



Craig Safety TECHNOLOGIES

Construction Tool Box Talks



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Table of Contents

Getting Started.....	3
General Building Site Safety.....	6
Attendance Record.....	7
Hot Works/Welding/Compressed Gas.....	8

Getting Started

Why Safety Meetings are Important

Not long ago a worker was given the job of covering some large holes in the floor of a wooden elevated work platform to prevent someone from falling through accidentally. The worker decided to place large sheets of plywood over the openings.

While placing a panel of plywood they failed to notice that one edge of the panel was just barely supported at the side of the opening. Later, the worker stepped on the edge of the panel. The panel slipped, tilted and dropped many feet below to their death.

One way to prevent this type of accident is to “tack-nail” each panel with a few nails to secure it properly in place, as it is placed. In this case two or three pennies worth of nails would have saved that person’s life.

But, was it only the lack of a few cents worth of nails? Absolutely not! It was not only the lack of a few nails, but more important it was the lack of “safety sense” or a lack of simple “know how” that killed that person.

In almost every job there are possibilities of injuries-even death. It is important to question everything while working. Size up each job, each machine, each tool used, and apply the best “safety sense” to everything done. Develop the habit of seeking and learning simple “know-how” that might save a life or limb. Always ask, “Can I get hurt if I do the job this way?”

Guidelines for Safety Training Meetings

- The foreman or supervisor is responsible for preparing and conducting Safety Training Meetings for employees **on a weekly basis**.
- These meetings are an essential element of the Project’s Safety and Health Training Program. It is a proven fact that projects that conduct good meetings attain better safety records than those that have poor or no safety meetings.
- In order to assist in the preparation of the materials and in the presentation a safety training meeting, the following guidelines are provided:

Preparing for the Meeting

- Select the topic for the meeting several days in advance to become familiar with

the subject to be discussed. Present the talk in a convincing manner without reading it.

- Schedule the meeting at the same time every week, if possible, and hold it right in the work area. These meetings are generally 5 to 15 minutes in length so seating is not important. However, make sure everyone can easily see and hear. A good time to hold the meeting is just after a shift begins or immediately following the lunch breaks.
- Just prior to the meeting, gather all the material and/or equipment needed. When possible, use the actual demonstrations to illustrate points. For example, when talking about fire extinguishers, have one to show what it looks like, and how it is used. Have a mushroomed tool head or a broken hammer handle to show how they can cause accidents. If necessary, get assistance from someone.
- The entire crew, if possible, should be present before the meeting is started.

Conducting the meeting

- Start the meeting on time. Loss of interest can occur if there are unnecessary delays.
 - Make the meeting short and to the point. However, if a good discussion is going, use discretion about cutting it off to soon.
 - Start the meeting by complimenting the workers on some recent jobs well done.
 - The presenter should use his own words. The background material in this manual is just to give ideas and facts as to what should be covered in a talk.
 - Get people to participate in the meeting. The purpose of these meetings is to get workers to think about safety problems. Encourage them to offer suggestions for improving safety in the work area or their craft.
- Maintain control. Do not allow the meeting to develop into a wasteful, time-consuming “bull session” or a time to complain. Other Items to Cover if Applicable
 - ✓ Review any injury any crewmember had during the past week. Discuss: what the injury was, how it happened, and how it could have been prevented.
 - ✓ Review safety violations noted during the past week. Discuss: the nature of the violation, the danger involved and offers constructive criticism without naming anyone in particular.
 - ✓ Review the work planned for the week ahead. Discuss: hazards to avoid or control, safety equipment to be used, and safe procedures to be followed.

Record Keeping Requirements

- ✓ Make a copy of the attendance sheet found at the beginning of this manual for use at each meeting.
- ✓ Have each employee sign the attendance sheet the conclusion of the meeting and the supervisor conducting the meeting must sign it. A copy of the Attendance Sheet must be forwarded to the Safety's Manager's office.
- ✓ Make certain it is dated and the crafts attending and the meeting location are listed.
- ✓ Subjects discussed must be covered in detail. "General Safety" is not specific enough.

The contractor should consult with the Craig Safety Consultant or a Safety Manager to obtain the latest updates to this material or to receive additional information.

Safety Reminders

The following basic safety requirements should be followed:

1. All guards and covers should be replaced after adjustments or maintenance of equipment.
2. Make sure handrails and walkways are in good repair and clear of tools, spare parts and obstructions.
3. Never adjust or lubricate equipment while it is operating.
4. Stand clear of hauling equipment that is dumping material into a hopper or anywhere else.
5. Always look around equipment before starting to make sure no one is near moving parts, making inspections or adjustments.
6. Do not drop material or tools from walkways or ladders without barricading the area below or having someone standing by to keep other persons away from the danger area.
7. Blocking under and around equipment or structure must be of suitable material and properly placed to support the structure. Periodically check blocking for signs of failure or shifting that could allow structure or equipment to fall.
8. Only electricians should handle any kind of work on electrical equipment. Avoid touching any loose or misplaced electrical wires. Consider them all dangerous.

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9. Mark all flammable materials: such as oils, grease and gasoline. Store these materials in an incombustible building situated always from other structures. NO SMOKING while handling flammable materials.
10. Proper clothing while on the job is important. Wear sturdy shoes to protect feet. Do not wear loosely hanging or torn clothing on the job. This type of clothing can get caught in moving parts of the equipment and generally hinders work. Wear gloves whenever possible. The use of hard hats and safety glasses or goggles is definite safety protective equipment and must be worn when required.
11. Think safety! Having and maintaining an attitude of safety on the job greatly reduces the chances of injury. Point out hazards and instruct new employees on safety.

General Building Site Safety

This section is not meant to cover every rule related to general building site safety, but to give an overview.

Some of the topics you want to touch on during an overview of general building site safety include:

1. Awareness of heavy equipment and machinery moving around on the site, and how to operate the ones required for the individual's job.
2. Picking the right tool for the job, and using it properly.
3. Knowledge of specialized procedures related to work the employee may be involved in on the general building site, like:
 - Blasting/explosives
 - Confined space entry
 - Excavating
 - Lockout/Tagout
 - Welding
4. Wearing the proper personal protective equipment (PPE) for the work being performed.
5. Stop working! Correct the safety hazards or notify the appropriate supervisor so they can correct the safety hazard.
6. By doing the above items during the work day, the odds are your site will be much safer.

Toolbox Talks Attendance Record

Company Name: _____

Topic Presented: _____

Date Presented: _____

Presenter Name (print): _____

Presenter Signature: _____

Attendee Name (print):

Attendee Signature:

_____	_____
_____	_____
_____	_____
_____	_____
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Hot Works/Welding/Compressed Gas

Use Care with Compressed Air

A mechanic with a small cut on his hand washed some machine parts in a solvent. To dry them, he held the parts in a compressed air stream. A few minutes later he told his supervisor he "felt like his body was going to explode!"

With such unusual symptoms, the injured worker was rushed to a hospital. Doctors decided that the compressed air had penetrated the cut on his hand and had forced air bubbles into his blood stream. Although the mechanic recovered from his self-inflicted injury, his mistake could have been fatal if an air bubble had reached his heart.

Injuries caused by the misuse of compressed air have occurred since this energy source was developed. In fact, compressed air is used so much that too many of us take it for granted, ignoring the hazards involved in its use.

In addition to the danger of air bubbles entering the bloodstream through a cut, a stream of compressed air can damage an eardrum or eye or inflate a part of the body.

Many people blow dust and dirt from their clothing, body or hair with compressed air. Even if the pressure is as low as 20 to 25 psi, when directed toward openings in the skin or body, air can penetrate causing serious injuries.

To prevent accidental injury when working with compressed air, here are several precautions to

follow: Avoid using compressed air for any type of cleaning.

Before operating an air hose, examine all connections to make sure they are tight and will not come loose under pressure; hold the nozzle when turning the air on or off.

Don't kink the hose to stop the air flow; always turn off the air at the control valve.

Check the air hose carefully to make sure it is in good condition before opening the valve to let air into the hose; when the job is finished, turn off the valves on both the tool and the air-line.

Keep air hoses out of aisle ways where they can be damaged by traffic or be a tripping hazard.

Never point a compressed air hose nozzle at any part of your body or at another person; never use compressed air for a practical joke. There have been cases in which a blast of air playfully directed behind a worker startled him, and caused him to fall against moving machinery.

Before turning on the air pressure, make sure that dirt from the machinery being cleaned will not be blown onto other workers; to prevent dirt from flying about, cover the equipment with canvas; only the operator should be in the immediate cleaning area.

The operator and any other workers who must be in the immediate cleaning area must wear eye protection and other necessary personal protective equipment.

Handling Gas Cylinders

How many of you realize how dangerous gas cylinders can be? Let me give you an example. A workman was unloading cylinders from a delivery truck. On one cylinder the valve was not protected by a cover. The workman rolled this cylinder to the hydraulic tailgate lift. Just as he stepped onto the tailgate, the cylinder slipped from his grasp and fell. The valve struck the ground and broke off. The full cylinder shot up like a rocket and smashed the workman's face as it headed for the wild blue yonder. The cylinder was found a quarter of a mile away from the job! The workman died a few hours later in a hospital. Cylinders have been known to plow through brick walls.

BEFORE MOVING CYLINDERS

Check the protective valve cover. The cap should be in place and secure. Never use this cover to lift the cylinder. Be sure the valve is closed. (Also, be sure the valves are closed when work is finished or cylinders are empty.) Never move cylinders when regulators are attached unless the cylinders are secured in a cylinder truck. Otherwise, remove the regulator and put on a protective valve cap. Regulators have a nasty habit of breaking off if they are bumped hard. If cylinders are frozen together during cold weather, the safest way to thaw them loose without damaging them is to use warm (not boiling) water. Never use pry bars for this job.

WHEN MOVING CYLINDERS

Move cylinders by slightly tilting them, then rolling them on the bottom edges. Take care not to let them drop or strike other cylinders or objects. Never use choker slings or magnets to hoist cylinders, since the chance of the cylinder failing is great. Hoist cylinders by using a cradle or pallet, making sure the cylinders are secure before the hoist. The workman we mentioned earlier probably didn't have a firm grip on the cylinder when it slipped. Perhaps his hands or gloves were greasy or oily. This mistake cost him his life. Don't you make the same mistake. Keep a firm grip on cylinders all of the time.

PROTECTING CYLINDERS

If cylinders are close to welding or cutting operations, place a fire resistant shield between the cylinders and these operations. In that way sparks, hot slag or flames won't be able to reach them. To keep standing cylinders from being knocked over, chain or tie them to a column or to something else that's secure. This goes for both full and empty cylinders. Even an empty cylinder can cause a lot of damage if it falls on you. Take the same precautions when handling empty cylinders that you would with full ones. The reason? A cylinder you may think is empty could be full. And the excuse "I didn't know it was loaded" is a poor one. When using different types of gas; segregate cylinders containing one kind of gas from another.

DON'T LET CYLINDER ACCIDENTS SKY-ROCKET

When handled or stored incorrectly, a cylinder can go up like a rocket. And, as we have seen, it not only can cause property damage, but death. Use common sense and good judgment, and keep cylinder accidents down.

Welding Fires

One of the worst factory fires in history was started by sparks from a portable welding outfit, which ignited liquid in a conveyor drip pan. The French liner, Normandie, which was being refitted to carry troops during World War II, was destroyed by a fire when welding sparks fell into waste wood and excelsior. An aircraft carrier fire in the Brooklyn Navy Yard in 1960 was started by welding sparks and slag falling into spilled motor fuel.

In each case, there either was inadequate protection or no protection of the flammable material from flame and sparks. The ships were steel, but filled with flammable material. The factory was steel, concrete, and glass, but contained flammable fixtures, stock, and process material. Practically any- thing can burn and be damaged if it gets hot enough. And there's plenty of oil, grease, and other combustible materials on any construction site in addition to the lumber and scrap.

HOW WELDING FIRES START

Fires from welding operations are started by sparks, hot slag, and flame from the torch. Sparks often drop or are carried long distances by the wind. Slag falls on surfaces or materials below. And a welding torch flame can ignite many substances within a radius of several feet. Be familiar with the standard safety rules for welding so you can spot and report any problems.

THE WELDERS' RESPONSIBILITY

When a welding operation moves into a work area, it's primarily the welders' duty to guard against fire. This means making sure there's no flammable material within range of the flame. Wood, paper or other combustibles should be removed. The welders also are responsible to see that no sparks or slag fall on combustible materials. Keep extinguishing materials, such as water or sand, on hand if you must weld near combustibles. You may even find it necessary to assign a worker with a fire extinguisher to stand by and put out sparks.

FLAMMABLE LIQUIDS

Welders should not begin working in any area where there are flammable liquids before checking with the supervisor. If you have to weld or touch any tank or drum that has contained flammable liquids or gas, don't start your work until an approved test shows that there's no danger of vapors present. Don't take anyone's word that the tank or drum was tested previously. Insist on a test just before starting your work.

COMBUSTIBLES

Where floors are combustible, welders must place fire resistant material beneath the work area, so that hot slag cannot contact the floor. Wood floors should be swept clean before welding over them, and should be covered with metal or some other material that won't burn. In some cases, it is advisable to wet the floor down. But remember that this adds a shock hazard, which must be guarded against if you are arc welding. Be sure there are no cracks into which sparks or slag may fall, and never allow this hot material to fall into concealed spaces between walls and floors.

You may have to protect openings, such as open doorways, with a non-combustible curtain. Be sure this curtain reaches to the floor, so that the hot slag can't roll under it. Ask yourself also if wind can carry sparks or slag over the side and down onto storage areas or adjacent property.

WELDING EQUIPMENT

Welders must keep cylinders a safe distance from where they are working, which means that hoses must be completely uncoiled. You should keep the tanks and hoses behind you, never in front where flame, heat, or slag will strike them. Hoses must be protected to keep trucks from running

over them, and people from walking into them or dragging things across them. Cylinders must be properly secured when in use and the caps in place during transportation.

VENTILATION

Good ventilation is a must for all welding operations. Many of these operations produce fumes that are harmful in heavy concentrations, and good ventilation is the only method of protecting yourself against this hazard. Screens around your work must be placed so as not to prevent good air circulation. Sometimes special ventilating equipment is necessary. If you have any doubt about the adequacy of ventilation on a job, ask the supervisor for his opinion. Don't weld in a small room or tank or other closed place without first making sure the ventilation is good.

When welders leave their equipment or stop work, they must shut off the oxygen and acetylene at the cylinders, so that no gas can enter either hose. And, of course, the rule for everyone except the welders is: "Hands Off All Welding Gear."

EYE PROTECTION

Eye protection is necessary on all welding jobs, and full face protection is needed on many jobs. The type of protection you've been told to wear on your operations has been proven necessary by experience.

Face and eye protection are needed in many operations performed by welders besides actual cutting and welding. That's why, for instance, electric welders need goggles as well as the regular helmet. Any welder may have to do a good deal of chipping. And this work, usually done with the helmet raised, can throw particles of metal into your eyes.

Basically, however, eye protection is designed to protect you against sparks, slag, molten metal, and flash burns caused by radiation from the welding equipment. If you follow the rules for wearing face and eye protection you won't have any face and eye injuries from cutting or welding work.

EVERYONE'S RESPONSIBILITY

*Remember that preventing welding fires is everyone's responsibility,
whether doing the actual welding or not.*