Eye and Face Protection

You may be aware that construction workers have the highest rate of eye injuries of any workforce. About 20 percent of all workplace eye injuries occur in construction. Eye injuries can be life-altering events—what would your life be like if you lost an eye, or if you lost both and were completely blind? No matter what kind of work you're doing, be sure to protect your eyes and face. These actions can help you protect your eyes:

Stay aware of your surroundings. You should always be wearing some type of eye protection on the job. If you're going to an area where they're sandblasting, get goggles. If you're working in an area where something could splash in your eyes, put on chemical goggles. Follow eye protection warning signs, especially if you're working in a factory.

Don't rely only on PPE to protect your eyes. Make sure guards are in place on tools and machines. Use safe work practices like aiming spray paints, sealants, etc., away from your face and not spraying in windy conditions.

Wear the right type of eye protection. Different activities require different kinds of PPE. For instance, cutting goggles are much better for cutting and brazing than regular safety glasses because they will protect your eyes from the bright light and infrared radiation. Safety goggles seal to your face to keep dust away from your eyes, so they are better in dusty locations. Or, if you'll be drilling overhead and sawdust or concrete dust is going to be raining down on your face, wear safety glasses and a full face shield. It may sound like overkill, but the face shield will keep the dust and chunks out of your eyes and out of your nose and mouth. The job will be less of a hassle.

Clean your safety eyewear regularly. Don't let fingerprints, smudges, and grime distort your vision. Wash your eyewear with water and mild soap. Then dry with a clean, soft, cotton cloth. Avoid using harsh chemicals because they might cause damage. Don't use lens wipes if the lenses have sand or grit on them; at least rinse them with water first.

Store safety glasses properly. Don't throw them in your toolbox or on a workbench where they could get damaged.

Be prepared in case of an eye injury. Know where eyewash stations are located. If you get chemicals in your eyes, flush with water for at least 15 minutes. If there is an object stuck in your eye, DO NOT pull it out. Get medical attention.

Correct your vision problems to prevent accidents. Visit your eye doctor if you notice you have to squint or strain to read, or if you feel like your current prescription needs to be updated. Wear eye protection that can be worn over your prescription glasses, or get a pair of prescription safety glasses (including side shields). Follow your employer's rules on whether or not you can wear contact lenses.

SAFETY REMINDER

Keep your eyes safe at home too. Wear eye protection when using chain saws, weed whackers, etc., and even when you're playing sports.

NOTES:

SPECIAL TOPICS /EMPLOYEE SAFETY RECOMMENDATIONS/NOTES:

S.A.F.E. CARDS® PLANNED FOR THIS WEEK:

REVIEWED MSDS # SUBJECT:

MEETING DOCUMENTATION:

JOB NAME:

MEETING DATE:

SUPERVISOR:

ATTENDEES:

These instructions do not supersede local, state, or federal regulations.

Overhead Power Lines

Electrocutions are among the top four causes of death for construction workers in the U.S., and contact with power lines is one of the most common electrical hazards. Overhead power lines are particularly dangerous. A residential power drop carries current at about 120 volts. High-tension transmission lines can reach 750,000 volts. When you work around overhead lines, plan ahead, keep equipment away, and work safely.

Start by planning ahead. Before you begin any work, identify overhead power lines on the jobsite, even simple power drops from a pole to a house. Keep in mind that you can get electrocuted even if you never touch a power line. If you're touching a tool or piece of equipment that touches a power line, you can be electrocuted. Just getting too close can be deadly because electricity can arc through the air from the power line to you or an object you are touching. Mark the locations of the lines on the site. Contact the utility company to confirm the voltages so you can look up the safe working clearances. If possible, have the utility company de-energize the lines and ground them. Alternatively, the utility company may be able to install insulated sleeves on the lines.

Keep equipment away from power lines. Cranes, aerial lifts, dump trucks, boom trucks, excavators, backhoes, bucket trucks, forklifts, scaffolds, and tele-handlers can easily come into contact with overhead power lines. Arcing is also a danger. The higher the voltage in the line, the more likely it is that electricity can arc to the equipment, even if the machine doesn't touch the line. Set up clear markers so operators know where overhead lines are located. Consider having a spotter help guide the operator when equipment is close to power lines. If you are operating heavy equipment and it comes in contact with a power line, stay in the cab until the lines have been de-energized. Avoid touching anything metal. If possible, try to move the equipment away from the wire.

Work safely around power lines. Always assume they are energized, bare, and dangerous no matter how they appear. Plan to use tools and materials that are non-conductive whenever you can. Carry long or tall items, like bull floats or sections of scaffolding, parallel to the ground to avoid contact with power lines. Retract ladders before you move them, and carry them parallel to the ground. Keep materials such as pipe, conduit, and siding away from power lines, and don't store materials underneath them either.

You have to stay aware of power lines, and all electrical hazards on the job. Make certain that you really understand the hazards of the specific overhead power lines that are on the job. Then make sure that steps are taken to reduce or eliminate those hazards. Ask questions if you aren't sure how to work safely around power lines.

SAFETY REMINDER

The dangers aren't always overhead. Treat extension cords and power cords on tools with care and respect, too.

NOTES:

SPECIAL TOPICS /EMPLOYEE SAFETY RECOMMENDATIONS/NOTES:

S.A.F.E. CARDS® PLANNED FOR THIS WEEK:

REVIEWED MSDS # SUBJECT:

MEETING DOCUMENTATION:

JOB NAME:

MEETING DATE:

SUPERVISOR:

ATTENDEES:

These instructions do not supersede local, state, or federal regulations.

THE INNOVATIVE EDGE

CCS

COMPOSITE CONSTRUCTION SYSTEMS

Preventing Cave-Ins

Anytime you are in an unprotected trench, you are putting your life at grave risk. You might think that you'll be safe if you're only in the trench for a few minutes; or maybe that you'll be safe because you can recognize the signs that the walls might give way; or maybe that you can outrun the collapsing walls. You're dead wrong on all three counts. Trench walls collapse completely in mere seconds, and without any noticeable warning. You probably wouldn't make it out even if you were standing on the bottom rung of the egress ladder.

If you're in a trench, and a wall collapses—even partially—you're in deep trouble. A single cubic yard of soil weighs about 3,000 pounds. Under that kind of weight, you can't move to dig yourself out. If the soil is as high as your chest or shoulders, the weight can make it impossible for you to expand your chest to breathe. Even a large chunk of clay that splits off the wall could break your leg or crush you. Witnesses say that cave-ins cause some of the most gruesome deaths in construction. However, it is possible to perform excavation work safely. Start with a proper protective system.

OSHA requires all excavations that are 5 feet deep or deeper to have one of four protective systems in place, unless the excavation is made entirely within stable rock, or a competent person has determined that there is no potential for a cave-in. The four types of protective systems are: benching, sloping, shoring, and shielding. A competent person must determine the type of protective system that will be used for each job. Don't enter a trench unless there is a protective system in place that was designed and installed by a competent person. Additionally, the competent person must inspect the excavation, adjacent areas, and protective systems. He or she must inspect the excavation every day before work begins, throughout the shift, and after any changes in jobsite or weather conditions that might affect the stability of the trench.

Trenches that are 20 feet deep or deeper must have a protective system that is either designed by a professional engineer, or built based on data prepared and/or approved by a professional engineer.

Rain, dewatering, freeze-thaw cycles, vibrations from nearby traffic or heavy equipment, and the weight of materials near the trench can all cause cave-ins. Work safely in and around excavations: Keep excavated soil and other spoils and materials at least two feet from the trench edge. Never work under a suspended load. Keep heavy equipment as far from the trench as possible. Make sure you always have a safe way to get in and out of the trench. Predicting cave-ins is all but impossible, so protective systems must always be in place.

If you have any doubt about the safety of the trench, stay out and talk with the competent person before you go in.

SAFETY REMINDER

If you have friends or relatives in agriculture, remind them of the dangers of grain-bin entrapment.

NOTES:

SPECIAL TOPICS /EMPLOYEE SAFETY RECOMMENDATIONS/NOTES:

S.A.F.E. CARDS® PLANNED FOR THIS WEEK:

REVIEWED MSDS # SUBJECT:

MEETING DOCUMENTATION:

JOB NAME:

MEETING DATE:

SUPERVISOR:

ATTENDEES:

These instructions do not supersede local, state, or federal regulations.

THE INNOVATIVE EDGE

CCS

COMPOSITE CONSTRUCTION SYSTEMS

Reporting Accidents and Near Misses

Nobody likes having accidents and nobody likes taking the time and making the effort to report them. There are plenty of excuses for not reporting accidents and near misses:

- Reporting it will mean lots of paperwork.
- You aren't sure exactly what you saw.
- Nobody was hurt, at least not too badly.
- You weren't directly involved in the accident or near miss.
- You don't want to get someone in trouble.
- What's done is done; reporting is a waste of time.

But if nobody reports accidents and near misses, we're doomed to keep having the same problems. Eventually, someone will get hurt or killed.

Regardless of company reporting policies, you have to report the following accidents to OSHA:

- Work-related fatalities: report within 8 hours.
- Work-related heart attack, amputation, loss of an eye, and in-patient hospitalization: report within 24 hours.
- Workplace incidents that cause: days away from work, restricted work or transfer to another job, medical treatment beyond first aid, or loss of consciousness must be reported. Incidents that cause any significant injuries or illnesses diagnosed by a doctor or other licensed health care professional must be reported.

Near misses should get the same attention as accidents. What's the difference between an accident and a near miss? A near miss doesn't involve an injury. It's a close call in which someone would have been injured if the circumstances had been just slightly different. For example, if a load of lumber falls off a forklift and almost hits someone—but doesn't—you have a near miss. Often, the only real difference between a near miss and an accident is luck. Near misses should be reported and investigated with the same effort and detail that's put into an accident investigation.

You and your co-workers stand to benefit the most from good accident reporting and investigation. We all need to ask two questions after any accident or near miss: **1)** What went wrong? and **2)** How can we keep it from happening again? The accident report and the investigation help answer those questions. Accidents and near misses have to be reported. It's your responsibility to tell your foreman, your supervisor, or the company owner what happened and what you saw.

The best way to avoid accident reports is to avoid the accidents. Before you start any task, take a few moments and think through the hazards. Figure out what could go wrong, and then take steps to control or eliminate the dangers.

SAFETY REMINDER

Accident reports and investigations identify and correct hazards to make the jobsite safer for everyone.

NOTES:

SPECIAL TOPICS /EMPLOYEE SAFETY RECOMMENDATIONS/NOTES:

S.A.F.E. CARDS® PLANNED FOR THIS WEEK:

REVIEWED MSDS # SUBJECT:

MEETING DOCUMENTATION:

JOB NAME:

MEETING DATE:

SUPERVISOR:

ATTENDEES:

These instructions do not supersede local, state, or federal regulations.

Securing Heavy Equipment

Nearly every construction project involves some kind of heavy equipment. Usually when we talk about heavy equipment safety, we're talking about operational safety. It's just as important to secure heavy equipment at the end of the day. Doing so will prevent vandals or thieves from damaging or stealing equipment. It will also keep curious kids from "playing" with that equipment and causing damage or getting injured themselves.

Here are steps you can take to secure heavy equipment:

- You need to bring the equipment to a complete stop. Don't shut down the engine while any part of the machine is still moving.
- Never park heavy equipment on a hill or grade. We can't have a machine rolling down a hill because a parking brake slipped.
- Lower buckets, blades, and trackhoe arms to the ground.
- Set the brake to prevent accidental movement.
- Retract extended booms on cranes, aerial lifts, and forklifts.
- Lower luffing jibs where possible.
- Leave a tower crane in a free-swing mode.
- Turn off gasoline and diesel engines. Shut off power to motors.
- When appropriate, use mechanical devices like wheel chocks to immobilize equipment.
- Clean out the operator's cab; remove trash, etc.
- Take the keys out, and secure the cab by locking doors and hatches.
- Put the keys to the equipment in a secure place.
- Check around the outside of the machine; make sure there are no broken or leaking lines. Leaking fluids can cause slip hazards and fire hazards.
- Make sure oil and fuel-tank caps are locked.
- Remove or secure access ladders.
- Prevent unauthorized people from starting machines by disconnecting the batteries.
- Leave heavy equipment in a position that makes it possible for the maintenance and fuel crews to safely reach the equipment and do their work during off hours.
- Secure smaller equipment with chains and locks.
- If possible, position equipment in a well-lit area that is visible from the street. Security lights help deter thieves and vandals.
- Close and lock all jobsite gates and access points at the end of the day.

Safety doesn't stop when we go home for the day. We have to keep the site safe and secure so no one—not a bystander, not a kid, not even a thief—gets hurt during off hours.

SAFETY REMINDER

Make equipment harder to steal by surrounding it with objects that are difficult to move.

NOTES:

SPECIAL TOPICS /EMPLOYEE SAFETY RECOMMENDATIONS/NOTES:

S.A.F.E. CARDS® PLANNED FOR THIS WEEK:

REVIEWED MSDS # SUBJECT:

MEETING DOCUMENTATION:

JOB NAME:

MEETING DATE:

SUPERVISOR:

ATTENDEES:

These instructions do not supersede local, state, or federal regulations.