SKYLIGHTS, ROOF AND FLOOR OPENINGS

8A SOLAR VIDEO

Introduction:

Why are we talking about skylights, roof or floor openings?

- ✔ 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 talk about why Hans fell. While the video is about working safely on a rooftop, we are going to be talking about some lessons to be applied regarding safety around our skylight/openings hazards on 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 safety around skylights, roof and floor openings on this jobsite:

4. Are there skylights, roof or floor openings near our work areas?
5. How close to them can you work without needing guarding, coverings or fall protection?
6. Are the openings all guarded or covered? What are the requirements for a safe guardrail, cover, or screen?

Key training points *(taught best through demonstration)*

Guardrails

- ☐ Guardrails must be installed at the open sides of all work surfaces that are 7 1/2 feet or higher, or workers must wear fall protection.
- ☐ Guardrails should be placed along open edges of roofs, floors, shafts, runways, ramps, elevated platforms, and also placed on scaffolds and formwork.
- ☐ Guardrails should be constructed of wood or similar substitute materials. Top rail should be at 42" to 45" from the floor and have a midrail. Must withstand a 200 lb load. Toeboards should be 4 inches high and be placed anywhere along edges of platforms that workers pass under.
- ☐ Guardrail cables must be at least 3/8" in diameter.
- ☐ Guardrails are not allowed to be used as anchor points for fall protection.

Covers

- ☐ Covers shall be designed by a qualified person to be capable of safely supporting 400 pounds or twice the weight of the worker and equipment, whichever is greater.
- ☐ Covers must be secured in place to prevent accidental removal.
- ☐ Covers must not project more than one inch above the floor level. They must have painted or stenciled letters not less than one inch high stating **Opening – Do not Remove.**
- ☐ Floor openings are 12 inches wide or greater. Holes are less than 12 inches wide, but large enough to step into or drop a tool through. Both must be covered, regardless of height.

Screens

- ☐ Screens shall meet the strength requirements equivalent to that of the covers specified above.
- ☐ Screen must be constructed and mounted so that under impact they will not deflect downward to break the glass below.

Fall restraint/Fall arrest systems

- ☐ Fall protection equipment shall be inspected before each use for wear and damage and inspected at least twice a year by a competent person following the manufacturer's guide.
- ☐ Lanyards must be rigged so worker does not hit the ground below.
- ☐ Anchor points must meet a 5,000 pound load for fall arrest, four times the load for fall restraint.
- ☐ There must be a rescue plan in case a fall occurs while using fall protection.

AFTER THE TRAINING, EMPLOYER ACTIONS TO TAKE:

Example: Confirm that no one is working within 6 feet of skylights/ edge openings.

1. _____

2. _____

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

Example: If you have to remove a floor opening cover, make sure you put it back and attach it.

1. _____

2. _____