



# STEP AND EXTENSION LADDER SAFETY



## Introduction:

### Why are we talking about step or extension ladder safety?

- ✓ Today, we will start this tailgate training by showing a video about Hans Petersen. Hans was a junior solar installer, who died after he fell 45 feet off the roof of a three-story apartment building. After the video we will discuss why Hans fell. While the video is about working on a rooftop, we will talk about some lessons to be applied regarding ladder safety hazards at this jobsite.
- ✓ Falls are the leading cause of construction worker injury and death.
- ✓ Falls are not only deadly but can cause serious injuries that result in many days off work or long-term disabilities.

**Show Video:** *CDPH/FACE: Preventing Falls in the Solar Industry* (5-6 min)

### QUESTIONS TO ASK THE CREW AFTER SHOWING THE VIDEO:

1. In the video, Hans is on the roof checking the alignment of mounting rails without wearing any personal fall protection equipment. How often do you see workers on roofs without fall protection?
2. While Hans was walking backwards, what are the main reasons he fell off the roof?
3. Have you or someone you know ever had a serious fall? Can you tell us about it?

#### ***Let's talk about ladder safety on this jobsite:***

4. Although the video explains how to prevent falls from a roof, what are some of the same lessons to be applied regarding ladder safety at our jobsite?
5. **Ask the crew:** Are there any problems with scaffold safety on our jobsite? How can they be solved?
6. Have a volunteer demonstrate the right way to set up a step or extension ladder. Have the crew ask questions and provide suggestions while this is happening.



## SAFETY BREAK



## ➔ Key training points *(taught best through demonstration)*

### Examples of ladder hazards

- ✓ Broken or defective ladders.
- ✓ Ladder is on slippery or uneven surfaces.
- ✓ Not using the right length and load capacity ladder for the job.
- ✓ Using metal ladders near live electrical wires or parts.

### Step Ladder

#### Do's:

- Always open the step ladder fully before using it and lock the hinge arms.
- When climbing up or down, always face the step ladder.

#### Don'ts:

- Don't use an unopened step ladder as a straight or extension ladder.
- Don't stand higher than the second step from the top.
- Never reach far to do your work. Move the ladder to a better position.

### Extension Ladder

#### Do's:

- To climb to a roof or platform, extend the top of the ladder at least 3 feet past the edge it's resting against.
- Place the ladder at a safe angle. Position ladder base from the wall about  $\frac{1}{4}$  of the ladder's total length.
- Create a level and firm base for the ladder.
- Tie the ladder off at the top/ secure the bottom.
- Use extension ladders for access, not as platforms. It's often safer to work from scaffolding, aerial, or scissor lifts.
- Use proper climbing procedures (3 points of contact: two hands and one foot, or two feet and one hand.)

#### Don'ts:

- Don't carry tools, equipment, or material in your hands while climbing. Instead, wear a tool belt or use a hoist line or gin wheel for lifting/ lowering.
- Never stand higher than the fourth rung from the top.
- Never reach far to do your work. Move the ladder to a better position.
- Never use a shorter length or lighter load ladder than the work calls for.

### AFTER THE TRAINING, EMPLOYER ACTIONS TO TAKE:

Example: Inspect ladders together. Broken or defective ladders should be thrown away.

1. \_\_\_\_\_
2. \_\_\_\_\_

### AFTER THE TRAINING, SAFE WORK PRACTICES THAT WORKERS CAN DO:

Example: Always open step ladders fully and lock hinge arms before using.

1. \_\_\_\_\_
2. \_\_\_\_\_