZ

1. c

2. a

3. b

4. a

5. a

ROOPTOP SAFETY

REVIEW QUIZ

The following questions are provided to determine how well you understand the information presented in this program.

Name _____ Date _____

1. The parapet wall shall be at least _____ in height and surround the crew's work area completely.
 - a. 12 inches
 - b. 20 inches
 - c. 39 inches
 - d. 52 inches

2. When using a personal fall arrest system, use only authorized anchor points suitable for supporting 5000 pounds per person attached.
 - a. True
 - b. False

3. A warning line system shall be employed 30 feet from the roof's unprotected side or edge.
 - a. True
 - b. False

4. When guardrail systems are used around holes which are used as points of access, such as ladderways, they shall be provided with the gate or be so offset that a person cannot walk directly into the hole
 - a. True
 - b. False

5. Each rope in a descent device shall have a minimum breaking strength of 5600 pounds and be attached to approved anchor points, each separate from the other.
 - a. True
 - b. False