

Instructor-Led
Safety Training

Fall Protection Safety Training

2020



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SAFETY TALK

YOUR FALL PROTECTION EQUIPMENT

Falls are one of the oldest causes of injuries and death. A worker is most at risk if working at heights of four feet or more; above running machinery, water and hazardous liquids, or exposed to an opening in a work surface. Fall protection equipment can mean the difference between life and death.

WHAT'S THE DANGER?

The risk of falling and exposure to fall hazards is typically higher on construction sites, but fall deaths occur in most industries. Fall hazards include working on sloping rooftops or roofs and floors with deteriorating materials, unprotected edges and unfavorable weather conditions. Even more dangerous, is lack of awareness which can lead to using inadequate or damaged fall protection equipment. For example, borrowing and using a, possibly defective, body harness without inspecting it.

HOW TO PROTECT YOURSELF

Fall protection comes in many forms, including scaffolds, guardrails, safety nets, and personal fall arrest systems. However, the fall protection you wear is your direct lifeline when it comes to stopping you in the event of a fall. All equipment shares similar safety components for the protection they give. To detect damages and prevent equipment failure while working at heights, a familiarity of these components is necessary.

Hardware is any metal part like a D-ring, used for connecting parts of fall protection equipment.

- Attachments should overlap and move freely, ensure locks are working.
- Inspect for damage, cracks, rust, bends, dents, sharp edges, corrosion and distortions.

Webbing is the woven fabric used for producing straps and belts like in a harness.

- Inspect for cuts, holes, loosening, burns, tears, scraping, wearing, stretching, dirt, chemical damage and discoloration.

Stitching (impact indicator): This is a section of the webbing with a special stitch pattern designed to release when the harness receives impact.

- Inspect for ruptured stitches, pulled or cut fibers and discard if noticed.

Ropes are specially blended synthetics or wires built for strength and stress resistance, normally used for descent control.

- Inspect for cuts, burns, abrasion, knots, excess dirt, discoloration, broken wires, corrosion, twists and separated strands.

Shock absorber is a unit of the lanyard with a built-in woven inner core that expands during a fall to reduce the force.

- Inspect for elongation, tears and excess dirt.

Label is a small piece of paper, fabric or plastic attached to equipment that carries important information.

- Ensure labels are in place, clean and readable.

Equipment built from the above components include:

Full body harness is secured around the body to distribute fall arrest forces over the thighs, pelvis, waist, chest, and shoulders.

- Inspect hardware, webbing, stitching and label.

Lanyards: Lanyard is a flexible line of webbing or rope, used to attach a body belt or full body harness to a lifeline or anchor.

- Inspect hardware, webbing, rope, stitching and shock absorbers.

Descent control device is used to safely lower a worker down.

- Inspect hardware, pulleys, and ropes.

Self-retracting device, like a car's seatbelt, releases when pulled gently and locks when speed or force is applied. This stops the downward motion of somebody falling.

- Inspect hardware: (screws, fasteners, housing, anchors, hooks), labels, webbing and stitching.
- Locking action and retraction by pulling out the lifeline and allowing it to retract.

Finally, keep your equipment working well and lasting long by following these guidelines.

- Follow manufacturer's instructions for care, storage, and use.
- Wipe off dirt with clean, wet sponge and repeat cleaning with water and detergent.
- Rinse webbing in clean water, wipe with a clean cloth and hang to dry.
- Store equipment away from dirt, direct heat, prolonged sunlight, fumes, corrosion and sharp edges.
- Always inspect equipment before use, replace defective equipment immediately, and do not use if in doubt.
- Ensure equipment is inspected at least annually by an authorized person.

FINAL WORD

Your fall protection equipment is your lifeline. Inspecting it before use is a must. For quality inspection, an understanding of fall protection equipment, their uses and components to be inspected is essential. The Canadian Standards Association (CSA Z259) guide and ANSI Z 359.2 2007 are two guides to reference for more detailed information.

DOWNLOAD SAFETY MEETING KIT

SAFETY TALK

USING YOUR FALL PROTECTION CORRECTLY

In the US more than 15,000 people die each year from falls, placing falls second only to motor vehicle collisions as the leading cause of accidental death. In Canada, more than 1,800 people die as a result of falling each year. And across North America, tens of thousands of workers are injured in falls every year, with many of these incidents occurring from a height where fall protection measures should have been taken but weren't.

WHAT'S THE DANGER

When you work off the ground, you need equipment to prevent falls and to protect you if you do fall. And you need training to properly choose, use and maintain that equipment. Yet, according to one study, about one-third of workers who are wearing harnesses don't have the leg straps attached. And half the people who die from falls have their harnesses on but not attached to anchor points.

EXAMPLE

A 19-year-old male construction worker fell from the roof of a five-story building through an opening of an elevator shaft to the concrete floor of the basement below. The opening had been covered with a loose metal roof curb, but there was no marking indicating the open shaft.

The worker, in anticipation of an approaching storm, was cleaning up loose materials on the roof. He lifted the roof curb and was pushing it away from himself when he stepped into the opening and fell to the concrete floor. He was transported to a local hospital, where he was pronounced dead. Investigators found that the young man had been wearing a fall harness and lanyard, but it was not tied off.

HOW TO PROTECT YOURSELF

Fall protection includes fall prevention equipment such as guardrails, toe-boards and hole covers, as well as protection equipment, such as safety nets and personal fall arrest systems (PFAS). PFAS may consist of a body harness, a lanyard with a shock absorber and a lifeline attached to an anchorage point. PFAS and safety nets are the least preferable and most misused type of fall protection. They don't prevent you from falling; all they do is prevent you from getting hurt or killed by hitting the ground—that is, if you're using them correctly.

If your job requires you to work above ground:

- Choose the appropriate fall protection. Be sure it's right for the task, fits properly and is in good condition;
- Inspect the fall protection equipment and devices, such as guardrails and tie-off points, before and after each use. Any damage can make the equipment useless in a fall and must be thrown away. And anytime a PFAS is subjected to a fall, it must be taken out of service.

- Carefully follow all the procedures you learned in your training for anchoring and tying off.
- Check that skylights, floor holes, open shafts and riser penetrations are protected by sturdy guardrails or covers.
- Contact your supervisor if you see fall hazards. Do not work until unsafe conditions have been corrected.

FINAL WORD

When using fall protection equipment, be sure you fully understand its use and its limitations. It takes only a second to fall. But the serious injury that results—if you even survive—can change your life forever.

DOWNLOAD SAFETY MEETING KIT

Saputo Edmonton

“SafetyNow helps in the employee interview portion of the audit process. Staff are always commenting on how much they appreciate SafetyNow's safety talks. It helps them be more aware of the hazards around the plant. There is no doubt that implementing SafetyNow has improved company morale.”

— Terri Digness, Quality Assurance Systems Supervisor

The Challenge

“In the past, Workers' Compensation premiums were through the roof,” says Terri Digness, Quality Assurance Systems Supervisor of Saputo Edmonton. From 2003 to 2005 the facility's injury claims were 5.88% higher than the industry average.

The Edmonton facility applied for the WCB-sponsored Partners Injury Reduction (PIR) program which the Quality Systems Supervisor now oversees. The goal of the program is to help companies in Alberta reduce their injury claims and in turn have their WCB premiums reduced by as much as 20%.

Earning a Certificate of Recognition requires an external safety audit – Certifying Partners conduct them on behalf of WCB. After the first year, the company does internal audits – the Quality Systems Supervisor became certified to do audits at the Edmonton facility. It's not until the fourth year that another external audit needs to be completed.

The Solution

Saputo engaged SafetyNow as part of their solution. The more than 15,000 safety tools available were a great fit. This facility now consistently uses the safety talks included in SafetyNow.

“It has definitely saved time, and I can tell the improved meetings have impacted my employees in a positive way – our accident rate is nearly nonexistent, and any accidents we have are very minor,” adds Robin.

The wide variety of safety talks available means there is something for every department and every occasion.

The Results

Implementing SafetyNow along with the PIR program produced dramatic results. In 2006 Saputo's injury claims were 23.65% lower than the industry average. In addition, the Alberta Workers Compensation Board returned more than \$148,000 in premiums.





TRAIN THE TRAINER

TEACHING FALL PROTECTION - HOW MAKE AN IMPACT

Fall protection is a complex subject. It takes hours, if not days, just to come to grips with the regulatory requirements. And the regulations represent only a minimum standard. As safety professionals, we should be concerned with not just meeting the regulations but going beyond them. That might involve implementing voluntary standards from organizations such as ANSI and CSA. And, of course, we must also consider the recommendations of the PPE and equipment manufacturers.

When you teach fall protection, regulatory requirements are one of the things to cover. But also try to present a more holistic view—to put the fall protection issue into perspective in a way that is meaningful to the workers. Here's an approach you can use.

START WITH THE FACTS

When training workers, your goal should be to make sure they know how to assess the risks associated with their job. You don't want employees to follow safety training only during the 30 minutes that you're there. You want them to do it all the time because it's the safe thing to do. To get this result, you have to impress upon the crew the seriousness of falls. Fall protection is not a topic to be sugar-coated. Start your training sessions with these facts:

- Falls are the greatest cause of fatalities in construction;
- 50% of falls over 11 feet result in fatalities. (Since this is an average, some falls under 11 feet are also fatal.);
and
- It takes just one second to fall 16 feet.

You can deliver this last statistic as a pop quiz: “How long does it take to fall 16 feet?” Pause a few seconds, then snap your fingers with the response. “That’s it—one second!”

DEBUNK THE MYTHS

After delivering the statistics, remove the mental safety net many workers rely on. Tell the class: “If you go over the edge, that’s it, you are gone! Your buddy may feel sorry for you, but he is not going to be able to grab you to pull you back.”

Of course, there’s always someone who thinks they will catch something on the way down. But talk with workers who have fallen with no fall protection (including through scaffolding). Odds are not one of them said they were able to grab something to stop the fall. All they did was beat themselves up on the way down.

To emphasize the point, stand with one arm straight out from your shoulder, and ask what would happen if you fell from 100 feet and grabbed something halfway down. The answer is always that you’d pull your arm off.

TEACH BASIC RISK ASSESSMENT

Now you have the class thinking about falls. For the remainder of the class, ask them to consider:

- What is required (what the regulations say); and
- What should be done (what is the safest or best industry practice)?

Then ask: When should you use / or need fall protection? It usually takes about 3 or 4 minutes before they come up with the desired response, “When you can fall and get hurt!”

To make the point that they should not concentrate on the “Minimum Standard of 10 feet,” it’s time for another pop quiz: If a person is six feet tall and they are on a ladder with their feet at the five-foot level and they fall, how far do they fall?

Answer: 11 feet (their head falls 11 feet to the floor), which may put them in the 50% fatality category!

This is the thinking part to which you have led the class and now they should be ready to participate in a meaningful lesson on fall protection details.

* OSHA requires fall protection be provided at elevations of four feet in general industry workplaces, five and six feet in the construction industry. In many jurisdictions in Canada, the minimum standard for construction is 10 feet or 3 meters.

CONCLUSION

The main point here is to get people to think for themselves and to develop as second nature two basic concepts when working at heights:

- The primary goal is not to fall.
- The secondary goal is to fall the least distance possible.

If your crew follows these lessons, they won’t have to worry about remembering all of the regulatory technicalities.

PICTURE THIS

FALL PROTECTION IS NOT A TEAM EFFORT!

These workers are taking a potentially deadly risk by tying off to one another. If one were to fall, the other would surely follow and the chance of the fall protection equipment and/or anchor point failing is SKY HIGH!

The only thing a worker should ever tie off to is an anchorage point that meets or exceeds requirements set forth by federal or jurisdictional regulations. A co-worker's harness is NOT designed to be used as anchorage point.

Most safety regulations and voluntary consensus standards necessitate anchorages and anchorage connectors:

- Must support 5,000 pounds (22.2 kN) per employee attached; or
- Be designed, installed and used under the supervision of a qualified person as part of a complete personal fall arrest system which maintains a safety factor of at least two; and
- Be located high enough for a worker to avoid contact with a lower level should a fall occur



Capital Power Corporation

“Before we utilized SafetyNow’s unique integrated training platform, which allows us to coordinate eLearning and instructor-led training all from one single platform, giving safety talks across our facilities was a huge undertaking. Thanks to SafetyNow’s universal accessibility, customizable features, and engaging material, setting up safety talks now is a breeze.”

— Marcia Chiang, Senior Safety Consultant, Capital Power

The Challenge

According to Marcia Chiang, Senior Safety Officer, “With over 1,000 employees and 35 locations, it has been extremely difficult staying up-to-date with all the orientation training as well as the refresher training – including courses on Hazard Communication and Fire Protection. I have to rely on a variety of safety officers at a multitude of facilities. Each one has their own style of giving safety talks, tracking participation, and presenting information. Trying to coordinate a uniform safety program across all locations was a big challenge.”

The Solution

“Instead of relying on each safety officer to conduct the training at each location, the responsibility of training now falls on the employee with the SafetyNow online courses. Being able to manage the training at your fingertips is a huge advantage,” says Chiang.

“The reports are also very user friendly. The SafetyNow LMS allows us to monitor which employees have taken the training and which employees have not. The customization feature is very easy to use. I have added PowerPoint slides and photos to our current training modules. Employees enjoy viewing video segments rather than solely following a PowerPoint presentation, and are much more engaged in the material.”

The Results

Capital Power Corporation has found the SafetyNow eLearning System to be an extremely effective solution that saves time, eliminates travel, provides employee input, and allows course content to be updated almost immediately. It enables Capital Power to collect and track information on employee progress and allows instantaneous feedback.

“Since we started using SafetyNow, we have received positive feedback from all of our safety supervisors. Our safety protocols are now universal across all facilities, eliminating a lot of confusion and ensuring that we stay compliant with 100% of the laws 100% of the time,” adds Chiang.

“It also allows the supervisors to customize the program to their style and tailor it to their employee’s needs, which is essential to driving interest and increasing awareness of safety issues. Overall I have nothing but good things to say about SafetyNow, and highly recommend it!”



DON'T WASTE TIME & EFFICIENCY

FIND OUT MORE ABOUT FALL PROTECTION ON SAFETYNOW ILT

85% of safety managers think their meetings are not engaging. 76% of safety managers think employees are more interested in their phones than their safety message. SafetyNow ILT is the largest online library of compliant safety meeting kits - everything you need to deliver an engaging safety meeting on any topic in the click of a button.

EXCLUSIVE MEMBERS FALL PROTECTION SAFETY TRAINING

- Workplan: 8 Components of a Fall Protection Plan
- Fall Protection Training Verification Form
- Are You Using Your Fall Protection Equipment Correctly?
- Safety Talk: Fall Hazards and Falls from Heights
- Ask the Expert: Fall Protection and Scaffolds
- Fall Protection Equipment Checklist

And much more on SafetyNow ILT

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